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Mplus syntax

Basic linear model:

```
categorical = phycat16;      !!DEFINES OUTCOME AS CATEGORICAL  
missing ARE ALL (-9999);
```

```
WITHIN = phy15 kes15 choice15 bully15 press15 duties15;  
BETWEEN = prafac;  
cluster = cId15;
```

DEFINE:

```
prafacsq = prafac * prafac; !! Calculates curvilinear terms for wellbeing practices if included in the model  
CENTER phy15 kes15 choice15 bully15 press15 duties15 (GRANDMEAN);
```

!! These are level 1 control variables

ANALYSIS:

```
TYPE = TWOLEVEL RANDOM;
```

```
ESTIMATOR = BAYES;
```

```
THIN = 20;
```

```
CHAINS = 3;
```

```
BCONVERGENCE = .01;
```

```
BITERATIONS = (1000);
```

MODEL:

%WITHIN%

```
phycat16 ON phy15 choice15 bully15 duties15 press15;
```

```
phycat16 ON kes15;
```

```
kes15 WITH phy15 choice15 bully15 press15 duties15;
```

phy15 WITH choice15 bully15 press15 duties15;  
choice15 WITH bully15 press15 duties15;  
bully15 WITH press15 duties15;  
press15 WITH duties15;

%BETWEEN%  
phycat16 ON prafac;

Example of moderation test

```
categorical = phycat16;  
missing ARE ALL (-9999);
```

```
categorical = phycat16;      !!DEFINES OUTCOME AS CATEGORICAL  
missing ARE ALL (-9999);
```

```
WITHIN = phy15 kes15 choice15 bully15 press15 duties15;  
BETWEEN = prafac;  
cluster = cId15;
```

DEFINE:

```
prafacsq = prafac * prafac; !! Calculates curvilinear terms for wellbeing practices if included in the model
```

```
CENTER phy15 kes15 bully15 press15 duties15 (GRANDMEAN);
```

!! These are level 1 control variables, note variable in the moderation test is not included in this command so that the default of group mean centering is used for that variable

ANALYSIS:

```
TYPE = TWOLEVEL RANDOM;
```

```
ESTIMATOR = BAYES;
```

```
THIN = 20;
```

```
CHAINS = 3;
```

```
BCONVERGENCE = .01;
```

```
BITERATIONS = (1000);
```

MODEL:

```
% WITHIN %
```

```
phycat16 ON phy15 bully15 duties15 press15;
```

```
phycat16 ON kes15;
```

```
s1 | phycat16 ON choice15;
```



kes15 WITH phy15 choice15 bully15 press15 duties15;  
phy15 WITH choice15 bully15 press15 duties15;  
choice15 WITH bully15 press15 duties15;  
bully15 WITH press15 duties15;  
press15 WITH duties15;

%BETWEEN%  
phycat16 ON prafac choice15;  
prafac WITH choice15;  
s1 ON prafac;

Example of robustness test, separating out effects of single practices from the combined effects of multiple practices

```
categorical = phycat16;  
missing ARE ALL (-9999);
```

```
WITHIN = phy15 kes15 choice15 bully15 press15 duties15;  
BETWEEN = ACC ACT EAT ALC PHY PSY SMO TER BEN HPR SPR CUL FEL;  
cluster = cId15;
```

```
DEFINE:  
single = ACC;  
CENTER phy15 kes15 choice15 bully15 press15 duties15 (GRANDMEAN);
```

```
ANALYSIS:  
TYPE = TWOLEVEL RANDOM;  
ESTIMATOR = BAYES;  
THIN = 20;  
CHAINS = 3;  
BCONVERGENCE = .01;  
BITERATIONS = (1000);
```

```
MODEL:
```

```
% WITHIN %  
phycat16 ON phy15 choice15 bully15 duties15 press15;  
phycat16 ON kes15;
```

```
kes15 WITH phy15 choice15 bully15 press15 duties15;  
phy15 WITH choice15 bully15 press15 duties15;  
choice15 WITH bully15 press15 duties15;  
bully15 WITH press15 duties15;  
press15 WITH duties15;
```

%BETWEEN%  
PROG BY ACC ACT EAT ALC PHY PSY SMO TER BEN HPR SPR CUL FEL;  
!!This is a latent variable comprising all health and wellbeing practices  
SING BY HPR; !!This is a latent variable representing a single practice  
phycat16 ON PROG SING;  
PROG WITH SING;

## SPSS logistic regression results

### Variable labels

Kescat15 – Kessler dichotomised for selecting cases for analysis (1=high distress)

Kescat16 – Kessler dichotomised as outcome (1=high distress)

Phycat15 – Physical health dichotomised for selecting cases for analysis (1=poor physical health)

Phycat16 – Physical health dichotomised as outcome (1=poor physical health)

Physical\_health - 2105 physical health, continuous variable

Kess\_t15 – 2015 Kessler score, continuous variable

choice\_freq – job control

bullying\_freq - bullying

time\_pressure\_freq – time pressure

duties\_freq – role clarity

FAC1\_1 – first principal component of health and wellbeing practices

Facsq –  $FAC1_1 * FAC1_1$

\* Encoding: UTF-8.

```
COMPUTE facsq = FAC1_1 * FAC1_1.
```

```
USE ALL.
```

```
COMPUTE filter_$(kescat15 = 0).
```

```
VARIABLE LABELS filter_$ 'kescat15 = 0 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMATS filter_$ (f1.0).  
FILTER BY filter_$.
```

```
EXECUTE.
```

```
correlations /variables = kescat16 kescat15 fac1_1.
```

## Correlations

### Notes

Output Created		16-AUG-2021 11:07:25
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>

	Split File	<none>
	N of Rows in Working Data File	5855
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		correlations/variables = kescat16 kescat15 fac1_1.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.04

### Correlations

		Kessler16 > 1 = 1	Kessler15 > 1 = 1	REGR factor score 1 for analysis 1
Kessler16 > 1 = 1	Pearson Correlation	1	. <sup>a</sup>	-.012
	Sig. (2-tailed)		.	.344
	N	5855	5855	5855
Kessler15 > 1 = 1	Pearson Correlation	. <sup>a</sup>	. <sup>a</sup>	. <sup>a</sup>
	Sig. (2-tailed)	.	.	.
	N	5855	5855	5855
REGR factor score 1 for analysis 1	Pearson Correlation	-.012	. <sup>a</sup>	1
	Sig. (2-tailed)	.344	.	
	N	5855	5855	5855

a. Cannot be computed because at least one of the variables is constant.

```

*Generalized Linear Mixed Models.
GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

Notes		
Output Created		16-AUG-2021 11:07:25
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)

Weight	<none>
Split File	<none>
N of Rows in Working Data File	5855



## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.80
	Elapsed Time	00:00:01.85

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5339	91.2%
Excluded	516	8.8%
Total	5855	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	29406.079
	Bayesian	29412.659

Information criteria are based on the -2 log likelihood (29404.078) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	1.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	18	583
	% within Observed	3.0%	97.0%
.00	Count	15	4723
	% within Observed	0.3%	99.7%

a. Target: Kessler16 > 1 = 1

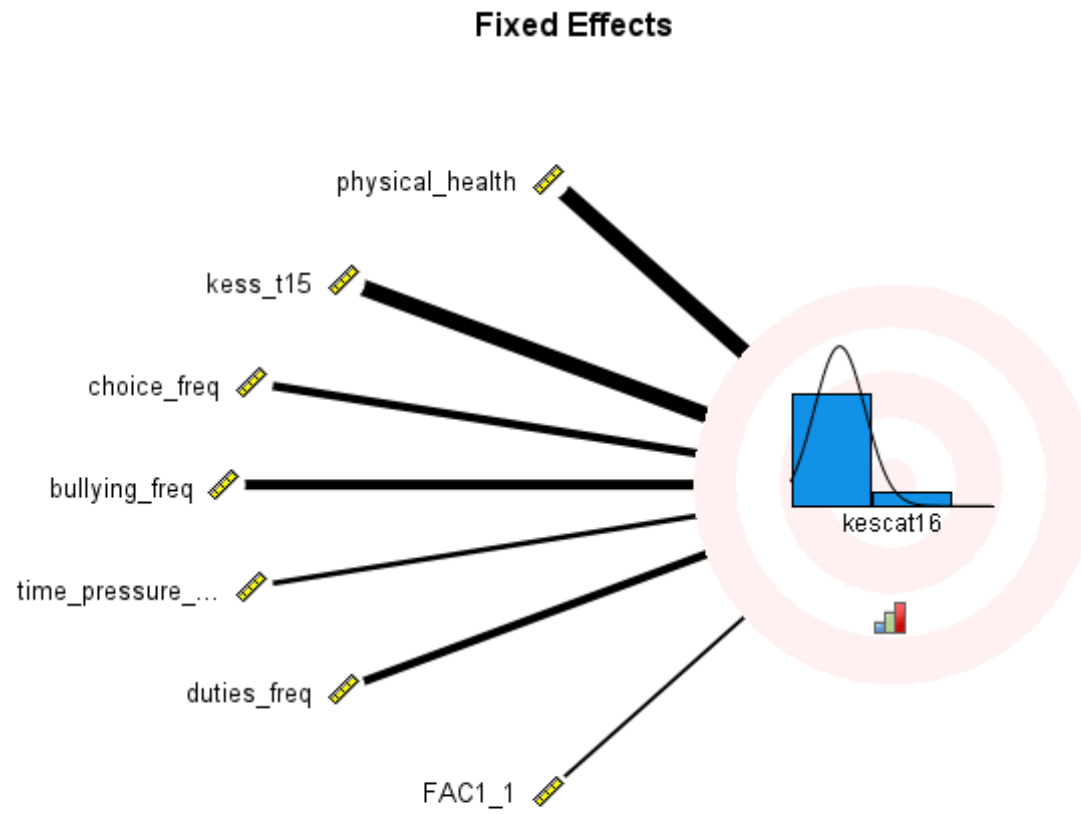
**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	167.653	7	5331	.000
physical_health	33.715	1	5331	.000
kess_t15	575.934	1	5331	.000
choice_freq	4.516	1	5331	.034
bullying_freq	6.654	1	5331	.010
time_pressure_freq	2.064	1	5331	.151
duties_freq	4.472	1	5331	.034
FAC1_1	.672	1	5331	.412

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



### Fixed Coefficients<sup>a</sup>

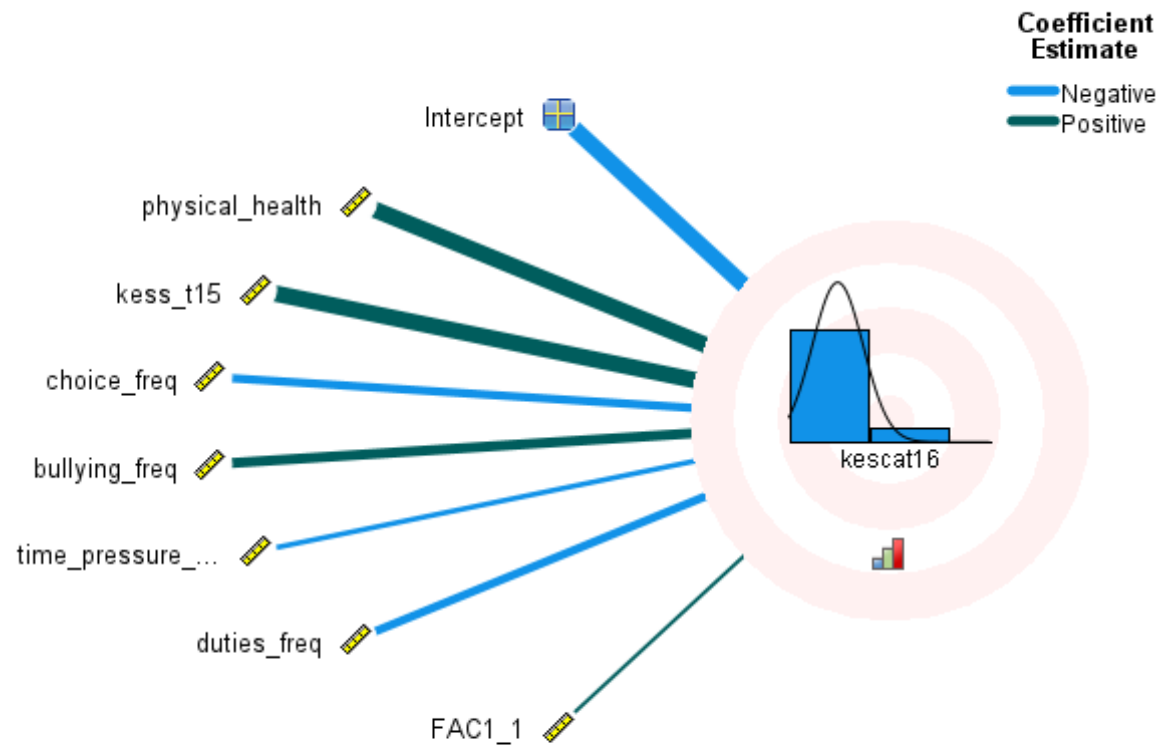
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-3.182	.4691	-6.783	.000	-4.101	-2.262	.042	.017	.104
physical_health	.241	.0415	5.806	.000	.159	.322	1.272	1.173	1.380
kess_t15	3.019	.1258	23.999	.000	2.773	3.266	20.479	16.002	26.207
choice_freq	-.097	.0458	-2.125	.034	-.187	-.008	.907	.829	.992
bullying_freq	.199	.0771	2.579	.010	.048	.350	1.220	1.049	1.419
time_pressure_freq	-.065	.0450	-1.437	.151	-.153	.024	.937	.858	1.024
duties_freq	-.151	.0713	-2.115	.034	-.291	-.011	.860	.748	.989
FAC1_1	.035	.0426	.820	.412	-.049	.119	1.036	.953	1.126

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.021

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	8
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.



### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.021	.019	1.063	.288	.003	.130

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.007	.134	5331	.961	-.256	.269

4	Intercept	.011	.138	5331	.938	-.259	.280
6	Intercept	.003	.136	5331	.980	-.264	.271
22	Intercept	-.009	.143	5331	.949	-.289	.271
24	Intercept	-.029	.126	5331	.817	-.276	.218
30	Intercept	-.005	.139	5331	.973	-.277	.268
36	Intercept	.037	.136	5331	.787	-.230	.304
40	Intercept	.084	.137	5331	.541	-.185	.353
50	Intercept	.007	.139	5331	.962	-.267	.280
61	Intercept	-.028	.137	5331	.836	-.297	.240
65	Intercept	.021	.141	5331	.884	-.256	.297
68	Intercept	-.037	.136	5331	.786	-.304	.230
69	Intercept	.030	.136	5331	.823	-.237	.298
71	Intercept	.033	.140	5331	.814	-.242	.308
72	Intercept	-.007	.140	5331	.959	-.281	.267
74	Intercept	-.037	.140	5331	.792	-.312	.238
75	Intercept	-.041	.138	5331	.769	-.312	.231
80	Intercept	.018	.142	5331	.902	-.261	.296
81	Intercept	-.014	.138	5331	.921	-.284	.257
83	Intercept	.023	.138	5331	.870	-.248	.293
84	Intercept	-.020	.139	5331	.888	-.292	.253
92	Intercept	-.003	.137	5331	.980	-.271	.264
93	Intercept	-.003	.137	5331	.980	-.272	.265
98	Intercept	.066	.133	5331	.621	-.195	.327
100	Intercept	.062	.096	5331	.519	-.126	.250
106	Intercept	.021	.139	5331	.881	-.252	.293
107	Intercept	-.015	.138	5331	.912	-.286	.255

108	Intercept	-.026	.140	5331	.854	-.300	.248
110	Intercept	-.172	.104	5331	.096	-.375	.031
114	Intercept	.022	.138	5331	.872	-.248	.293
116	Intercept	.039	.135	5331	.776	-.227	.304
122	Intercept	.063	.130	5331	.627	-.192	.319
125	Intercept	-.039	.122	5331	.748	-.279	.200
142	Intercept	-.064	.132	5331	.625	-.322	.194
144	Intercept	.010	.135	5331	.938	-.254	.275
145	Intercept	.004	.136	5331	.978	-.263	.271
152	Intercept	.005	.136	5331	.971	-.261	.271
154	Intercept	-.033	.136	5331	.808	-.299	.233
156	Intercept	.036	.134	5331	.787	-.227	.299
162	Intercept	.030	.137	5331	.825	-.238	.298
165	Intercept	.022	.138	5331	.876	-.249	.293
166	Intercept	-.028	.142	5331	.846	-.306	.250
169	Intercept	-.047	.138	5331	.730	-.317	.223
170	Intercept	.054	.139	5331	.697	-.218	.326
173	Intercept	-.047	.138	5331	.735	-.317	.224
174	Intercept	-.018	.138	5331	.897	-.287	.252
178	Intercept	.019	.134	5331	.889	-.244	.282
181	Intercept	.040	.140	5331	.774	-.234	.315
182	Intercept	.018	.140	5331	.895	-.256	.293
192	Intercept	-.037	.139	5331	.791	-.310	.236
202	Intercept	.058	.132	5331	.660	-.201	.318
204	Intercept	-.147	.124	5331	.237	-.390	.097
205	Intercept	-.020	.141	5331	.885	-.297	.256

206	Intercept	-.011	.138	5331	.936	-.281	.259
209	Intercept	.038	.124	5331	.756	-.204	.281
217	Intercept	.132	.113	5331	.245	-.090	.355
226	Intercept	-.021	.138	5331	.877	-.292	.250
228	Intercept	-.053	.140	5331	.704	-.327	.220

a. Target: Kessler16 > 1 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
  FAC1_1 facsq USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:27
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5855

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1 facsq
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:02.09
	Elapsed Time	00:00:02.02

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5339	91.2%
Excluded	516	8.8%
Total	5855	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	29409.337
	Bayesian	29415.917

Information criteria are based on the -2 log likelihood (29407.336) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	1.00
Total Number of Levels	58	

Only the first 10 records are displayed.



a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	18	583
	% within Observed	3.0%	97.0%
.00	Count	14	4724
	% within Observed	0.3%	99.7%

a. Target: Kessler16 > 1 = 1

**Fixed Effects<sup>a</sup>**

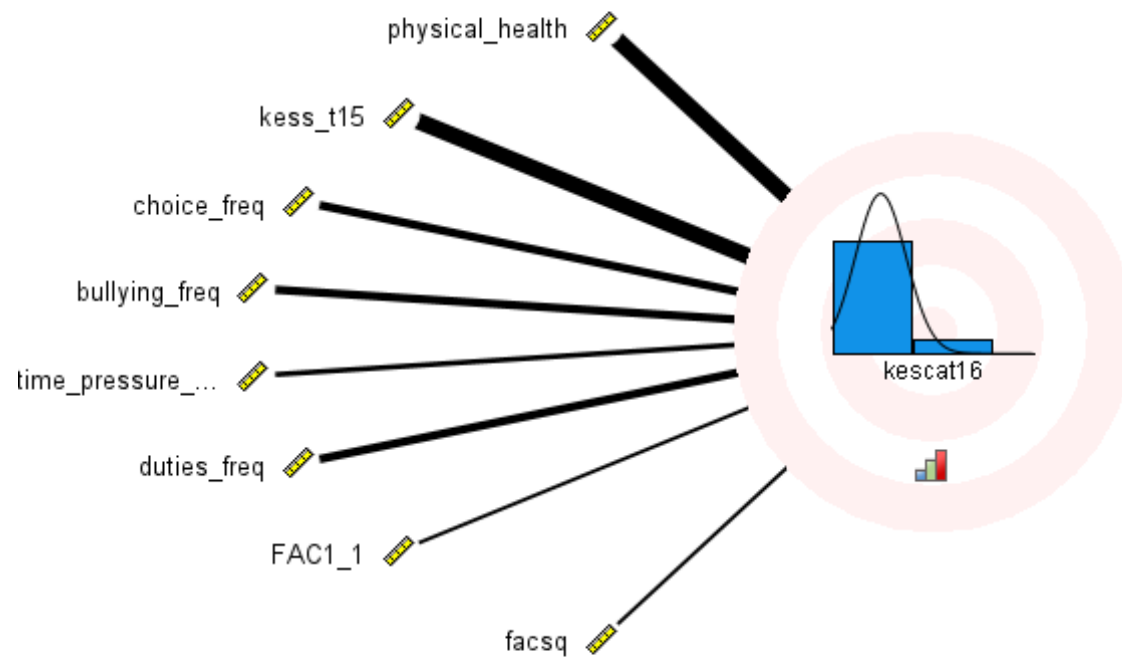
Source	F	df1	df2	Sig.
Corrected Model	149.705	8	5330	.000
physical_health	33.511	1	5330	.000
kess_t15	576.846	1	5330	.000
choice_freq	4.387	1	5330	.036
bullying_freq	6.637	1	5330	.010
time_pressure_freq	2.120	1	5330	.145
duties_freq	4.469	1	5330	.035
FAC1_1	.570	1	5330	.450
facsq	.306	1	5330	.580

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Kessler16} > 1 = 1$

### Fixed Effects



### Fixed Coefficients<sup>a</sup>

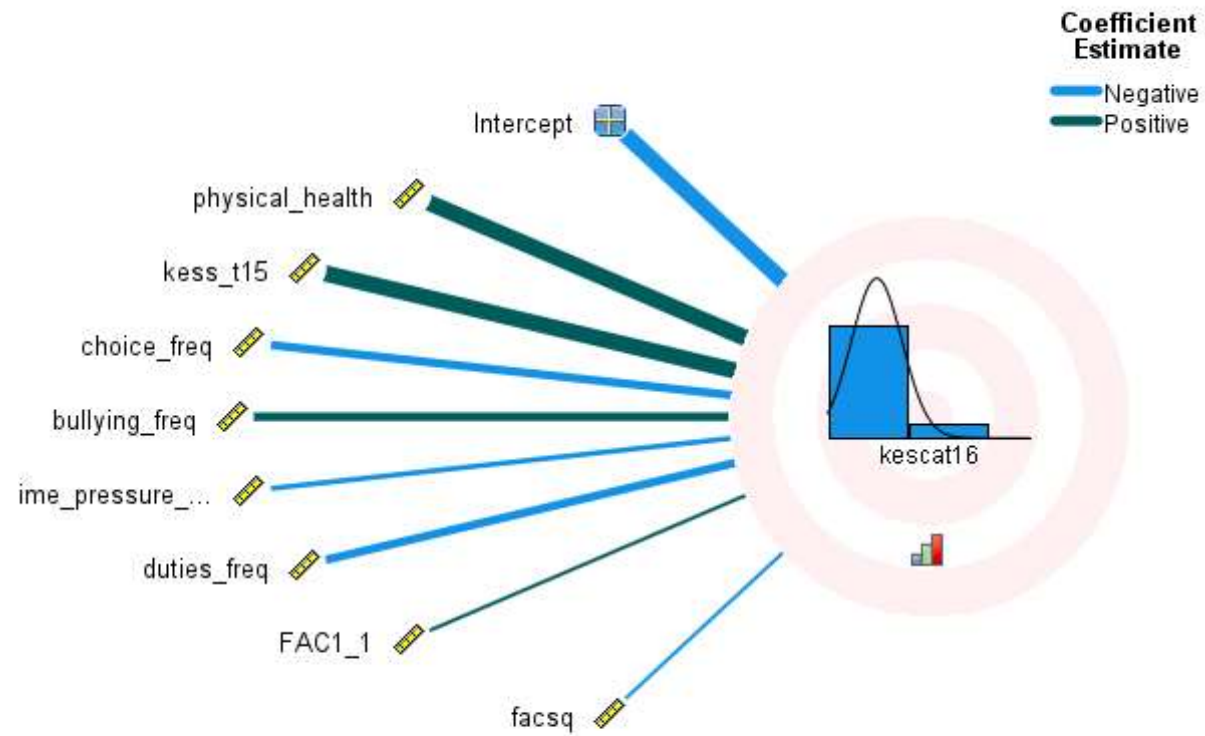
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-3.162	.4693	-6.737	.000	-4.082	-2.242	.042	.017	.106
physical_health	.240	.0415	5.789	.000	.159	.321	1.271	1.172	1.379
kess_t15	3.019	.1257	24.018	.000	2.773	3.266	20.475	16.003	26.197
choice_freq	-.096	.0460	-2.095	.036	-.187	-.006	.908	.830	.994
bullying_freq	.199	.0771	2.576	.010	.047	.350	1.220	1.049	1.419
time_pressure_freq	-.065	.0448	-1.456	.145	-.153	.023	.937	.858	1.023
duties_freq	-.151	.0713	-2.114	.035	-.291	-.011	.860	.748	.989
FAC1_1	.032	.0426	.755	.450	-.051	.116	1.033	.950	1.123
facsq	-.018	.0325	-.553	.580	-.082	.046	.982	.922	1.047

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.021

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	9
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.021	.020	1.058	.290	.003	.135

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.008	.136	5330	.951	-.258	.274

4	Intercept	.018	.140	5330	.897	-.256	.293
6	Intercept	.009	.139	5330	.947	-.262	.281
22	Intercept	-.009	.145	5330	.948	-.293	.275
24	Intercept	-.031	.127	5330	.810	-.280	.219
30	Intercept	-.003	.141	5330	.982	-.279	.273
36	Intercept	.036	.138	5330	.795	-.234	.306
40	Intercept	.085	.139	5330	.542	-.188	.357
50	Intercept	.006	.141	5330	.966	-.271	.283
61	Intercept	-.028	.139	5330	.838	-.300	.243
65	Intercept	.024	.143	5330	.868	-.257	.304
68	Intercept	-.039	.138	5330	.776	-.309	.231
69	Intercept	.029	.138	5330	.832	-.242	.300
71	Intercept	.035	.142	5330	.804	-.243	.313
72	Intercept	-.005	.142	5330	.972	-.283	.273
74	Intercept	-.037	.142	5330	.792	-.316	.241
75	Intercept	-.040	.140	5330	.773	-.315	.234
80	Intercept	.018	.144	5330	.902	-.264	.300
81	Intercept	-.015	.140	5330	.912	-.289	.258
83	Intercept	.024	.140	5330	.861	-.249	.298
84	Intercept	-.021	.141	5330	.880	-.297	.255
92	Intercept	-.002	.138	5330	.991	-.273	.269
93	Intercept	2.226E-5	.139	5330	1.000	-.273	.273
98	Intercept	.070	.135	5330	.606	-.195	.334
100	Intercept	.053	.099	5330	.594	-.142	.248
106	Intercept	.020	.141	5330	.886	-.256	.296
107	Intercept	-.017	.140	5330	.903	-.291	.257

108	Intercept	-.022	.142	5330	.874	-.301	.256
110	Intercept	-.174	.104	5330	.095	-.379	.030
114	Intercept	.022	.140	5330	.877	-.252	.296
116	Intercept	.038	.137	5330	.782	-.231	.307
122	Intercept	.061	.132	5330	.642	-.197	.320
125	Intercept	-.039	.123	5330	.754	-.280	.203
142	Intercept	-.068	.133	5330	.607	-.329	.192
144	Intercept	.014	.137	5330	.916	-.253	.282
145	Intercept	.002	.138	5330	.989	-.268	.272
152	Intercept	.009	.137	5330	.951	-.261	.278
154	Intercept	-.034	.137	5330	.803	-.303	.235
156	Intercept	.039	.136	5330	.773	-.227	.306
162	Intercept	.033	.138	5330	.814	-.239	.304
165	Intercept	.024	.140	5330	.862	-.250	.299
166	Intercept	-.029	.144	5330	.841	-.311	.253
169	Intercept	-.043	.140	5330	.761	-.317	.232
170	Intercept	.054	.140	5330	.698	-.221	.329
173	Intercept	-.049	.140	5330	.728	-.323	.225
174	Intercept	-.020	.139	5330	.887	-.293	.253
178	Intercept	.017	.136	5330	.903	-.250	.283
181	Intercept	.041	.142	5330	.775	-.237	.318
182	Intercept	.018	.142	5330	.897	-.259	.296
192	Intercept	-.036	.141	5330	.799	-.313	.241
202	Intercept	.058	.134	5330	.663	-.204	.321
204	Intercept	-.155	.126	5330	.219	-.402	.092
205	Intercept	-.021	.143	5330	.881	-.302	.259



206	Intercept	-.013	.139	5330	.927	-.286	.261
209	Intercept	.034	.125	5330	.786	-.212	.280
217	Intercept	.130	.115	5330	.256	-.095	.356
226	Intercept	-.022	.140	5330	.873	-.297	.252
228	Intercept	-.056	.141	5330	.694	-.332	.221

a. Target: Kessler16 > 1 = 1

AGGREGATE

```

/OUTFILE=* MODE=ADDVARIABLES OVERWRITE = YES
/BREAK=companyId15
/choicec1=MEAN(choice_freq)
/bullyc1=MEAN(bullying_freq)
/timec1=MEAN(time_pressure_freq)
/dutiesc1=MEAN(duties_freq).

```

```

COMPUTE choicec1 = choice_freq - choicec1.
COMPUTE bullyc1 = bullying_freq - bullyc1.
COMPUTE timec1 = time_pressure_freq - timec1.
COMPUTE dutiesc1 = duties_freq - dutiesc1.

```

```

COMPUTE fac1choi = fac1_1 * choicec1.
COMPUTE fac1bull = fac1_1 * bullyc1.
COMPUTE fac1time = fac1_1 * timec1.
COMPUTE fac1duti = fac1_1 * dutiesc1.

```

GENLINMIXED

```

/DATA_STRUCTURE SUBJECTS=companyId15
/FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/FIXED EFFECTS=physical_health kess_t15 choicec1 choicec1 fac1choi
bullying_freq time_pressure_freq duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
SCORING=0 SINGULAR=0.000000000001
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created		16-AUG-2021 11:07:29
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5855

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choicecwc1 choicem1
fac1choi
  bullying_freq time_pressure_freq
duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
```

		MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.97
	Elapsed Time	00:00:01.97

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5339	91.2%

Excluded	516	8.8%
Total	5855	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	29410.821
	Bayesian	29417.402

Information criteria are based on the -2 log likelihood (29408.821) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	.00

	2	1.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

### Classification

Overall Percent Correct = 88.8%<sup>a</sup>

Observed		Predicted	
		1.00	.00
1.00	Count	18	583
	% within Observed	3.0%	97.0%
.00	Count	14	4724
	% within Observed	0.3%	99.7%

a. Target: Kessler16 > 1 = 1

### Fixed Effects<sup>a</sup>

Source	F	df1	df2	Sig.
Corrected Model	130.547	9	5329	.000
physical_health	33.912	1	5329	.000
kess_t15	570.175	1	5329	.000
choicecwc1	4.133	1	5329	.042
choicem1	.110	1	5329	.740
fac1choi	.005	1	5329	.942
bullying_freq	6.619	1	5329	.010

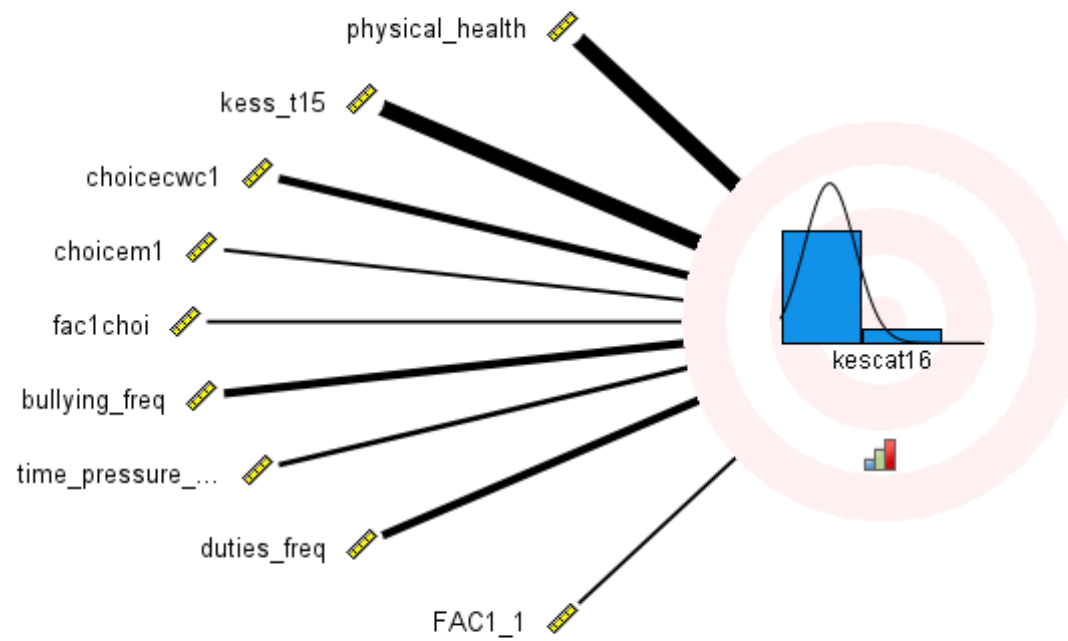
time_pressure_freq	2.120	1	5329	.145
duties_freq	4.452	1	5329	.035
FAC1_1	.524	1	5329	.469

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



## Fixed Coefficients<sup>a</sup>



Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-3.219	.8637	-3.727	.000	-4.912	-1.526	.040	.007	.217
physical_health	.241	.0413	5.823	.000	.160	.322	1.272	1.173	1.379
kess_t15	3.020	.1265	23.878	.000	2.772	3.268	20.491	15.991	26.257
choicecwc1	-.098	.0480	-2.033	.042	-.192	-.003	.907	.825	.997
choicem1	-.086	.2593	-.332	.740	-.594	.422	.918	.552	1.525
fac1choi	-.004	.0523	-.072	.942	-.106	.099	.996	.899	1.104
bullying_freq	.200	.0776	2.573	.010	.048	.352	1.221	1.049	1.422
time_pressure_freq	-.064	.0442	-1.456	.145	-.151	.022	.938	.860	1.023
duties_freq	-.151	.0716	-2.110	.035	-.291	-.011	.860	.747	.989
FAC1_1	.035	.0482	.724	.469	-.060	.129	1.036	.942	1.138

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.023

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.023	.020	1.105	.269	.004	.133

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.007	.140	5329	.962	-.267	.280

4	Intercept	.011	.144	5329	.939	-.270	.293
6	Intercept	.004	.142	5329	.979	-.275	.283
22	Intercept	-.010	.150	5329	.947	-.304	.284
24	Intercept	-.031	.131	5329	.810	-.288	.225
30	Intercept	-.005	.145	5329	.971	-.290	.279
36	Intercept	.040	.142	5329	.779	-.238	.318
40	Intercept	.091	.143	5329	.524	-.189	.372
50	Intercept	.007	.146	5329	.962	-.279	.293
61	Intercept	-.031	.143	5329	.827	-.311	.249
65	Intercept	.023	.148	5329	.879	-.267	.312
68	Intercept	-.041	.142	5329	.774	-.320	.238
69	Intercept	.033	.142	5329	.816	-.246	.312
71	Intercept	.036	.146	5329	.805	-.251	.323
72	Intercept	-.008	.146	5329	.956	-.294	.278
74	Intercept	-.040	.147	5329	.784	-.328	.247
75	Intercept	-.044	.145	5329	.760	-.328	.239
80	Intercept	.019	.149	5329	.897	-.272	.311
81	Intercept	-.015	.144	5329	.918	-.297	.268
83	Intercept	.025	.144	5329	.863	-.258	.307
84	Intercept	-.022	.145	5329	.881	-.306	.263
92	Intercept	-.004	.142	5329	.979	-.283	.275
93	Intercept	-.004	.143	5329	.979	-.285	.277
98	Intercept	.072	.139	5329	.606	-.200	.343
100	Intercept	.066	.112	5329	.554	-.153	.285
106	Intercept	.022	.145	5329	.878	-.263	.308
107	Intercept	-.017	.144	5329	.907	-.299	.266

108	Intercept	-.029	.146	5329	.845	-.315	.258
110	Intercept	-.180	.107	5329	.093	-.390	.030
114	Intercept	.024	.144	5329	.867	-.259	.307
116	Intercept	.042	.141	5329	.766	-.235	.319
122	Intercept	.069	.136	5329	.614	-.198	.336
125	Intercept	-.042	.127	5329	.739	-.290	.206
142	Intercept	-.069	.137	5329	.613	-.338	.199
144	Intercept	.011	.140	5329	.938	-.264	.286
145	Intercept	.004	.142	5329	.976	-.274	.283
152	Intercept	.005	.142	5329	.971	-.272	.283
154	Intercept	-.036	.141	5329	.798	-.313	.241
156	Intercept	.040	.140	5329	.777	-.235	.314
162	Intercept	.032	.143	5329	.820	-.247	.312
165	Intercept	.023	.144	5329	.873	-.260	.306
166	Intercept	-.030	.148	5329	.838	-.321	.261
169	Intercept	-.052	.144	5329	.719	-.334	.230
170	Intercept	.059	.145	5329	.685	-.225	.343
173	Intercept	-.051	.144	5329	.724	-.334	.232
174	Intercept	-.020	.144	5329	.890	-.301	.262
178	Intercept	.020	.140	5329	.887	-.254	.294
181	Intercept	.044	.146	5329	.764	-.243	.331
182	Intercept	.020	.146	5329	.892	-.267	.307
192	Intercept	-.040	.146	5329	.782	-.326	.245
202	Intercept	.063	.138	5329	.649	-.207	.333
204	Intercept	-.156	.135	5329	.249	-.421	.109
205	Intercept	-.022	.148	5329	.880	-.312	.267

206	Intercept	-.012	.144	5329	.933	-.294	.270
209	Intercept	.042	.131	5329	.749	-.215	.299
217	Intercept	.140	.124	5329	.256	-.102	.383
226	Intercept	-.023	.144	5329	.873	-.306	.260
228	Intercept	-.058	.146	5329	.690	-.344	.228

a. Target: Kessler16 > 1 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullycwcl bullyml fac1bull
time_pressure_freq duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:31
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5855



## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullycwc1
bullym1 fac1bull
  time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.39
	Elapsed Time	00:00:01.42

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	5339	91.2%
Excluded	516	8.8%
Total	5855	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	27761.298
	Bayesian	27767.878

Information criteria are based on the -2 log likelihood (27759.297) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00

	2	.00
	2	.00
	2	1.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	10	591
	% within Observed	1.7%	98.3%
.00	Count	6	4732
	% within Observed	0.1%	99.9%

a. Target: Kessler16 > 1 = 1

Fixed Effects <sup>a</sup>				
Source	F	df1	df2	Sig.
Corrected Model	137.435	9	5329	.000
physical_health	28.295	1	5329	.000
kess_t15	482.619	1	5329	.000
choice_freq	4.615	1	5329	.032
bullycwc1	7.909	1	5329	.005

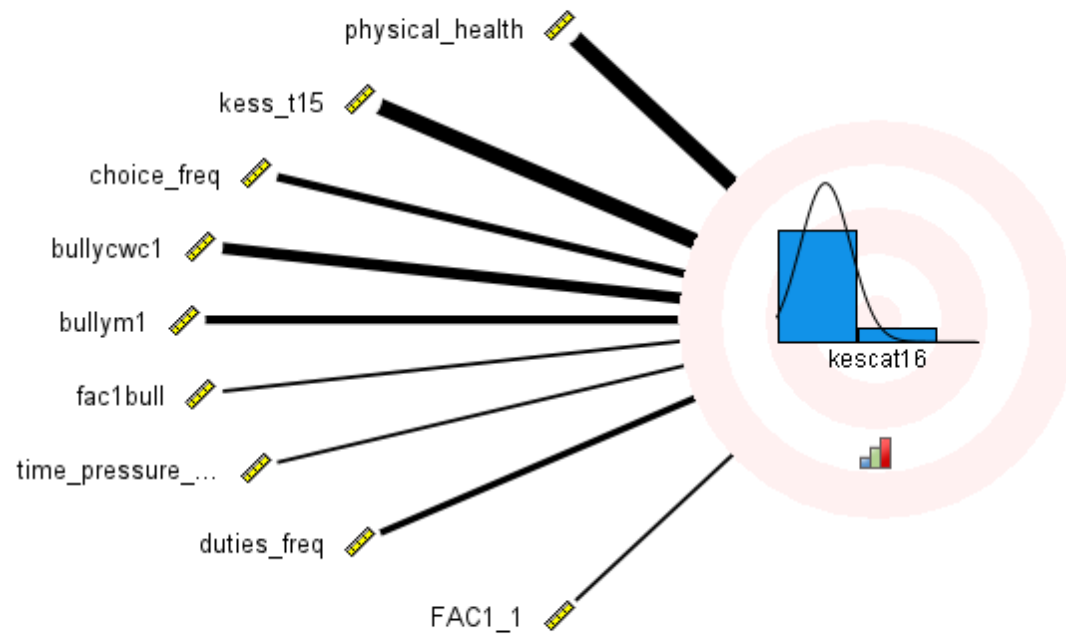
bullym1	5.174	1	5329	.023
fac1bull	.015	1	5329	.902
time_pressure_freq	1.394	1	5329	.238
duties_freq	3.570	1	5329	.059
FAC1_1	.432	1	5329	.511

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



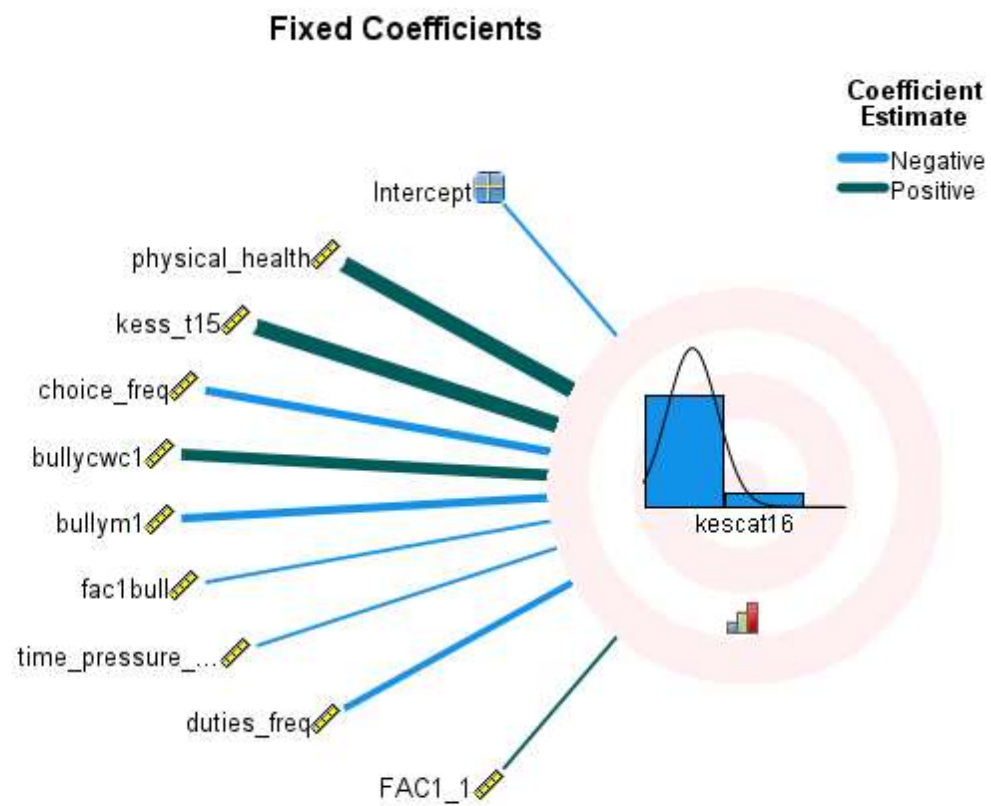
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-.740	1.1056	-.670	.503	-2.908	1.427	.477	.055	4.166
physical_health	.206	.0387	5.319	.000	.130	.282	1.229	1.139	1.325
kess_t15	2.595	.1181	21.969	.000	2.363	2.826	13.392	10.624	16.881
choice_freq	-.087	.0407	-2.148	.032	-.167	-.008	.916	.846	.992
bullycwc1	.212	.0753	2.812	.005	.064	.360	1.236	1.066	1.433
bullym1	-1.716	.7542	-2.275	.023	-3.194	-.237	.180	.041	.789
fac1bull	-.010	.0804	-.124	.902	-.168	.148	.990	.846	1.159
time_pressure_freq	-.048	.0404	-1.181	.238	-.127	.031	.953	.881	1.032
duties_freq	-.125	.0661	-1.889	.059	-.255	.005	.883	.775	1.005
FAC1_1	.025	.0385	.657	.511	-.050	.101	1.026	.951	1.106

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**



### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	1.030E-11 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-2.236E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
4	Intercept	2.520E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
6	Intercept	-5.782E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
22	Intercept	-1.089E-13	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
24	Intercept	-7.614E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
30	Intercept	1.745E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
36	Intercept	1.812E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
40	Intercept	3.689E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
50	Intercept	3.675E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
61	Intercept	-1.603E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
65	Intercept	1.293E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
68	Intercept	-2.652E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
69	Intercept	1.339E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
71	Intercept	1.788E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
72	Intercept	-5.321E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
74	Intercept	-1.594E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
75	Intercept	-2.445E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
80	Intercept	4.513E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
81	Intercept	-7.347E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
83	Intercept	1.360E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
84	Intercept	-1.824E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
92	Intercept	-7.583E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
93	Intercept	1.535E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
98	Intercept	3.321E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
100	Intercept	1.153E-10	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
106	Intercept	6.036E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6

107	Intercept	-1.562E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
108	Intercept	-2.093E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
110	Intercept	-1.061E-10	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
114	Intercept	3.930E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
116	Intercept	1.201E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
122	Intercept	4.152E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
125	Intercept	-4.056E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
142	Intercept	-2.845E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
144	Intercept	-3.032E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
145	Intercept	-1.302E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
152	Intercept	8.773E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
154	Intercept	-1.298E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
156	Intercept	4.353E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
162	Intercept	2.094E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
165	Intercept	7.077E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
166	Intercept	-1.538E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
169	Intercept	-3.135E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
170	Intercept	2.198E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
173	Intercept	-3.346E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
174	Intercept	-1.689E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
178	Intercept	6.052E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
181	Intercept	3.149E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
182	Intercept	1.021E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
192	Intercept	-1.675E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
202	Intercept	3.522E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
204	Intercept	-5.082E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6

205	Intercept	-1.012E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
206	Intercept	-9.643E-12	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
209	Intercept	2.572E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
217	Intercept	9.219E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
226	Intercept	-1.646E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6
228	Intercept	-2.957E-11	3.209E-6	5329	1.000	-6.291E-6	6.291E-6

a. Target: Kessler16 > 1 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq timecwcl timem1 fac1time
  duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created

16-AUG-2021 11:07:33

Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5855

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
timecwc1 timem1 fac1time
duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:02.00
	Elapsed Time	00:00:01.89

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5339	91.2%
Excluded	516	8.8%
Total	5855	100.0%



### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	29422.407
	Bayesian	29428.987

Information criteria are based on the -2 log likelihood (29420.406) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	1.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 88.9%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	20	581
	% within Observed	3.3%	96.7%
.00	Count	14	4724
	% within Observed	0.3%	99.7%

a. Target: Kessler16 > 1 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	150.562	9	5329	.000
physical_health	34.361	1	5329	.000
kess_t15	573.911	1	5329	.000
choice_freq	4.732	1	5329	.030
bullying_freq	6.754	1	5329	.009
timecwc1	1.622	1	5329	.203
timem1	3.651	1	5329	.056
fac1time	1.340	1	5329	.247
duties_freq	4.344	1	5329	.037

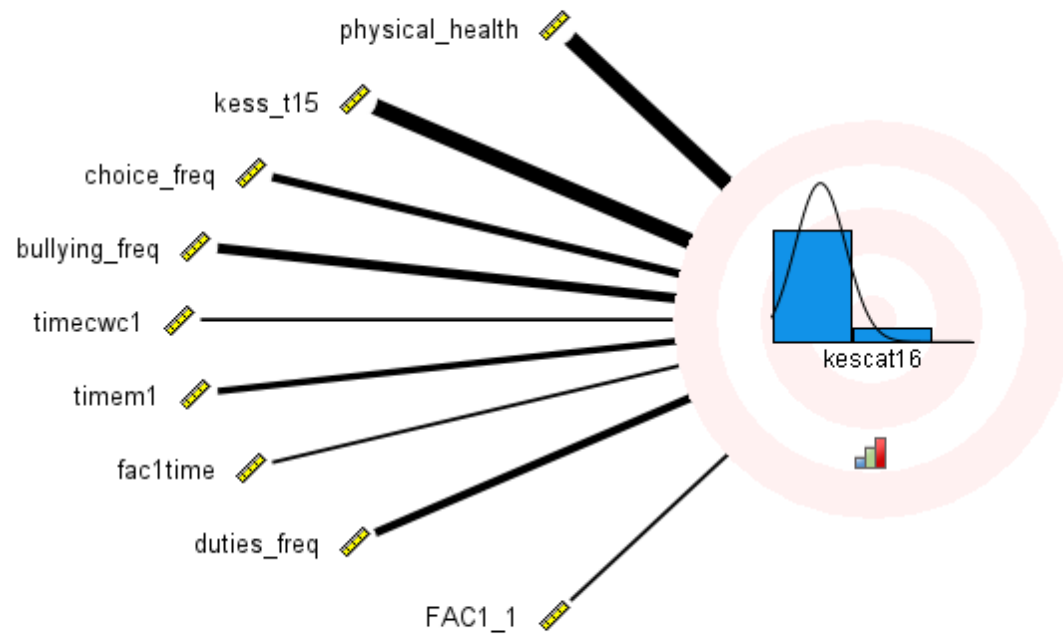
FAC1_1	.804	1	5329	.370
--------	------	---	------	------

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Kessler16} > 1 = 1$

## Fixed Effects



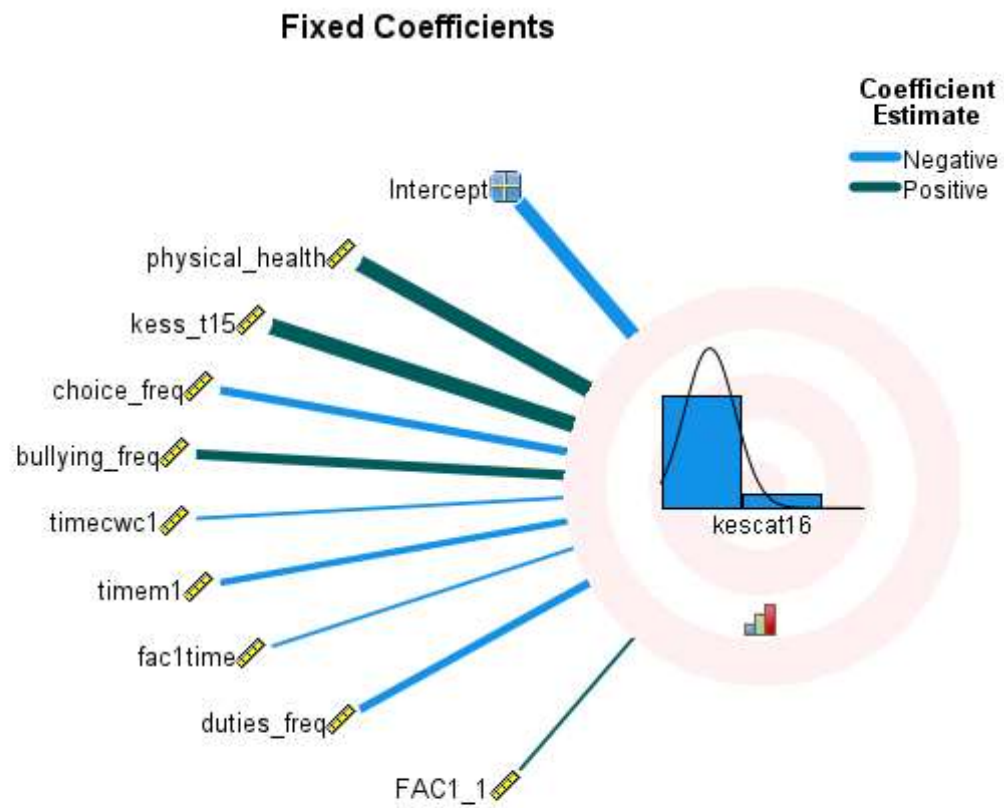
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-2.469	.6828	-3.616	.000	-3.807	-1.130	.085	.022	.323
physical_health	.243	.0414	5.862	.000	.162	.324	1.275	1.175	1.383
kess_t15	3.016	.1259	23.956	.000	2.769	3.262	20.402	15.940	26.112
choice_freq	-.099	.0457	-2.175	.030	-.189	-.010	.905	.828	.990
bullying_freq	.201	.0773	2.599	.009	.049	.353	1.223	1.051	1.423
timecwc1	-.050	.0390	-1.274	.203	-.126	.027	.952	.881	1.027
timem1	-.362	.1896	-1.911	.056	-.734	.009	.696	.480	1.009
fac1time	-.039	.0333	-1.157	.247	-.104	.027	.962	.901	1.027
duties_freq	-.149	.0716	-2.084	.037	-.290	-.009	.861	.749	.991
FAC1_1	.037	.0415	.897	.370	-.044	.119	1.038	.957	1.126

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.017

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.017	.018	.935	.350	.002	.136

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.007	.122	5329	.956	-.233	.247



4	Intercept	.001	.125	5329	.994	-.244	.246
6	Intercept	.000	.124	5329	.998	-.243	.243
22	Intercept	-.008	.129	5329	.953	-.261	.245
24	Intercept	-.009	.117	5329	.936	-.239	.220
30	Intercept	-.008	.126	5329	.948	-.255	.239
36	Intercept	.030	.124	5329	.807	-.213	.273
40	Intercept	.070	.125	5329	.576	-.175	.315
50	Intercept	.000	.126	5329	.999	-.247	.247
61	Intercept	-.030	.124	5329	.812	-.273	.214
65	Intercept	.012	.128	5329	.928	-.238	.262
68	Intercept	-.034	.124	5329	.786	-.277	.209
69	Intercept	.032	.125	5329	.795	-.212	.277
71	Intercept	.031	.127	5329	.809	-.218	.280
72	Intercept	-.011	.126	5329	.928	-.259	.236
74	Intercept	-.030	.127	5329	.814	-.279	.219
75	Intercept	-.034	.126	5329	.787	-.280	.212
80	Intercept	.011	.128	5329	.932	-.240	.262
81	Intercept	-.021	.125	5329	.869	-.266	.225
83	Intercept	.018	.125	5329	.883	-.227	.264
84	Intercept	-.015	.126	5329	.906	-.262	.232
92	Intercept	-.003	.124	5329	.981	-.246	.241
93	Intercept	-.004	.125	5329	.973	-.249	.240
98	Intercept	.061	.122	5329	.619	-.178	.300
100	Intercept	.075	.093	5329	.417	-.107	.257
106	Intercept	.017	.126	5329	.893	-.230	.264
107	Intercept	-.017	.125	5329	.895	-.262	.229

108	Intercept	-.016	.127	5329	.899	-.265	.233
110	Intercept	-.140	.098	5329	.152	-.333	.052
114	Intercept	.016	.125	5329	.898	-.230	.262
116	Intercept	.024	.123	5329	.843	-.217	.266
122	Intercept	.066	.120	5329	.585	-.170	.301
125	Intercept	-.005	.115	5329	.964	-.231	.221
142	Intercept	-.034	.122	5329	.778	-.273	.204
144	Intercept	.001	.123	5329	.993	-.239	.242
145	Intercept	.004	.124	5329	.972	-.239	.247
152	Intercept	.004	.124	5329	.971	-.238	.247
154	Intercept	-.026	.124	5329	.834	-.268	.216
156	Intercept	.018	.122	5329	.885	-.222	.257
162	Intercept	.022	.124	5329	.859	-.222	.266
165	Intercept	.018	.126	5329	.887	-.228	.264
166	Intercept	-.021	.128	5329	.870	-.272	.231
169	Intercept	-.040	.125	5329	.752	-.285	.206
170	Intercept	.037	.126	5329	.766	-.209	.284
173	Intercept	-.053	.125	5329	.673	-.298	.193
174	Intercept	-.013	.125	5329	.919	-.258	.232
178	Intercept	.018	.123	5329	.884	-.222	.258
181	Intercept	.031	.127	5329	.807	-.217	.280
182	Intercept	.004	.126	5329	.977	-.244	.252
192	Intercept	-.033	.126	5329	.795	-.280	.215
202	Intercept	.042	.121	5329	.730	-.195	.279
204	Intercept	-.107	.116	5329	.356	-.334	.120
205	Intercept	-.021	.127	5329	.867	-.271	.229

206	Intercept	-.011	.125	5329	.928	-.256	.234
209	Intercept	.022	.114	5329	.849	-.202	.246
217	Intercept	.116	.106	5329	.273	-.092	.324
226	Intercept	-.024	.125	5329	.849	-.270	.222
228	Intercept	-.041	.127	5329	.744	-.289	.207

a. Target: Kessler16 > 1 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq dutiescwcl dutiesm1 faclduti
  FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:35
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5855

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq dutiescwc1
dutiesm1 fac1duti
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:02.03
	Elapsed Time	00:00:02.10

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5339	91.2%
Excluded	516	8.8%
Total	5855	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	29431.948
	Bayesian	29438.528

Information criteria are based on the -2 log likelihood (29429.948) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	1.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	18	583
	% within Observed	3.0%	97.0%
.00	Count	16	4722
	% within Observed	0.3%	99.7%

a. Target: Kessler16 > 1 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	138.195	9	5329	.000
physical_health	33.860	1	5329	.000
kess_t15	595.085	1	5329	.000
choice_freq	4.511	1	5329	.034
bullying_freq	6.711	1	5329	.010
time_pressure_freq	2.027	1	5329	.155
dutiescwc1	5.149	1	5329	.023
dutiesm1	.041	1	5329	.839
fac1duti	.950	1	5329	.330



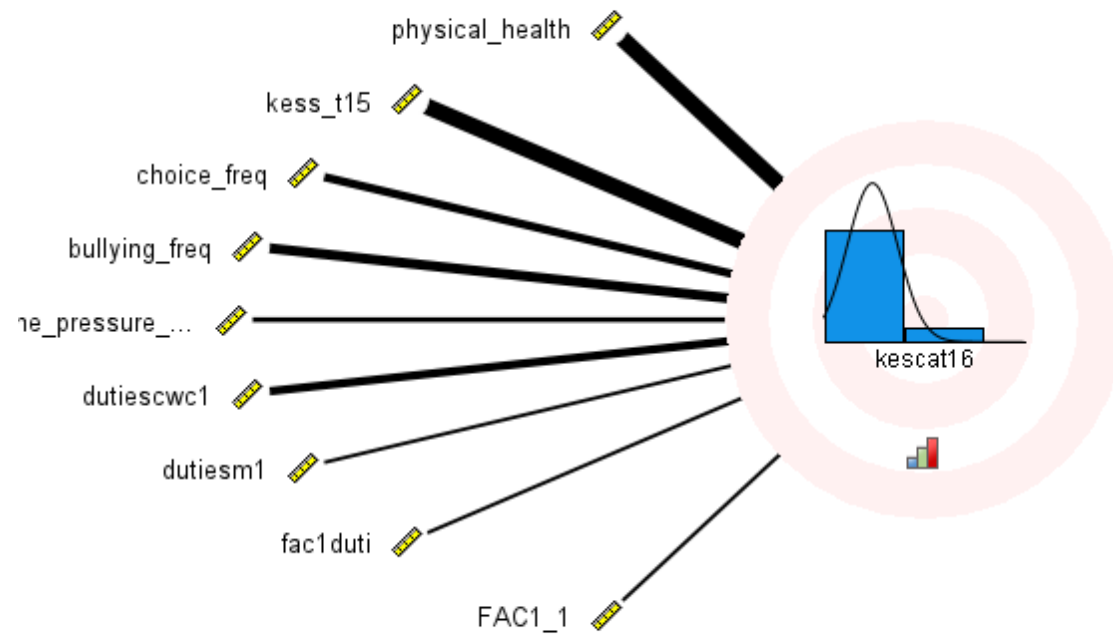
FAC1_1	.162	1	5329	.687
--------	------	---	------	------

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Kessler16} > 1 = 1$

## Fixed Effects



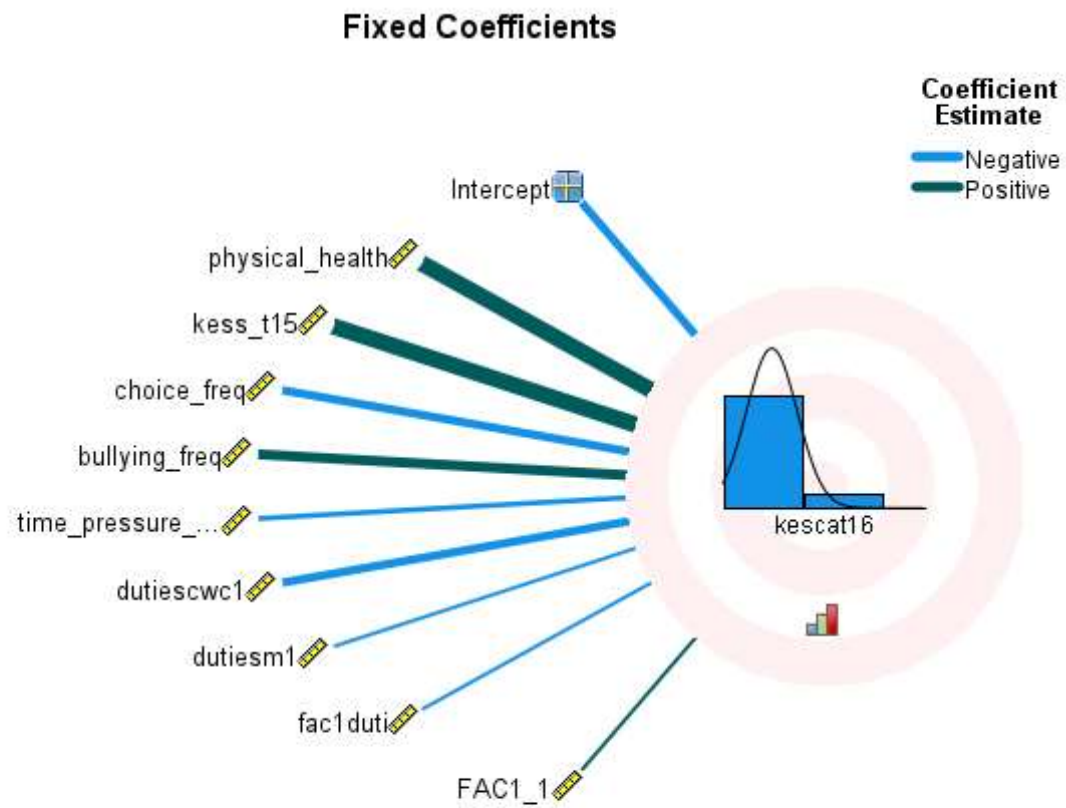
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-3.488	1.5376	-2.268	.023	-6.502	-.473	.031	.002	.623
physical_health	.239	.0411	5.819	.000	.159	.320	1.270	1.172	1.377
kess_t15	3.021	.1238	24.394	.000	2.778	3.263	20.506	16.086	26.140
choice_freq	-.098	.0459	-2.124	.034	-.188	-.008	.907	.829	.993
bullying_freq	.199	.0769	2.591	.010	.048	.350	1.221	1.050	1.419
time_pressure_freq	-.063	.0443	-1.424	.155	-.150	.024	.939	.861	1.024
dutieswc1	-.154	.0679	-2.269	.023	-.287	-.021	.857	.750	.979
dutiesm1	-.078	.3842	-.203	.839	-.831	.675	.925	.435	1.964
fac1duti	-.061	.0626	-.975	.330	-.184	.062	.941	.832	1.064
FAC1_1	.022	.0534	.403	.687	-.083	.126	1.022	.920	1.135

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.021

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.021	.022	.963	.336	.003	.159

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.005	.134	5329	.971	-.259	.269

4	Intercept	.008	.138	5329	.953	-.263	.279
6	Intercept	.002	.137	5329	.986	-.266	.271
22	Intercept	-.009	.144	5329	.948	-.291	.272
24	Intercept	-.028	.127	5329	.824	-.277	.220
30	Intercept	-.004	.140	5329	.977	-.278	.270
36	Intercept	.037	.137	5329	.784	-.231	.306
40	Intercept	.086	.138	5329	.535	-.185	.356
50	Intercept	.006	.140	5329	.966	-.268	.280
61	Intercept	-.031	.138	5329	.821	-.301	.239
65	Intercept	.020	.142	5329	.886	-.258	.298
68	Intercept	-.037	.137	5329	.785	-.306	.231
69	Intercept	.031	.137	5329	.820	-.238	.300
71	Intercept	.036	.141	5329	.798	-.240	.313
72	Intercept	-.007	.140	5329	.960	-.282	.268
74	Intercept	-.037	.141	5329	.795	-.313	.240
75	Intercept	-.043	.139	5329	.756	-.316	.230
80	Intercept	.017	.143	5329	.906	-.263	.297
81	Intercept	-.015	.139	5329	.915	-.287	.257
83	Intercept	.021	.139	5329	.882	-.251	.292
84	Intercept	-.021	.140	5329	.880	-.295	.253
92	Intercept	-.001	.137	5329	.992	-.271	.268
93	Intercept	-.004	.138	5329	.974	-.275	.266
98	Intercept	.065	.134	5329	.625	-.197	.328
100	Intercept	.066	.100	5329	.511	-.130	.261
106	Intercept	.022	.140	5329	.878	-.253	.296
107	Intercept	-.016	.139	5329	.908	-.288	.256

108	Intercept	-.026	.140	5329	.855	-.301	.250
110	Intercept	-.162	.129	5329	.210	-.415	.091
114	Intercept	.022	.139	5329	.875	-.250	.294
116	Intercept	.039	.136	5329	.773	-.227	.306
122	Intercept	.063	.131	5329	.631	-.193	.319
125	Intercept	-.040	.122	5329	.741	-.280	.199
142	Intercept	-.066	.132	5329	.619	-.324	.193
144	Intercept	.011	.135	5329	.933	-.254	.277
145	Intercept	.005	.137	5329	.969	-.263	.274
152	Intercept	.004	.136	5329	.979	-.263	.271
154	Intercept	-.033	.136	5329	.809	-.301	.235
156	Intercept	.037	.135	5329	.782	-.227	.301
162	Intercept	.029	.137	5329	.833	-.240	.298
165	Intercept	.021	.139	5329	.879	-.251	.293
166	Intercept	-.028	.143	5329	.842	-.308	.251
169	Intercept	-.048	.138	5329	.727	-.320	.223
170	Intercept	.055	.139	5329	.692	-.218	.328
173	Intercept	-.048	.139	5329	.731	-.320	.224
174	Intercept	-.019	.138	5329	.891	-.290	.252
178	Intercept	.019	.135	5329	.886	-.245	.284
181	Intercept	.041	.141	5329	.769	-.235	.317
182	Intercept	.018	.140	5329	.900	-.258	.293
192	Intercept	-.038	.140	5329	.788	-.312	.237
202	Intercept	.058	.133	5329	.662	-.203	.319
204	Intercept	-.147	.125	5329	.242	-.392	.099
205	Intercept	-.021	.142	5329	.881	-.299	.257



206	Intercept	-.012	.138	5329	.930	-.283	.259
209	Intercept	.038	.124	5329	.756	-.205	.282
217	Intercept	.131	.113	5329	.248	-.091	.353
226	Intercept	-.021	.139	5329	.879	-.293	.251
228	Intercept	-.052	.140	5329	.710	-.328	.223

a. Target: Kessler16 > 1 = 1

```

FILTER OFF.
USE ALL.
EXECUTE.

```

```

USE ALL.
COMPUTE filter_$=(kescat15 = 1).
VARIABLE LABELS filter_$ 'kescat15 = 0 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

```

```

correlations /variables = kescat16 kescat15 fac1_1.

```

## Correlations

## Notes

Output Created		16-AUG-2021 11:07:37
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		correlations /variables = kescat16 kescat15 fac1_1.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.03

## Correlations

		Kessler16 > 1 = 1	Kessler15 > 1 = 1	REGR factor score 1 for analysis 1
Kessler16 > 1 = 1	Pearson Correlation	1	. <sup>a</sup>	-.092
	Sig. (2-tailed)		.	.002
	N	1113	1113	1113
Kessler15 > 1 = 1	Pearson Correlation	. <sup>a</sup>	. <sup>a</sup>	. <sup>a</sup>
	Sig. (2-tailed)	.	.	.
	N	1113	1113	1113
REGR factor score 1 for analysis 1	Pearson Correlation	-.092	. <sup>a</sup>	1
	Sig. (2-tailed)	.002	.	
	N	1113	1113	1113

a. Cannot be computed because at least one of the variables is constant.

\*Generalized Linear Mixed Models.

GENLINMIXED

```

  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

## Notes

Output Created		16-AUG-2021 11:07:37
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.09
	Elapsed Time	00:00:01.27

### Warnings

glmm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glmm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glmm: The estimated covariance matrix of the random effects (the G matrix) is not positive definite. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

glmm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1100	98.8%
Excluded	13	1.2%
Total	1113	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	4993.082
	Bayesian	4998.074

Information criteria are based on the -2 log likelihood (4991.079) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	1.00
	2	1.00
	2	.00

	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

### Classification

Overall Percent Correct = 67.8%<sup>a</sup>

Observed		Predicted	
		1.00	.00
1.00	Count	638	81
	% within Observed	88.7%	11.3%
.00	Count	273	108
	% within Observed	71.7%	28.3%

a. Target: Kessler16 > 1 = 1

### Fixed Effects<sup>a</sup>

Source	F	df1	df2	Sig.
Corrected Model	21.022	7	1092	.000



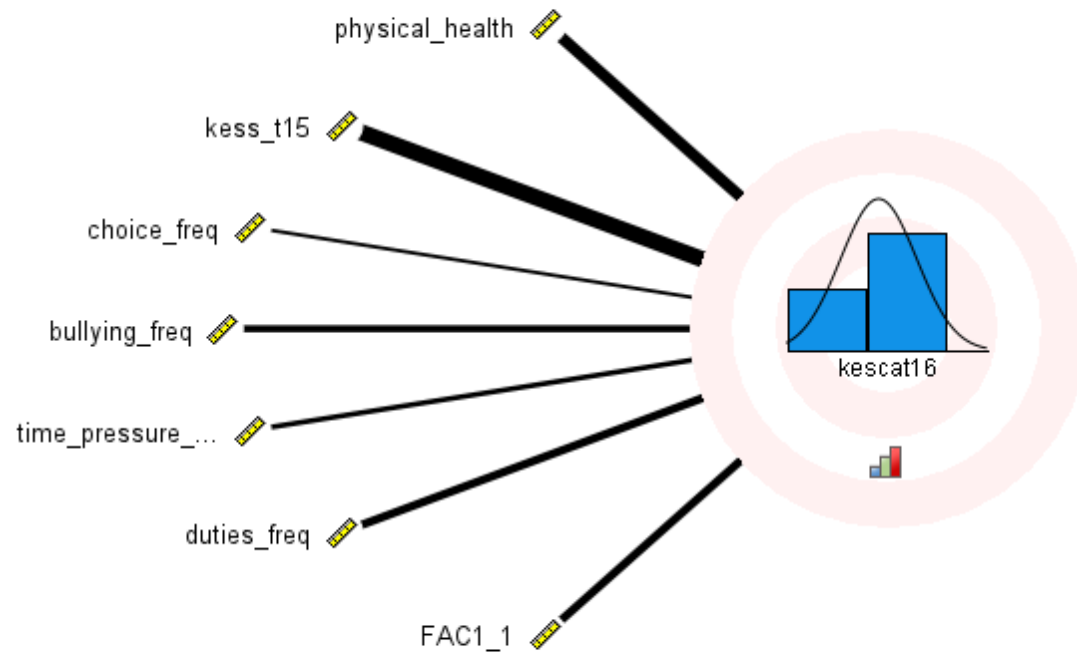
physical_health	9.258	1	1092	.002
kess_t15	71.516	1	1092	.000
choice_freq	.263	1	1092	.608
bullying_freq	2.888	1	1092	.090
time_pressure_freq	1.706	1	1092	.192
duties_freq	6.551	1	1092	.011
FAC1_1	5.071	1	1092	.025

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

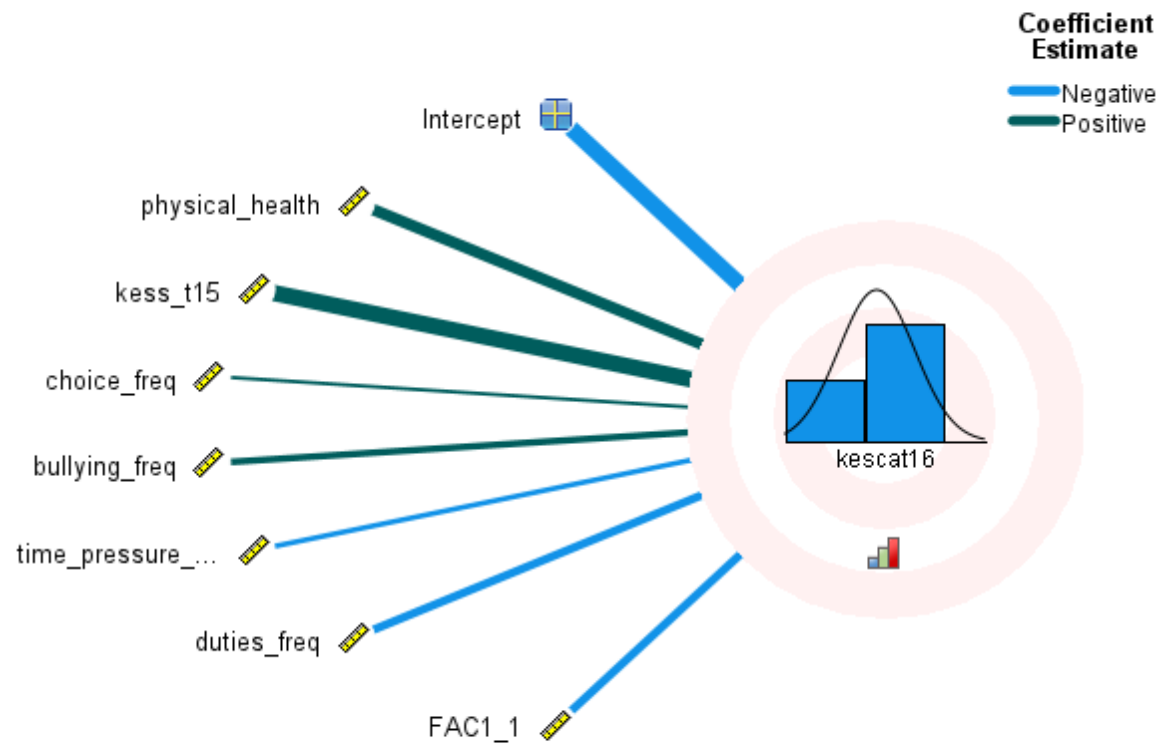
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-1.752	.3791	-4.622	.000	-2.496	-1.009	.173	.082	.365
physical_health	.263	.0866	3.043	.002	.094	.433	1.301	1.098	1.542
kess_t15	1.310	.1549	8.457	.000	1.006	1.614	3.705	2.734	5.021
choice_freq	.027	.0536	.513	.608	-.078	.133	1.028	.925	1.142
bullying_freq	.181	.1063	1.699	.090	-.028	.389	1.198	.972	1.476
time_pressure_freq	-.074	.0565	-1.306	.192	-.185	.037	.929	.831	1.038
duties_freq	-.136	.0533	-2.560	.011	-.241	-.032	.872	.786	.969
FAC1_1	-.167	.0743	-2.252	.025	-.313	-.022	.846	.731	.979

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	8
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.000 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-4.130E-14	5.900E-15	1092	3.212E-12	-5.280E-14	-2.980E-14
4	Intercept	-9.100E-15	2.900E-15	1092	.002	-1.480E-14	-3.500E-15
6	Intercept	-1.000E-14	7.400E-15	1092	.179	-2.460E-14	4.600E-15
22	Intercept	-3.300E-14	1.300E-15	1092	.000	-3.550E-14	-3.050E-14
24	Intercept	-2.700E-14	1.020E-14	1092	.008	-4.710E-14	-6.900E-15
30	Intercept	1.530E-14	3.900E-15	1092	8.728E-5	7.700E-15	2.290E-14
36	Intercept	-2.450E-14	2.700E-15	1092	.000	-2.970E-14	-1.920E-14
40	Intercept	3.040E-14	1.700E-15	1092	.000	2.700E-14	3.380E-14
50	Intercept	2.300E-14	1.600E-15	1092	.000	1.980E-14	2.620E-14
61	Intercept	-1.920E-14	3.600E-15	1092	1.301E-7	-2.630E-14	-1.210E-14
65	Intercept	-3.140E-14	2.900E-15	1092	.000	-3.700E-14	-2.570E-14
68	Intercept	3.680E-14	2.900E-15	1092	.000	3.100E-14	4.260E-14
69	Intercept	-1.000E-16	2.800E-15	1092	.961	-5.700E-15	5.500E-15
71	Intercept	6.800E-15	1.900E-15	1092	.000	3.100E-15	1.050E-14
72	Intercept	-2.920E-14	3.600E-15	1092	7.000E-16	-3.620E-14	-2.220E-14
74	Intercept	-8.700E-15	8.000E-16	1092	.000	-1.020E-14	-7.200E-15
75	Intercept	-3.000E-14	2.800E-15	1092	.000	-3.540E-14	-2.450E-14
80	Intercept	-5.700E-15	2.000E-15	1092	.004	-9.500E-15	-1.800E-15
81	Intercept	1.600E-15	3.100E-15	1092	.603	-4.500E-15	7.700E-15
83	Intercept	3.480E-14	4.000E-15	1092	.000	2.690E-14	4.260E-14
84	Intercept	1.090E-14	1.800E-15	1092	4.534E-9	7.300E-15	1.450E-14
92	Intercept	-5.200E-15	8.700E-15	1092	.555	-2.230E-14	1.200E-14
93	Intercept	3.800E-15	1.900E-15	1092	.051	.000	7.500E-15
98	Intercept	-3.540E-14	5.300E-15	1092	3.641E-11	-4.580E-14	-2.500E-14
100	Intercept	8.900E-15	3.880E-14	1092	.818	-6.720E-14	8.510E-14
106	Intercept	-2.200E-15	9.000E-16	1092	.022	-4.000E-15	-3.000E-16

107	Intercept	2.930E-14	2.000E-15	1092	.000	2.550E-14	3.320E-14
108	Intercept	-6.170E-14	8.000E-15	1092	2.530E-14	-7.740E-14	-4.610E-14
110	Intercept	1.990E-14	5.240E-14	1092	.704	-8.290E-14	1.228E-13
114	Intercept	-4.750E-14	2.900E-15	1092	.000	-5.320E-14	-4.180E-14
116	Intercept	-7.800E-15	2.300E-15	1092	.001	-1.240E-14	-3.200E-15
122	Intercept	2.650E-14	6.200E-15	1092	1.928E-5	1.440E-14	3.860E-14
125	Intercept	4.030E-14	1.780E-14	1092	.024	5.300E-15	7.520E-14
142	Intercept	9.100E-15	6.100E-15	1092	.134	-2.800E-15	2.100E-14
144	Intercept	3.660E-14	4.400E-15	1092	4.000E-16	2.790E-14	4.520E-14
145	Intercept	1.410E-14	2.200E-15	1092	3.472E-10	9.700E-15	1.840E-14
152	Intercept	2.060E-14	4.600E-15	1092	9.817E-6	1.150E-14	2.980E-14
154	Intercept	-8.500E-15	3.900E-15	1092	.029	-1.610E-14	-9.000E-16
156	Intercept	-3.900E-15	5.800E-15	1092	.508	-1.530E-14	7.600E-15
162	Intercept	-1.470E-14	4.600E-15	1092	.001	-2.370E-14	-5.700E-15
165	Intercept	2.900E-15	1.500E-15	1092	.055	-1.000E-16	5.800E-15
166	Intercept	6.000E-15	4.000E-16	1092	.000	5.200E-15	6.800E-15
169	Intercept	-1.850E-14	3.700E-15	1092	5.011E-7	-2.570E-14	-1.130E-14
170	Intercept	-1.150E-14	1.200E-15	1092	.000	-1.380E-14	-9.200E-15
173	Intercept	1.980E-14	2.900E-15	1092	2.049E-11	1.400E-14	2.550E-14
174	Intercept	-2.190E-14	2.600E-15	1092	2.000E-16	-2.700E-14	-1.680E-14
178	Intercept	-4.330E-14	4.900E-15	1092	.000	-5.290E-14	-3.380E-14
181	Intercept	-1.570E-14	2.700E-15	1092	6.899E-9	-2.100E-14	-1.050E-14
182	Intercept	7.200E-15	1.700E-15	1092	3.759E-5	3.800E-15	1.060E-14
192	Intercept	4.100E-15	2.100E-15	1092	.047	1.000E-16	8.200E-15
202	Intercept	1.200E-14	6.000E-15	1092	.047	2.000E-16	2.390E-14
204	Intercept	5.210E-14	1.070E-14	1092	1.421E-6	3.100E-14	7.310E-14



205	Intercept	1.200E-14	7.000E-16	1092	.000	1.060E-14	1.340E-14
206	Intercept	2.410E-14	2.600E-15	1092	.000	1.890E-14	2.920E-14
209	Intercept	-2.620E-14	8.600E-15	1092	.002	-4.300E-14	-9.400E-15
217	Intercept	4.200E-14	1.800E-14	1092	.020	6.600E-15	7.730E-14
226	Intercept	2.070E-14	3.600E-15	1092	1.510E-8	1.360E-14	2.780E-14
228	Intercept	2.180E-14	1.700E-15	1092	.000	1.850E-14	2.510E-14

a. Target: Kessler16 > 1 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
    FAC1_1 facsq USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created

16-AUG-2021 11:07:38

Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1 facsq
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.30
	Elapsed Time	00:00:01.22

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
--	---	---------

Included	1100	98.8%
Excluded	13	1.2%
Total	1113	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	5011.551
	Bayesian	5016.543

Information criteria are based on the -2 log likelihood (5009.548) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	1.00
	2	1.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00

	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

### Classification

Overall Percent Correct = 67.5%<sup>a</sup>

Observed		Predicted	
		1.00	.00
1.00	Count	639	80
	% within Observed	88.9%	11.1%
.00	Count	277	104
	% within Observed	72.7%	27.3%

a. Target: Kessler16 > 1 = 1

### Fixed Effects<sup>a</sup>

Source	F	df1	df2	Sig.
Corrected Model	17.058	8	1091	.000
physical_health	8.977	1	1091	.003
kess_t15	70.521	1	1091	.000
choice_freq	.472	1	1091	.492
bullying_freq	2.621	1	1091	.106
time_pressure_freq	1.963	1	1091	.162

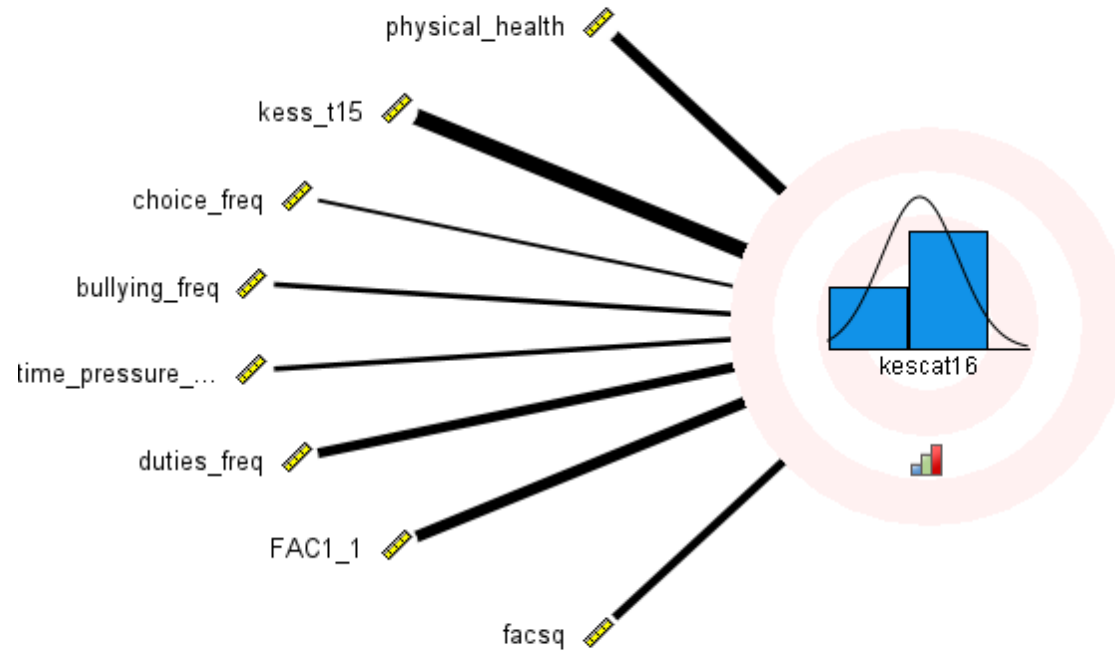
duties_freq	6.842	1	1091	.009
FAC1_1	7.959	1	1091	.005
facsq	6.503	1	1091	.011

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



## Fixed Coefficients<sup>a</sup>



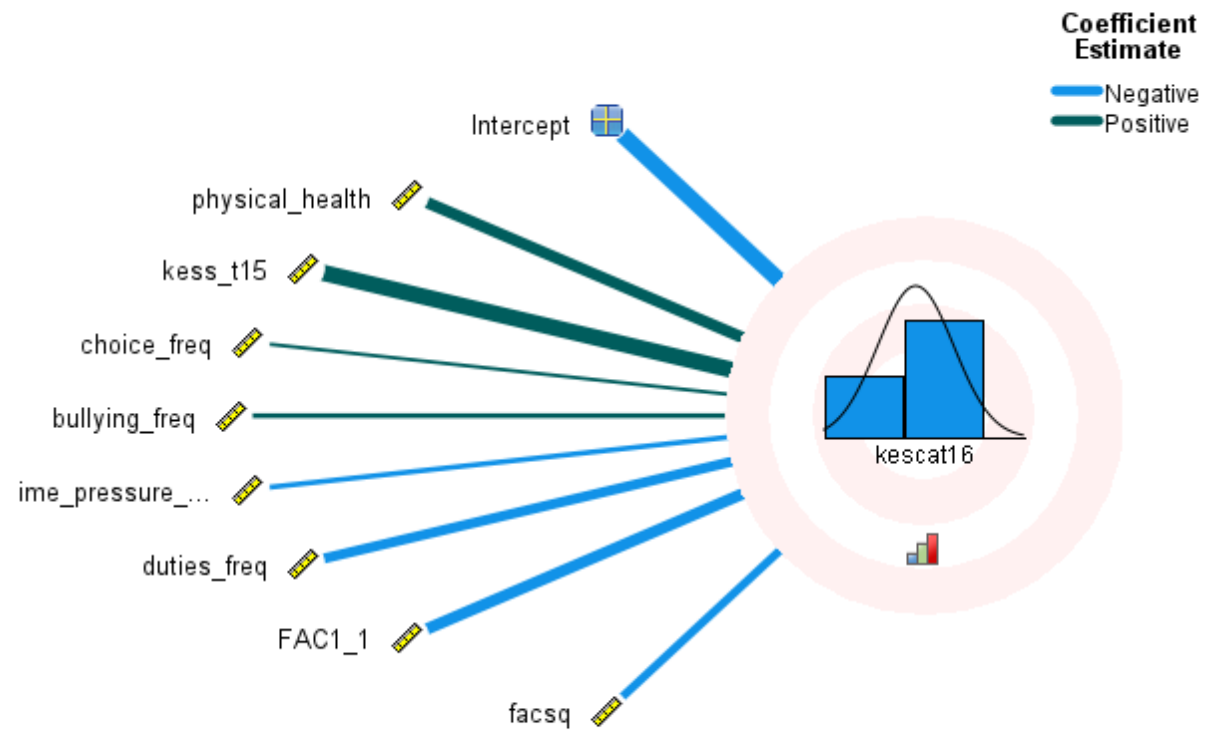
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-1.619	.3812	-4.246	.000	-2.367	-.871	.198	.094	.419
physical_health	.261	.0871	2.996	.003	.090	.432	1.298	1.094	1.540
kess_t15	1.329	.1583	8.398	.000	1.019	1.640	3.778	2.769	5.154
choice_freq	.036	.0531	.687	.492	-.068	.141	1.037	.934	1.151
bullying_freq	.166	.1025	1.619	.106	-.035	.367	1.180	.965	1.443
time_pressure_freq	-.079	.0566	-1.401	.162	-.190	.032	.924	.827	1.032
duties_freq	-.137	.0525	-2.616	.009	-.240	-.034	.872	.786	.966
FAC1_1	-.184	.0651	-2.821	.005	-.311	-.056	.832	.732	.946
facsq	-.153	.0601	-2.550	.011	-.271	-.035	.858	.762	.965

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	9
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	6.553E-10 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-1.482E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
4	Intercept	8.679E-12	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
6	Intercept	7.065E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
22	Intercept	-1.368E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
24	Intercept	-1.159E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
30	Intercept	9.041E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
36	Intercept	-1.215E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
40	Intercept	1.207E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
50	Intercept	9.149E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
61	Intercept	-7.401E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
65	Intercept	-8.590E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
68	Intercept	1.417E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
69	Intercept	-2.348E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
71	Intercept	4.341E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
72	Intercept	-8.376E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
74	Intercept	-3.429E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
75	Intercept	-1.110E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
80	Intercept	-3.078E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
81	Intercept	-9.483E-11	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
83	Intercept	1.672E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
84	Intercept	3.651E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
92	Intercept	3.160E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
93	Intercept	3.736E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
98	Intercept	-1.196E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
100	Intercept	-2.417E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
106	Intercept	-1.427E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5

107	Intercept	1.131E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
108	Intercept	-1.534E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
110	Intercept	1.161E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
114	Intercept	-2.182E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
116	Intercept	-4.617E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
122	Intercept	7.133E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
125	Intercept	2.104E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
142	Intercept	3.641E-12	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
144	Intercept	1.900E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
145	Intercept	4.146E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
152	Intercept	1.327E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
154	Intercept	-4.037E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
156	Intercept	1.914E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
162	Intercept	-3.989E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
165	Intercept	2.353E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
166	Intercept	2.281E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
169	Intercept	-1.299E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
170	Intercept	-5.306E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
173	Intercept	7.604E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
174	Intercept	-1.147E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
178	Intercept	-2.267E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
181	Intercept	-7.634E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
182	Intercept	2.683E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
192	Intercept	3.495E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
202	Intercept	3.995E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
204	Intercept	1.543E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5

205	Intercept	4.711E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
206	Intercept	8.376E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
209	Intercept	-1.866E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
217	Intercept	1.227E-9	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
226	Intercept	8.248E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5
228	Intercept	7.797E-10	2.560E-5	1091	1.000	-5.023E-5	5.023E-5

a. Target: Kessler16 > 1 = 1

#### AGGREGATE

```

/OUTFILE=* MODE=ADDVARIABLES OVERWRITE = YES
/BREAK=companyId15
/choicem2=MEAN(choice_freq)
/bullym2=MEAN(bullying_freq)
/timem2=MEAN(time_pressure_freq)
/dutiesm2=MEAN(duties_freq).

```

```

COMPUTE choicecwc2 = choice_freq - choicem2.
COMPUTE bullycwc2 = bullying_freq - bullym2.
COMPUTE timecwc2 = time_pressure_freq - timem2.
COMPUTE dutiescwc2 = duties_freq - dutiesm2.

```

```

COMPUTE fac2choi = fac1_1 * choicecwc2.
COMPUTE fac2bull = fac1_1 * bullycwc2.
COMPUTE fac2time = fac1_1 * timecwc2.
COMPUTE fac2duti = fac1_1 * dutiescwc2.

```

#### GENLINMIXED

```

/DATA_STRUCTURE SUBJECTS=companyId15
/FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/FIXED EFFECTS=physical_health kess_t15 choicecwc2 choicem2 fac2choi
bullying_freq time_pressure_freq duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)

```

```

SCORING=0 SINGULAR=0.000000000001
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created		16-AUG-2021 11:07:40
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113



## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choicecwc2 choicem2
fac2choi
  bullying_freq time_pressure_freq
duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
```

		MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.30
	Elapsed Time	00:00:01.15

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The estimated covariance matrix of the random effects (the G matrix) is not positive definite. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1100	98.8%
Excluded	13	1.2%
Total	1113	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	5003.905
	Bayesian	5008.895

Information criteria are based on the -2 log likelihood (5001.901) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

Subjects

Target

	company_code	Kessler16 > 1 = 1
Data for First Subject	2	1.00
	2	1.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 67.6%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	631	88
	% within Observed	87.8%	12.2%
.00	Count	268	113
	% within Observed	70.3%	29.7%

a. Target: Kessler16 > 1 = 1

# Fixed Effects<sup>a</sup>

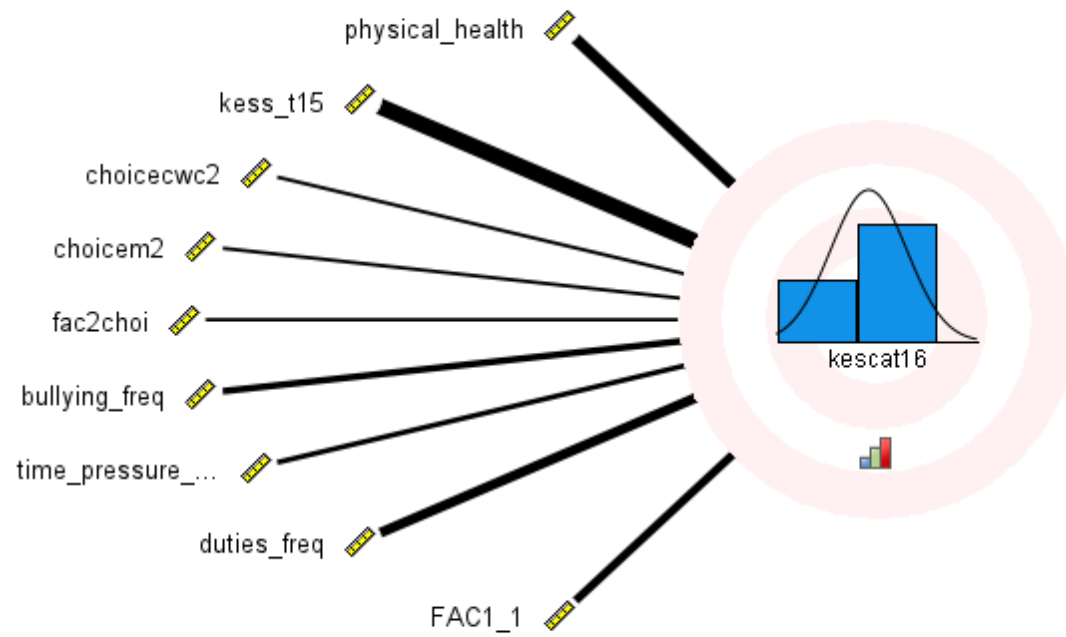
Source	F	df1	df2	Sig.
Corrected Model	16.362	9	1090	.000
physical_health	8.782	1	1090	.003
kess_t15	70.779	1	1090	.000
choicecwc2	.807	1	1090	.369
choicem2	1.534	1	1090	.216
fac2choi	.384	1	1090	.536
bullying_freq	2.836	1	1090	.092
time_pressure_freq	2.067	1	1090	.151
duties_freq	6.981	1	1090	.008
FAC1_1	3.905	1	1090	.048

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



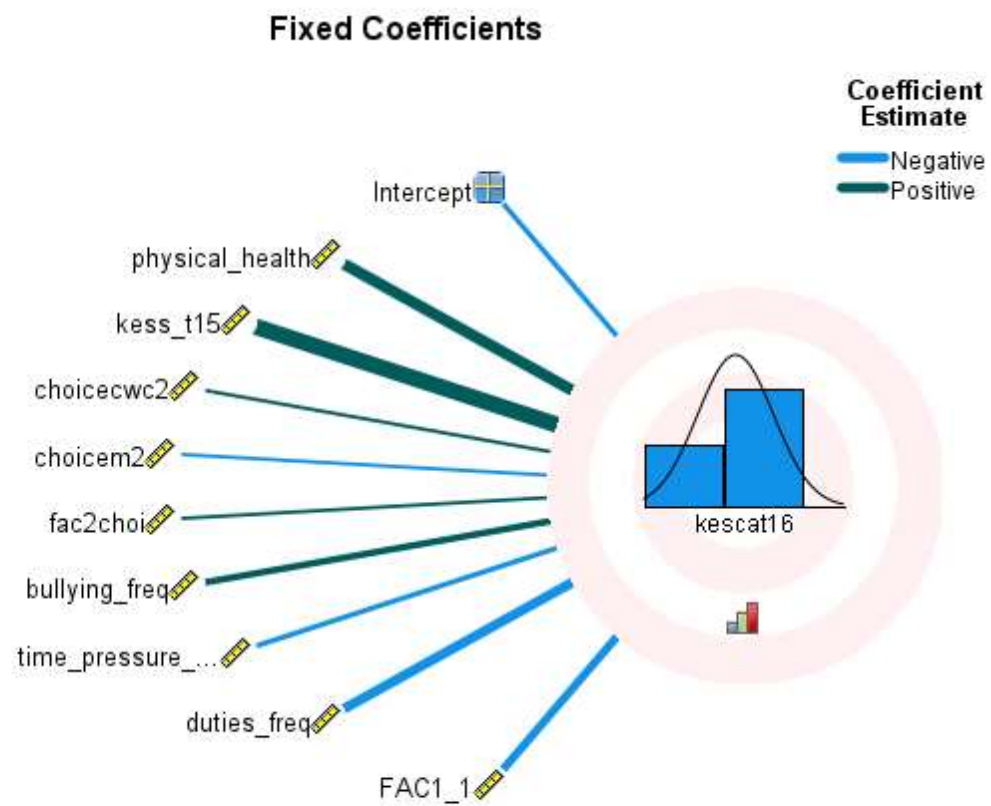
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-.903	.6530	-1.383	.167	-2.184	.378	.405	.113	1.460
physical_health	.256	.0864	2.963	.003	.086	.425	1.292	1.090	1.530
kess_t15	1.307	.1554	8.413	.000	1.002	1.612	3.696	2.725	5.014
choicecwc2	.051	.0563	.898	.369	-.060	.161	1.052	.942	1.175
choicem2	-.252	.2036	-1.238	.216	-.652	.147	.777	.521	1.159
fac2choi	.036	.0586	.619	.536	-.079	.151	1.037	.924	1.163
bullying_freq	.175	.1039	1.684	.092	-.029	.379	1.191	.972	1.460
time_pressure_freq	-.083	.0580	-1.438	.151	-.197	.030	.920	.821	1.031
duties_freq	-.137	.0519	-2.642	.008	-.239	-.035	.872	.787	.965
FAC1_1	-.150	.0757	-1.976	.048	-.298	-.001	.861	.742	.999

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**



### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.000 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-1.642E-13	2.390E-14	1090	1.107E-11	-2.111E-13	-1.173E-13
4	Intercept	-2.620E-14	1.360E-14	1090	.054	-5.280E-14	4.000E-16
6	Intercept	-4.190E-14	2.980E-14	1090	.160	-1.004E-13	1.660E-14
22	Intercept	-1.400E-13	5.600E-15	1090	.000	-1.510E-13	-1.290E-13
24	Intercept	-8.140E-14	5.240E-14	1090	.121	-1.843E-13	2.140E-14
30	Intercept	5.540E-14	1.650E-14	1090	.001	2.300E-14	8.780E-14
36	Intercept	-6.730E-14	2.780E-14	1090	.016	-1.219E-13	-1.270E-14
40	Intercept	1.255E-13	6.900E-15	1090	.000	1.121E-13	1.390E-13
50	Intercept	8.970E-14	7.300E-15	1090	.000	7.540E-14	1.041E-13
61	Intercept	-7.190E-14	1.560E-14	1090	4.376E-6	-1.025E-13	-4.140E-14
65	Intercept	-1.274E-13	1.140E-14	1090	.000	-1.497E-13	-1.051E-13
68	Intercept	1.809E-13	2.570E-14	1090	3.300E-12	1.305E-13	2.313E-13
69	Intercept	2.370E-14	2.330E-14	1090	.310	-2.200E-14	6.940E-14
71	Intercept	2.570E-14	7.300E-15	1090	.000	1.140E-14	4.000E-14
72	Intercept	-1.088E-13	1.800E-14	1090	1.937E-9	-1.441E-13	-7.360E-14
74	Intercept	-3.460E-14	3.300E-15	1090	.000	-4.100E-14	-2.820E-14
75	Intercept	-1.141E-13	1.460E-14	1090	1.110E-14	-1.426E-13	-8.550E-14
80	Intercept	-1.450E-14	1.080E-14	1090	.179	-3.570E-14	6.700E-15
81	Intercept	3.180E-14	2.370E-14	1090	.180	-1.470E-14	7.820E-14
83	Intercept	1.592E-13	2.270E-14	1090	3.885E-12	1.147E-13	2.037E-13
84	Intercept	5.160E-14	9.500E-15	1090	6.516E-8	3.300E-14	7.030E-14
92	Intercept	-1.350E-14	3.640E-14	1090	.711	-8.480E-14	5.790E-14
93	Intercept	1.230E-14	7.300E-15	1090	.094	-2.100E-15	2.660E-14
98	Intercept	-1.274E-13	2.750E-14	1090	4.099E-6	-1.814E-13	-7.340E-14
100	Intercept	-9.120E-14	1.474E-13	1090	.536	-3.804E-13	1.979E-13
106	Intercept	-2.700E-15	6.700E-15	1090	.684	-1.580E-14	1.040E-14

107	Intercept	1.440E-13	2.050E-14	1090	4.139E-12	1.037E-13	1.842E-13
108	Intercept	-2.554E-13	3.270E-14	1090	1.240E-14	-3.195E-13	-1.913E-13
110	Intercept	9.590E-14	2.142E-13	1090	.655	-3.244E-13	5.162E-13
114	Intercept	-1.599E-13	3.170E-14	1090	5.256E-7	-2.221E-13	-9.780E-14
116	Intercept	-2.700E-14	1.080E-14	1090	.013	-4.820E-14	-5.800E-15
122	Intercept	5.620E-14	3.640E-14	1090	.122	-1.520E-14	1.276E-13
125	Intercept	1.643E-13	7.230E-14	1090	.023	2.250E-14	3.061E-13
142	Intercept	3.570E-14	2.380E-14	1090	.134	-1.100E-14	8.240E-14
144	Intercept	1.565E-13	1.850E-14	1090	.000	1.202E-13	1.929E-13
145	Intercept	6.470E-14	1.130E-14	1090	1.486E-8	4.240E-14	8.690E-14
152	Intercept	8.380E-14	1.850E-14	1090	6.297E-6	4.760E-14	1.201E-13
154	Intercept	-1.990E-14	2.000E-14	1090	.320	-5.920E-14	1.940E-14
156	Intercept	-4.090E-14	2.520E-14	1090	.105	-9.040E-14	8.500E-15
162	Intercept	-3.450E-14	2.690E-14	1090	.200	-8.740E-14	1.830E-14
165	Intercept	1.680E-14	7.100E-15	1090	.018	2.900E-15	3.070E-14
166	Intercept	2.980E-14	4.200E-15	1090	3.007E-12	2.150E-14	3.800E-14
169	Intercept	-7.080E-14	1.610E-14	1090	1.243E-5	-1.024E-13	-3.910E-14
170	Intercept	-3.720E-14	9.800E-15	1090	.000	-5.650E-14	-1.790E-14
173	Intercept	8.370E-14	1.200E-14	1090	4.832E-12	6.020E-14	1.073E-13
174	Intercept	-7.820E-14	1.470E-14	1090	1.134E-7	-1.070E-13	-4.950E-14
178	Intercept	-1.590E-13	2.630E-14	1090	1.964E-9	-2.105E-13	-1.074E-13
181	Intercept	-8.030E-14	1.430E-14	1090	2.794E-8	-1.084E-13	-5.210E-14
182	Intercept	4.040E-14	1.130E-14	1090	.000	1.830E-14	6.260E-14
192	Intercept	2.090E-14	9.300E-15	1090	.025	2.600E-15	3.920E-14
202	Intercept	2.750E-14	2.790E-14	1090	.325	-2.730E-14	8.230E-14
204	Intercept	1.380E-13	5.770E-14	1090	.017	2.480E-14	2.513E-13

205	Intercept	4.240E-14	5.100E-15	1090	2.000E-16	3.240E-14	5.240E-14
206	Intercept	8.930E-14	1.110E-14	1090	2.200E-15	6.750E-14	1.111E-13
209	Intercept	-1.587E-13	4.350E-14	1090	.000	-2.439E-13	-7.340E-14
217	Intercept	1.190E-13	7.550E-14	1090	.115	-2.910E-14	2.671E-13
226	Intercept	9.230E-14	1.660E-14	1090	3.680E-8	5.960E-14	1.249E-13
228	Intercept	9.180E-14	7.300E-15	1090	.000	7.740E-14	1.061E-13

a. Target: Kessler16 > 1 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullycwc2 bullym2 fac2bull
time_pressure_freq duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM_USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created

16-AUG-2021 11:07:41

Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullycwc2
bullym2 fac2bull
  time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.58
	Elapsed Time	00:00:01.42

### Warnings

glmm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glmm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glmm: The estimated covariance matrix of the random effects (the G matrix) is not positive definite. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

glmm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.



### Case Processing Summary

	N	Percent
Included	1100	98.8%
Excluded	13	1.2%
Total	1113	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	5013.818
	Bayesian	5018.808

Information criteria are based on the -2 log likelihood (5011.814) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	1.00
	2	1.00
	2	.00

	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 67.6%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	635	84
	% within Observed	88.3%	11.7%
.00	Count	272	109
	% within Observed	71.4%	28.6%

a. Target: Kessler16 > 1 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	15.015	9	1090	.000

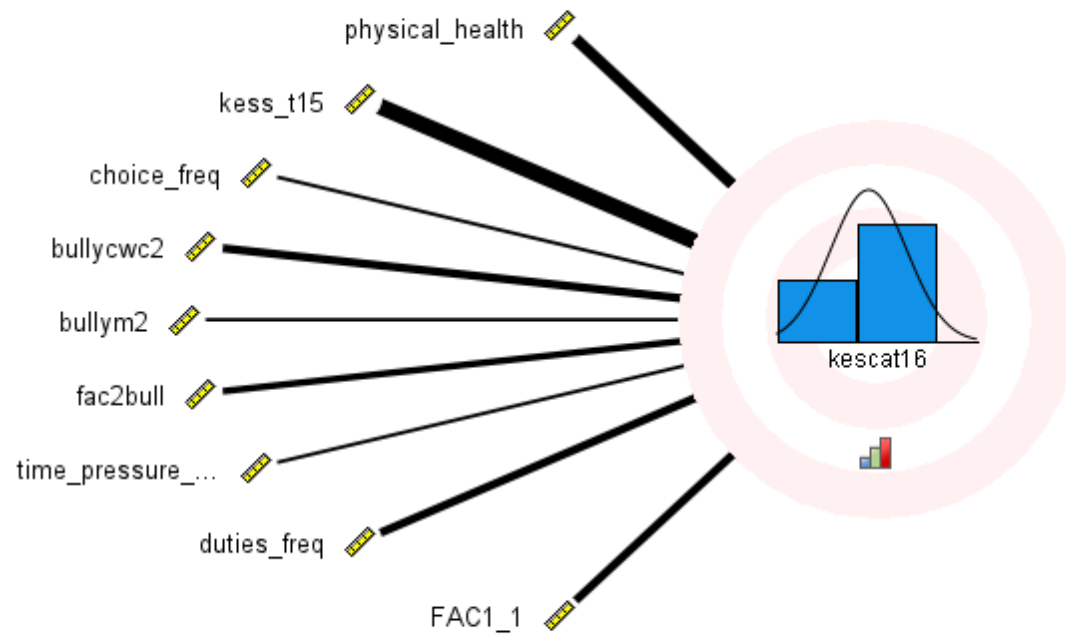
physical_health	9.094	1	1090	.003
kess_t15	73.191	1	1090	.000
choice_freq	.336	1	1090	.562
bullycwc2	5.416	1	1090	.020
bullym2	.539	1	1090	.463
fac2bull	3.612	1	1090	.058
time_pressure_freq	1.643	1	1090	.200
duties_freq	6.163	1	1090	.013
FAC1_1	5.494	1	1090	.019

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



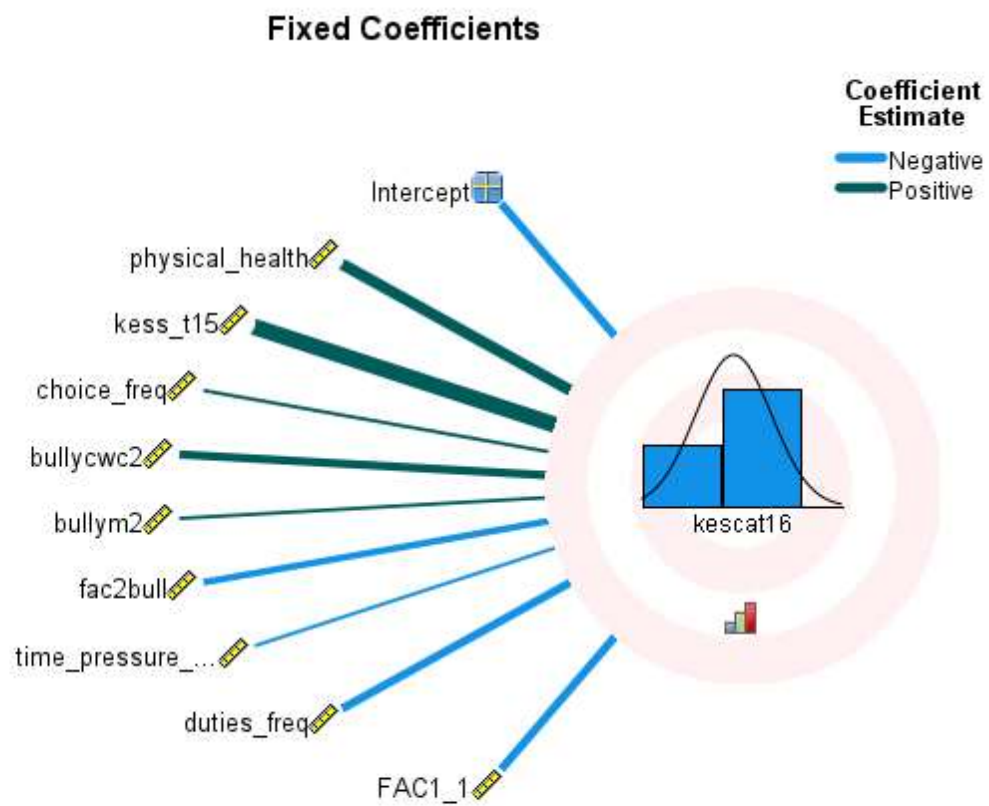
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-2.012	.7817	-2.573	.010	-3.546	-.478	.134	.029	.620
physical_health	.257	.0852	3.016	.003	.090	.424	1.293	1.094	1.528
kess_t15	1.307	.1528	8.555	.000	1.007	1.607	3.694	2.738	4.986
choice_freq	.031	.0533	.580	.562	-.074	.135	1.031	.929	1.145
bullycwc2	.203	.0874	2.327	.020	.032	.375	1.225	1.032	1.455
bullym2	.360	.4896	.734	.463	-.601	1.320	1.433	.548	3.745
fac2bull	-.192	.1009	-1.900	.058	-.390	.006	.825	.677	1.006
time_pressure_freq	-.073	.0570	-1.282	.200	-.185	.039	.930	.831	1.040
duties_freq	-.132	.0531	-2.483	.013	-.236	-.028	.876	.790	.973
FAC1_1	-.184	.0785	-2.344	.019	-.338	-.030	.832	.713	.970

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyld15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.000 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound



2	Intercept	-1.737E-12	3.440E-13	1090	5.195E-7	-2.412E-12	-1.062E-12
4	Intercept	-3.412E-13	2.087E-13	1090	.102	-7.508E-13	6.830E-14
6	Intercept	-3.770E-13	3.175E-13	1090	.235	-1.000E-12	2.460E-13
22	Intercept	-1.494E-12	2.844E-13	1090	1.813E-7	-2.052E-12	-9.355E-13
24	Intercept	-1.024E-12	6.798E-13	1090	.132	-2.358E-12	3.095E-13
30	Intercept	7.716E-13	3.016E-13	1090	.011	1.799E-13	1.363E-12
36	Intercept	-1.041E-12	1.825E-13	1090	1.487E-8	-1.400E-12	-6.833E-13
40	Intercept	1.299E-12	1.366E-13	1090	.000	1.031E-12	1.567E-12
50	Intercept	1.043E-12	1.004E-13	1090	.000	8.461E-13	1.240E-12
61	Intercept	-8.415E-13	1.892E-13	1090	9.608E-6	-1.213E-12	-4.702E-13
65	Intercept	-1.372E-12	1.222E-13	1090	.000	-1.612E-12	-1.132E-12
68	Intercept	1.676E-12	1.707E-13	1090	.000	1.340E-12	2.010E-12
69	Intercept	1.490E-14	1.432E-13	1090	.917	-2.661E-13	2.959E-13
71	Intercept	3.284E-13	1.252E-13	1090	.009	8.270E-14	5.742E-13
72	Intercept	-1.263E-12	1.953E-13	1090	1.491E-10	-1.646E-12	-8.800E-13
74	Intercept	-3.781E-13	7.980E-14	1090	2.415E-6	-5.347E-13	-2.216E-13
75	Intercept	-1.324E-12	1.353E-13	1090	.000	-1.589E-12	-1.058E-12
80	Intercept	-3.010E-13	8.840E-14	1090	.001	-4.745E-13	-1.276E-13
81	Intercept	1.396E-13	2.535E-13	1090	.582	-3.579E-13	6.370E-13
83	Intercept	1.586E-12	2.046E-13	1090	2.040E-14	1.185E-12	1.988E-12
84	Intercept	5.109E-13	1.214E-13	1090	2.792E-5	2.727E-13	7.492E-13
92	Intercept	-2.102E-13	3.937E-13	1090	.594	-9.826E-13	5.623E-13
93	Intercept	1.928E-13	1.170E-13	1090	.099	-3.660E-14	4.223E-13
98	Intercept	-1.508E-12	2.265E-13	1090	4.421E-11	-1.952E-12	-1.064E-12
100	Intercept	1.402E-13	2.137E-12	1090	.948	-4.054E-12	4.334E-12
106	Intercept	-9.160E-14	4.460E-14	1090	.040	-1.791E-13	-4.100E-15

107	Intercept	1.285E-12	1.005E-13	1090	.000	1.088E-12	1.483E-12
108	Intercept	-2.581E-12	5.349E-13	1090	1.596E-6	-3.631E-12	-1.532E-12
110	Intercept	4.707E-13	2.230E-12	1090	.833	-3.905E-12	4.847E-12
114	Intercept	-2.104E-12	1.405E-13	1090	.000	-2.379E-12	-1.828E-12
116	Intercept	-3.619E-13	1.032E-13	1090	.000	-5.644E-13	-1.594E-13
122	Intercept	1.112E-12	3.064E-13	1090	.000	5.110E-13	1.714E-12
125	Intercept	1.693E-12	7.514E-13	1090	.024	2.191E-13	3.168E-12
142	Intercept	5.094E-13	4.414E-13	1090	.249	-3.567E-13	1.375E-12
144	Intercept	1.674E-12	2.374E-13	1090	3.199E-12	1.208E-12	2.139E-12
145	Intercept	6.337E-13	9.670E-14	1090	8.773E-11	4.439E-13	8.236E-13
152	Intercept	1.020E-12	2.199E-13	1090	3.949E-6	5.885E-13	1.452E-12
154	Intercept	-3.154E-13	2.835E-13	1090	.266	-8.718E-13	2.409E-13
156	Intercept	-1.247E-13	2.615E-13	1090	.634	-6.379E-13	3.885E-13
162	Intercept	-7.142E-13	2.167E-13	1090	.001	-1.139E-12	-2.891E-13
165	Intercept	1.275E-13	7.140E-14	1090	.074	-1.260E-14	2.676E-13
166	Intercept	2.779E-13	3.760E-14	1090	2.887E-13	2.042E-13	3.517E-13
169	Intercept	-8.336E-13	1.851E-13	1090	7.359E-6	-1.197E-12	-4.705E-13
170	Intercept	-5.362E-13	6.300E-14	1090	.000	-6.598E-13	-4.127E-13
173	Intercept	8.630E-13	1.226E-13	1090	3.404E-12	6.225E-13	1.104E-12
174	Intercept	-1.021E-12	1.494E-13	1090	1.366E-11	-1.314E-12	-7.279E-13
178	Intercept	-1.947E-12	2.111E-13	1090	.000	-2.361E-12	-1.533E-12
181	Intercept	-7.843E-13	2.763E-13	1090	.005	-1.327E-12	-2.421E-13
182	Intercept	3.413E-13	1.088E-13	1090	.002	1.278E-13	5.548E-13
192	Intercept	1.660E-13	1.003E-13	1090	.098	-3.070E-14	3.627E-13
202	Intercept	6.482E-13	4.137E-13	1090	.117	-1.636E-13	1.460E-12
204	Intercept	1.868E-12	1.235E-12	1090	.131	-5.553E-13	4.292E-12

205	Intercept	5.002E-13	8.850E-14	1090	2.018E-8	3.265E-13	6.738E-13
206	Intercept	1.028E-12	1.868E-13	1090	4.669E-8	6.612E-13	1.394E-12
209	Intercept	-1.180E-12	3.725E-13	1090	.002	-1.911E-12	-4.496E-13
217	Intercept	2.097E-12	1.081E-12	1090	.053	-2.510E-14	4.219E-12
226	Intercept	8.882E-13	1.804E-13	1090	9.872E-7	5.341E-13	1.242E-12
228	Intercept	9.015E-13	1.774E-13	1090	4.374E-7	5.535E-13	1.249E-12

a. Target: Kessler16 > 1 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq timecwc2 timem2 fac2time
duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM_USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created

16-AUG-2021 11:07:42

Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
timecwc2 timem2 fac2time
duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.33
	Elapsed Time	00:00:01.38

### Warnings

glmm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glmm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glmm: The estimated covariance matrix of the random effects (the G matrix) is not positive definite. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

glmm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1100	98.8%
Excluded	13	1.2%
Total	1113	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	5003.543
	Bayesian	5008.533

Information criteria are based on the -2 log likelihood (5001.539) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	1.00
	2	1.00
	2	.00

	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 68.5%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	641	78
	% within Observed	89.2%	10.8%
.00	Count	268	113
	% within Observed	70.3%	29.7%

a. Target: Kessler16 > 1 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	16.549	9	1090	.000



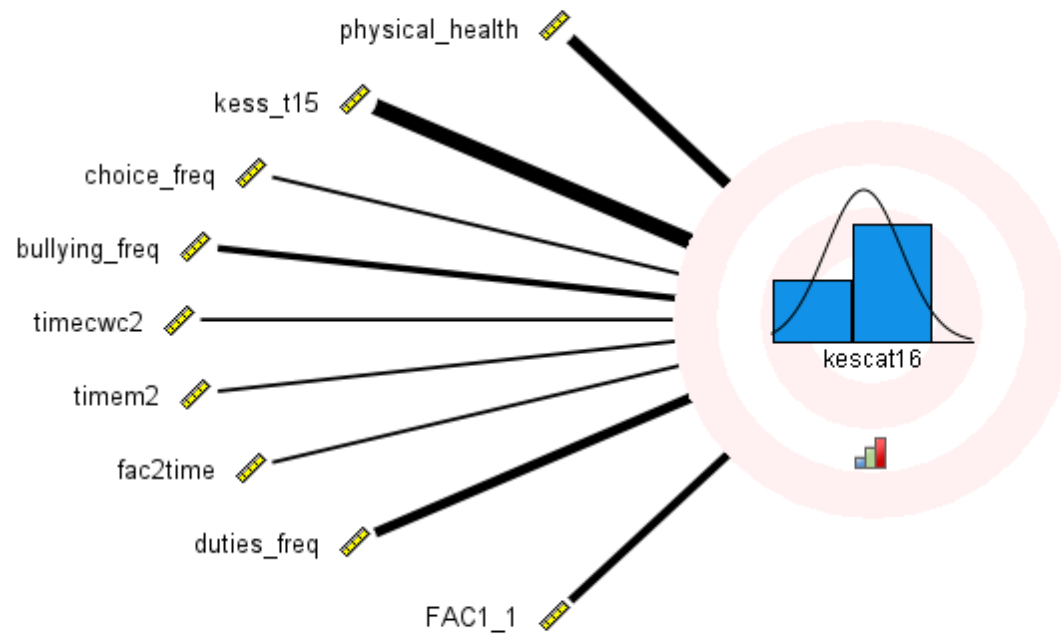
physical_health	9.784	1	1090	.002
kess_t15	71.460	1	1090	.000
choice_freq	.146	1	1090	.702
bullying_freq	2.891	1	1090	.089
timecwc2	1.080	1	1090	.299
timem2	1.247	1	1090	.264
fac2time	.013	1	1090	.910
duties_freq	6.774	1	1090	.009
FAC1_1	4.319	1	1090	.038

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



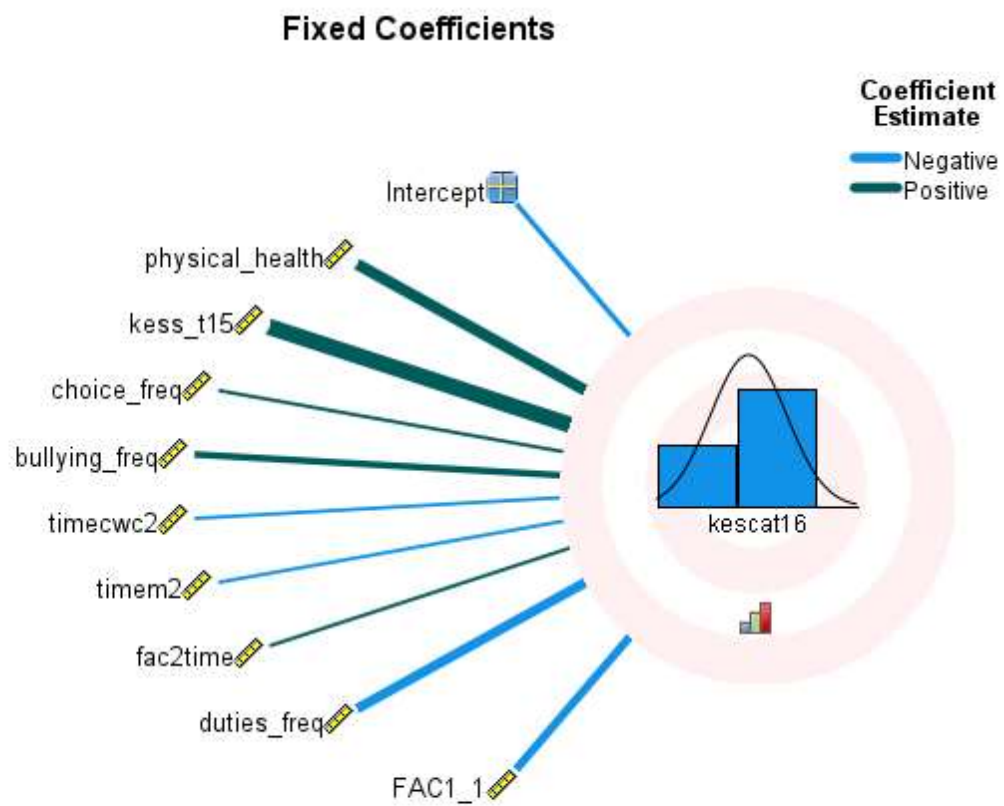
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-1.188	.7612	-1.561	.119	-2.682	.306	.305	.068	1.357
physical_health	.272	.0870	3.128	.002	.101	.443	1.313	1.107	1.557
kess_t15	1.303	.1541	8.453	.000	1.000	1.605	3.679	2.719	4.978
choice_freq	.021	.0547	.382	.702	-.086	.128	1.021	.917	1.137
bullying_freq	.183	.1075	1.700	.089	-.028	.394	1.200	.972	1.482
timecwc2	-.058	.0557	-1.039	.299	-.167	.051	.944	.846	1.053
timem2	-.261	.2335	-1.117	.264	-.719	.197	.770	.487	1.218
fac2time	.007	.0632	.113	.910	-.117	.131	1.007	.890	1.140
duties_freq	-.139	.0536	-2.603	.009	-.245	-.034	.870	.783	.966
FAC1_1	-.153	.0738	-2.078	.038	-.298	-.009	.858	.742	.991

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.000 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-1.899E-13	3.440E-14	1090	4.343E-8	-2.575E-13	-1.224E-13
4	Intercept	-6.230E-14	2.480E-14	1090	.012	-1.110E-13	-1.370E-14
6	Intercept	-4.180E-14	3.690E-14	1090	.257	-1.141E-13	3.060E-14
22	Intercept	-1.516E-13	1.560E-14	1090	.000	-1.821E-13	-1.210E-13
24	Intercept	-1.210E-13	5.210E-14	1090	.020	-2.231E-13	-1.880E-14
30	Intercept	5.820E-14	2.640E-14	1090	.028	6.400E-15	1.099E-13
36	Intercept	-1.340E-13	2.080E-14	1090	1.638E-10	-1.747E-13	-9.330E-14
40	Intercept	1.433E-13	1.090E-14	1090	.000	1.219E-13	1.648E-13
50	Intercept	9.950E-14	1.690E-14	1090	5.283E-9	6.630E-14	1.327E-13
61	Intercept	-9.770E-14	1.760E-14	1090	3.443E-8	-1.322E-13	-6.320E-14
65	Intercept	-1.575E-13	1.360E-14	1090	.000	-1.841E-13	-1.308E-13
68	Intercept	1.702E-13	1.800E-14	1090	.000	1.349E-13	2.055E-13
69	Intercept	-2.040E-14	2.690E-14	1090	.448	-7.310E-14	3.230E-14
71	Intercept	4.070E-14	1.250E-14	1090	.001	1.610E-14	6.530E-14
72	Intercept	-1.384E-13	1.810E-14	1090	4.840E-14	-1.739E-13	-1.028E-13
74	Intercept	-4.380E-14	4.000E-15	1090	.000	-5.170E-14	-3.600E-14
75	Intercept	-1.618E-13	2.320E-14	1090	5.604E-12	-2.073E-13	-1.162E-13
80	Intercept	-2.890E-14	9.800E-15	1090	.003	-4.810E-14	-9.700E-15
81	Intercept	-9.700E-15	2.720E-14	1090	.721	-6.310E-14	4.370E-14
83	Intercept	1.553E-13	2.850E-14	1090	5.952E-8	9.950E-14	2.112E-13
84	Intercept	4.810E-14	1.110E-14	1090	1.466E-5	2.640E-14	6.980E-14
92	Intercept	-5.490E-14	5.850E-14	1090	.349	-1.696E-13	5.990E-14
93	Intercept	1.790E-14	9.500E-15	1090	.061	-8.000E-16	3.660E-14
98	Intercept	-1.765E-13	2.730E-14	1090	1.405E-10	-2.300E-13	-1.231E-13
100	Intercept	6.990E-14	2.011E-13	1090	.728	-3.246E-13	4.644E-13
106	Intercept	-1.000E-14	4.800E-15	1090	.038	-1.940E-14	-5.000E-16

107	Intercept	1.353E-13	1.420E-14	1090	.000	1.074E-13	1.632E-13
108	Intercept	-2.867E-13	4.590E-14	1090	6.181E-10	-3.769E-13	-1.966E-13
110	Intercept	6.820E-14	2.529E-13	1090	.788	-4.281E-13	5.645E-13
114	Intercept	-2.378E-13	1.550E-14	1090	.000	-2.683E-13	-2.074E-13
116	Intercept	-2.250E-14	2.290E-14	1090	.327	-6.750E-14	2.250E-14
122	Intercept	1.742E-13	6.490E-14	1090	.007	4.680E-14	3.015E-13
125	Intercept	2.330E-13	1.039E-13	1090	.025	2.920E-14	4.368E-13
142	Intercept	8.110E-14	5.390E-14	1090	.133	-2.470E-14	1.868E-13
144	Intercept	1.729E-13	2.210E-14	1090	1.220E-14	1.295E-13	2.163E-13
145	Intercept	7.780E-14	1.570E-14	1090	8.318E-7	4.700E-14	1.085E-13
152	Intercept	1.014E-13	2.340E-14	1090	1.620E-5	5.550E-14	1.474E-13
154	Intercept	-5.270E-14	2.230E-14	1090	.018	-9.650E-14	-9.000E-15
156	Intercept	-3.500E-14	3.520E-14	1090	.319	-1.040E-13	3.390E-14
162	Intercept	-7.730E-14	2.200E-14	1090	.000	-1.205E-13	-3.410E-14
165	Intercept	1.380E-14	7.500E-15	1090	.065	-9.000E-16	2.840E-14
166	Intercept	3.000E-14	2.100E-15	1090	.000	2.600E-14	3.410E-14
169	Intercept	-9.120E-14	1.770E-14	1090	2.849E-7	-1.259E-13	-5.660E-14
170	Intercept	-6.330E-14	9.700E-15	1090	1.092E-10	-8.240E-14	-4.430E-14
173	Intercept	8.770E-14	1.830E-14	1090	1.925E-6	5.180E-14	1.237E-13
174	Intercept	-1.043E-13	1.410E-14	1090	2.678E-13	-1.320E-13	-7.670E-14
178	Intercept	-2.250E-13	2.810E-14	1090	2.900E-15	-2.802E-13	-1.699E-13
181	Intercept	-6.870E-14	1.980E-14	1090	.001	-1.075E-13	-2.980E-14
182	Intercept	2.710E-14	1.360E-14	1090	.047	4.000E-16	5.390E-14
192	Intercept	1.700E-14	1.080E-14	1090	.117	-4.200E-15	3.830E-14
202	Intercept	4.820E-14	3.100E-14	1090	.120	-1.250E-14	1.090E-13
204	Intercept	3.130E-13	9.620E-14	1090	.001	1.243E-13	5.017E-13



205	Intercept	5.600E-14	4.600E-15	1090	.000	4.700E-14	6.510E-14
206	Intercept	9.570E-14	2.900E-14	1090	.001	3.880E-14	1.526E-13
209	Intercept	-1.311E-13	4.260E-14	1090	.002	-2.148E-13	-4.750E-14
217	Intercept	2.354E-13	1.004E-13	1090	.019	3.840E-14	4.324E-13
226	Intercept	1.017E-13	1.800E-14	1090	1.879E-8	6.650E-14	1.369E-13
228	Intercept	1.231E-13	2.310E-14	1090	1.167E-7	7.780E-14	1.684E-13

a. Target: Kessler16 > 1 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=kescat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq dutiescwc2 dutiesm2 fac2duti
  FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM_USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:44
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1113

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=kescat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq dutiescwc2
dutiesm2 fac2duti
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.06
	Elapsed Time	00:00:01.10

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1100	98.8%
Excluded	13	1.2%
Total	1113	100.0%

### Model Summary

Target	Kessler16 > 1 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	4992.058
	Bayesian	4997.048

Information criteria are based on the -2 log likelihood (4990.054) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Kessler16 > 1 = 1
Data for First Subject	2	1.00
	2	1.00
	2	.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	.00

	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Kessler16 > 1 = 1

**Classification**  
**Overall Percent Correct = 67.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	636	83
	% within Observed	88.5%	11.5%
.00	Count	271	110
	% within Observed	71.1%	28.9%

a. Target: Kessler16 > 1 = 1

Fixed Effects <sup>a</sup>				
Source	F	df1	df2	Sig.
Corrected Model	16.818	9	1090	.000
physical_health	8.797	1	1090	.003
kess_t15	72.114	1	1090	.000
choice_freq	.298	1	1090	.585
bullying_freq	2.797	1	1090	.095

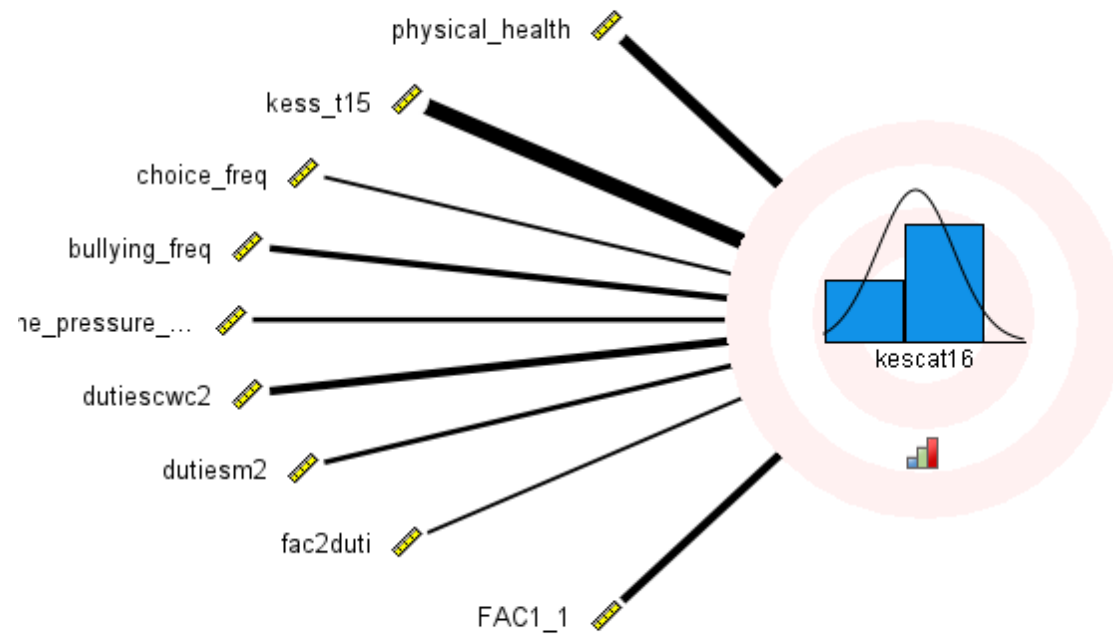
time_pressure_freq	1.693	1	1090	.193
dutiescwc2	4.705	1	1090	.030
dutiesm2	1.752	1	1090	.186
fac2duti	.150	1	1090	.699
FAC1_1	5.143	1	1090	.024

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

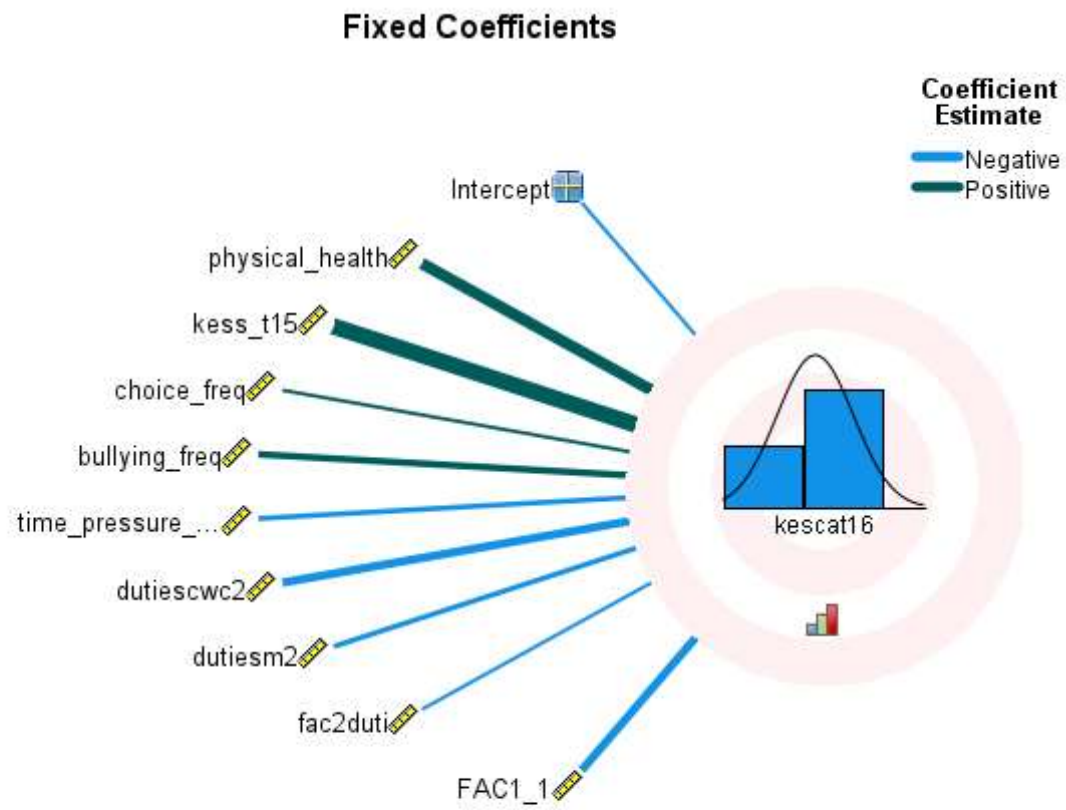


Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-1.100	.9709	-1.133	.258	-3.005	.805	.333	.050	2.238
physical_health	.257	.0868	2.966	.003	.087	.428	1.294	1.091	1.534
kess_t15	1.309	.1541	8.492	.000	1.006	1.611	3.702	2.736	5.009
choice_freq	.029	.0537	.546	.585	-.076	.135	1.030	.927	1.144
bullying_freq	.178	.1063	1.672	.095	-.031	.386	1.195	.970	1.472
time_pressure_freq	-.074	.0572	-1.301	.193	-.187	.038	.928	.830	1.039
dutiescwc2	-.117	.0540	-2.169	.030	-.223	-.011	.890	.800	.989
dutiesm2	-.310	.2341	-1.323	.186	-.769	.150	.734	.463	1.161
fac2duti	-.020	.0522	-.387	.699	-.123	.082	.980	.885	1.086
FAC1_1	-.176	.0775	-2.268	.024	-.328	-.024	.839	.720	.977

Probability distribution: Binomial

Link function: Logit

a. Target: Kessler16 > 1 = 1



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	1.184E-12 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-2.880E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
4	Intercept	-5.703E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
6	Intercept	-8.793E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
22	Intercept	-2.648E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
24	Intercept	-2.381E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
30	Intercept	1.356E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
36	Intercept	-1.812E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
40	Intercept	2.340E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
50	Intercept	1.636E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
61	Intercept	-1.153E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
65	Intercept	-2.292E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
68	Intercept	2.762E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
69	Intercept	-7.500E-15	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
71	Intercept	4.097E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
72	Intercept	-2.244E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
74	Intercept	-7.154E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
75	Intercept	-2.001E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
80	Intercept	-2.701E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
81	Intercept	3.576E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
83	Intercept	2.918E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
84	Intercept	1.052E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
92	Intercept	1.412E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
93	Intercept	2.451E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
98	Intercept	-2.413E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
100	Intercept	3.398E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
106	Intercept	-2.471E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6

107	Intercept	2.167E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
108	Intercept	-4.548E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
110	Intercept	-3.678E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
114	Intercept	-3.530E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
116	Intercept	-6.376E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
122	Intercept	1.810E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
125	Intercept	2.800E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
142	Intercept	6.808E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
144	Intercept	2.892E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
145	Intercept	8.365E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
152	Intercept	1.432E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
154	Intercept	-4.282E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
156	Intercept	-2.423E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
162	Intercept	-1.057E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
165	Intercept	-1.800E-15	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
166	Intercept	4.711E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
169	Intercept	-1.567E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
170	Intercept	-8.303E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
173	Intercept	1.557E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
174	Intercept	-1.538E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
178	Intercept	-3.282E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
181	Intercept	-1.300E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
182	Intercept	6.810E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
192	Intercept	2.637E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
202	Intercept	9.151E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
204	Intercept	4.054E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6

205	Intercept	9.451E-13	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
206	Intercept	1.771E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
209	Intercept	-1.912E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
217	Intercept	3.734E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
226	Intercept	1.581E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6
228	Intercept	1.607E-12	1.088E-6	1090	1.000	-2.135E-6	2.135E-6

a. Target: Kessler16 > 1 = 1

```

FILTER OFF.
USE ALL.
EXECUTE.

```

```

USE ALL.
COMPUTE filter_$=(phycat15 = 0).
VARIABLE LABELS filter_$ 'kescat15 = 0 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

```

```

correlations /variables = phycat16 phycat15 fac1_1.

```

## Correlations

## Notes

Output Created		16-AUG-2021 11:07:45
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		correlations /variables = phycat16 phycat15 fac1_1.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.02



### Correlations

		Phy16 > 2 = 1	phy15 > 2 = 1	REGR factor score 1 for analysis 1
Phy16 > 2 = 1	Pearson Correlation	1	. <sup>a</sup>	-.049
	Sig. (2-tailed)		.	.000
	N	5546	5546	5546
phy15 > 2 = 1	Pearson Correlation	. <sup>a</sup>	. <sup>a</sup>	. <sup>a</sup>
	Sig. (2-tailed)	.		.
	N	5546	5546	5546
REGR factor score 1 for analysis 1	Pearson Correlation	-.049	. <sup>a</sup>	1
	Sig. (2-tailed)	.000	.	
	N	5546	5546	5546

a. Cannot be computed because at least one of the variables is constant.

\*Generalized Linear Mixed Models.

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
  FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created		16-AUG-2021 11:07:45
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:02.13
	Elapsed Time	00:00:02.12

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5069	91.4%
Excluded	477	8.6%
Total	5546	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	28024.204
	Bayesian	28030.732

Information criteria are based on the -2 log likelihood (28022.203) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	1	570
	% within Observed	0.2%	99.8%
.00	Count	0	4498
	% within Observed	0.0%	100.0%

a. Target: Phy16 > 2 = 1

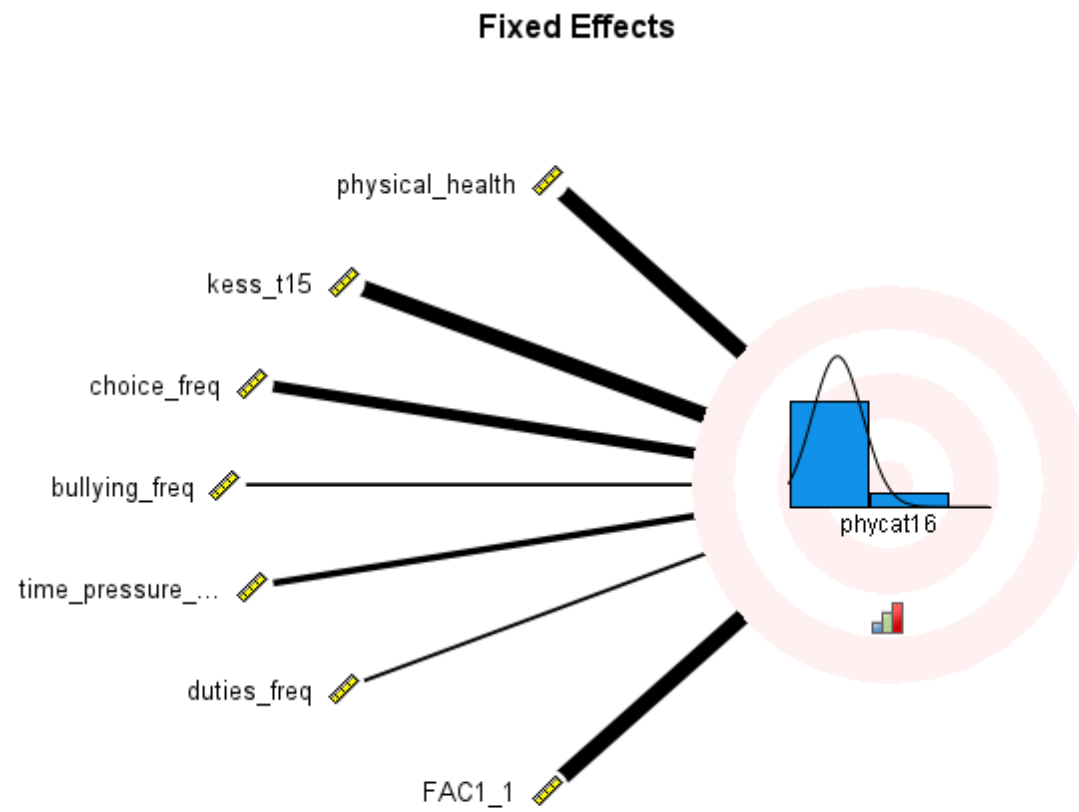
**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	56.271	7	5061	.000
physical_health	169.866	1	5061	.000
kess_t15	45.318	1	5061	.000
choice_freq	8.049	1	5061	.005
bullying_freq	.269	1	5061	.604
time_pressure_freq	3.046	1	5061	.081
duties_freq	1.578	1	5061	.209
FAC1_1	22.255	1	5061	.000

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



### Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-5.224	.4147	-12.598	.000	-6.037	-4.411	.005	.002	.012
physical_health	2.000	.1534	13.033	.000	1.699	2.300	7.387	5.468	9.979
kess_t15	.421	.0626	6.732	.000	.299	.544	1.524	1.348	1.723
choice_freq	-.121	.0427	-2.837	.005	-.205	-.037	.886	.815	.963
bullying_freq	.064	.1231	.519	.604	-.177	.305	1.066	.837	1.357
time_pressure_freq	-.063	.0360	-1.745	.081	-.133	.008	.939	.875	1.008
duties_freq	-.056	.0444	-1.256	.209	-.143	.031	.946	.867	1.032
FAC1_1	-.185	.0391	-4.717	.000	-.261	-.108	.831	.770	.898

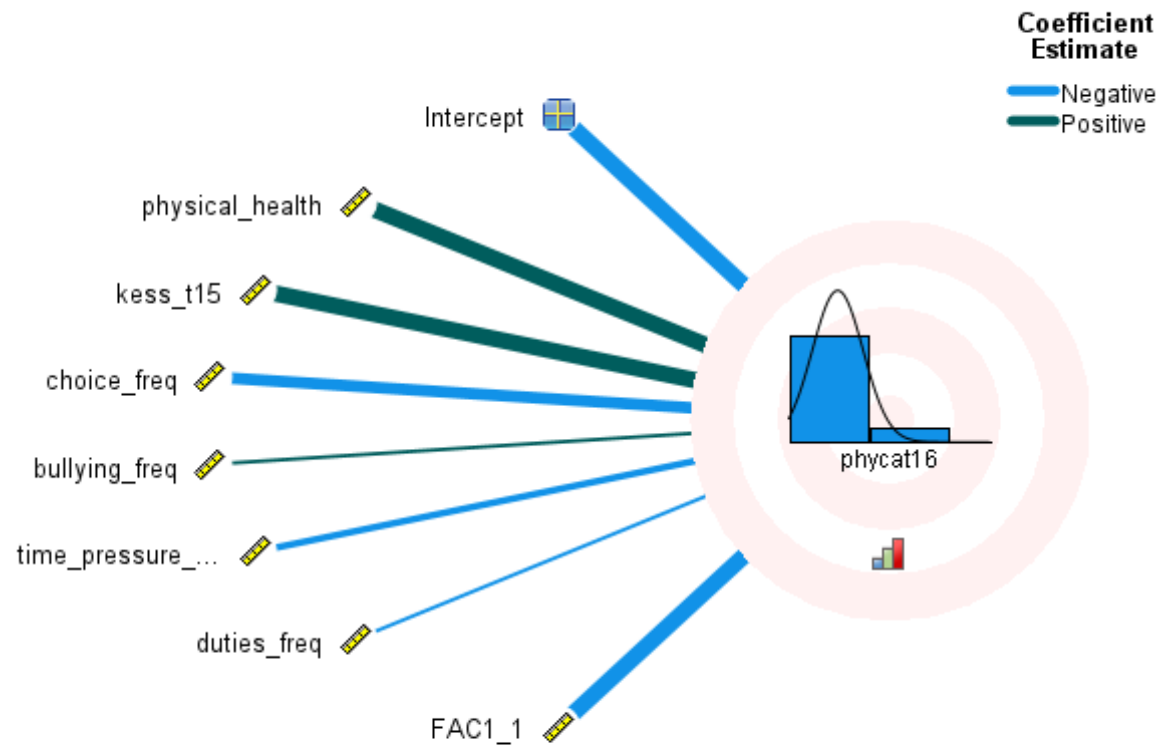
Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.035

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	8
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.035	.034	1.028	.304	.005	.239

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.021	.170	5061	.904	-.313	.355

4	Intercept	-.051	.179	5061	.774	-.402	.299
6	Intercept	-.035	.173	5061	.838	-.375	.304
22	Intercept	-.025	.186	5061	.894	-.390	.341
24	Intercept	-.013	.152	5061	.930	-.310	.284
30	Intercept	.005	.178	5061	.976	-.344	.355
36	Intercept	-.033	.176	5061	.849	-.378	.311
40	Intercept	.088	.175	5061	.616	-.255	.431
50	Intercept	-.010	.180	5061	.956	-.362	.342
61	Intercept	.034	.175	5061	.847	-.310	.378
65	Intercept	.013	.184	5061	.945	-.347	.373
68	Intercept	-.025	.174	5061	.887	-.366	.317
69	Intercept	-.112	.173	5061	.516	-.452	.227
71	Intercept	.049	.180	5061	.785	-.303	.401
72	Intercept	.049	.176	5061	.779	-.295	.393
74	Intercept	.049	.180	5061	.784	-.303	.402
75	Intercept	.000	.176	5061	.999	-.346	.346
80	Intercept	-.021	.184	5061	.911	-.381	.340
81	Intercept	.068	.174	5061	.697	-.274	.409
83	Intercept	-.054	.175	5061	.760	-.397	.290
84	Intercept	-.068	.178	5061	.701	-.417	.280
92	Intercept	.011	.170	5061	.948	-.322	.344
93	Intercept	-.001	.171	5061	.997	-.336	.334
98	Intercept	-.119	.168	5061	.477	-.448	.210
100	Intercept	-.120	.107	5061	.263	-.331	.090
106	Intercept	-.026	.181	5061	.884	-.381	.328
107	Intercept	-.016	.177	5061	.927	-.363	.331

108	Intercept	-.096	.181	5061	.594	-.451	.258
110	Intercept	.070	.118	5061	.554	-.162	.302
114	Intercept	.107	.176	5061	.544	-.239	.452
116	Intercept	.009	.173	5061	.957	-.329	.348
122	Intercept	.091	.156	5061	.559	-.215	.398
125	Intercept	.047	.147	5061	.747	-.240	.335
142	Intercept	-.161	.163	5061	.324	-.481	.159
144	Intercept	-.014	.172	5061	.933	-.352	.323
145	Intercept	-.019	.173	5061	.912	-.357	.319
152	Intercept	-.101	.171	5061	.555	-.436	.234
154	Intercept	-.050	.173	5061	.774	-.388	.289
156	Intercept	.005	.162	5061	.975	-.312	.322
162	Intercept	-.026	.178	5061	.882	-.376	.323
165	Intercept	-.008	.180	5061	.966	-.360	.344
166	Intercept	-.056	.184	5061	.760	-.417	.304
169	Intercept	-.009	.176	5061	.959	-.354	.336
170	Intercept	.027	.178	5061	.878	-.321	.376
173	Intercept	-.068	.176	5061	.699	-.414	.277
174	Intercept	.026	.175	5061	.882	-.317	.369
178	Intercept	.349	.163	5061	.032	.030	.668
181	Intercept	-.025	.179	5061	.889	-.375	.326
182	Intercept	-.064	.181	5061	.722	-.419	.290
192	Intercept	-.034	.179	5061	.851	-.385	.317
202	Intercept	-.001	.168	5061	.994	-.330	.327
204	Intercept	.111	.146	5061	.447	-.175	.397
205	Intercept	.034	.183	5061	.854	-.325	.392

206	Intercept	.009	.174	5061	.958	-.333	.351
209	Intercept	.037	.151	5061	.809	-.260	.333
217	Intercept	.118	.134	5061	.378	-.144	.380
226	Intercept	.143	.173	5061	.407	-.195	.482
228	Intercept	-.106	.178	5061	.551	-.456	.243

a. Target:  $\text{Phy16} > 2 = 1$

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
    FAC1_1 facsq USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:47
----------------	----------------------

Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1 facsq
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```



		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.89
	Elapsed Time	00:00:01.95

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5069	91.4%
Excluded	477	8.6%
Total	5546	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	28065.210
	Bayesian	28071.739

Information criteria are based on the -2 log likelihood (28063.210) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	1	570
	% within Observed	0.2%	99.8%
.00	Count	0	4498
	% within Observed	0.0%	100.0%

a. Target: Phy16 > 2 = 1

**Fixed Effects<sup>a</sup>**

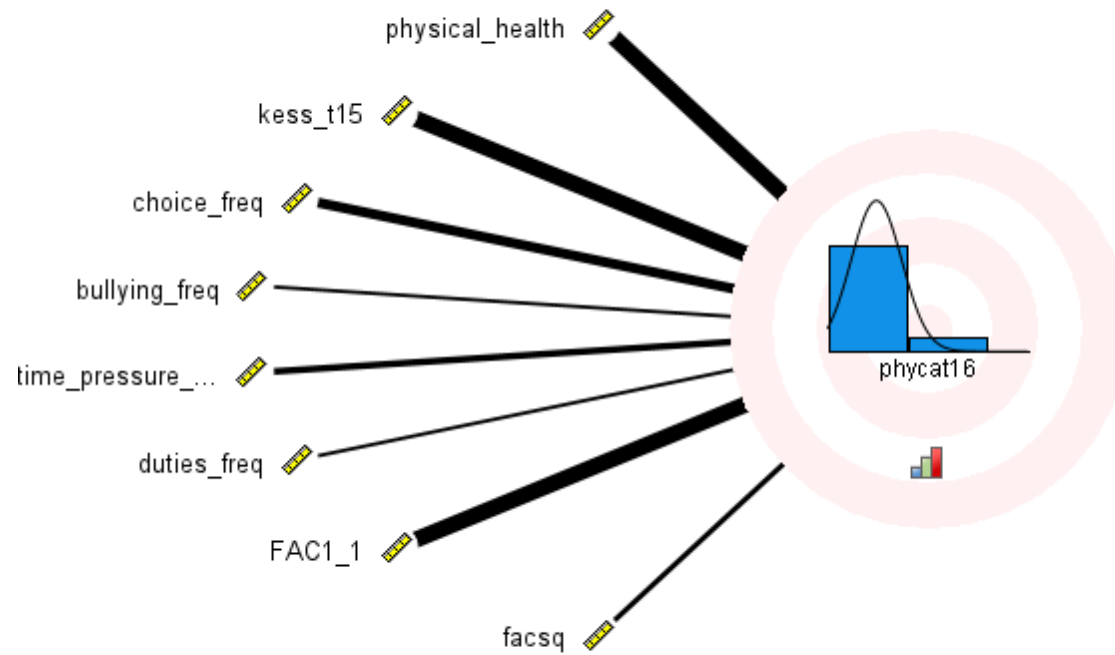
Source	F	df1	df2	Sig.
Corrected Model	47.886	8	5060	.000
physical_health	169.366	1	5060	.000
kess_t15	44.783	1	5060	.000
choice_freq	7.424	1	5060	.006
bullying_freq	.250	1	5060	.617
time_pressure_freq	3.236	1	5060	.072
duties_freq	1.565	1	5060	.211
FAC1_1	22.475	1	5060	.000
facsq	2.410	1	5060	.121

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

### Fixed Effects



### Fixed Coefficients<sup>a</sup>

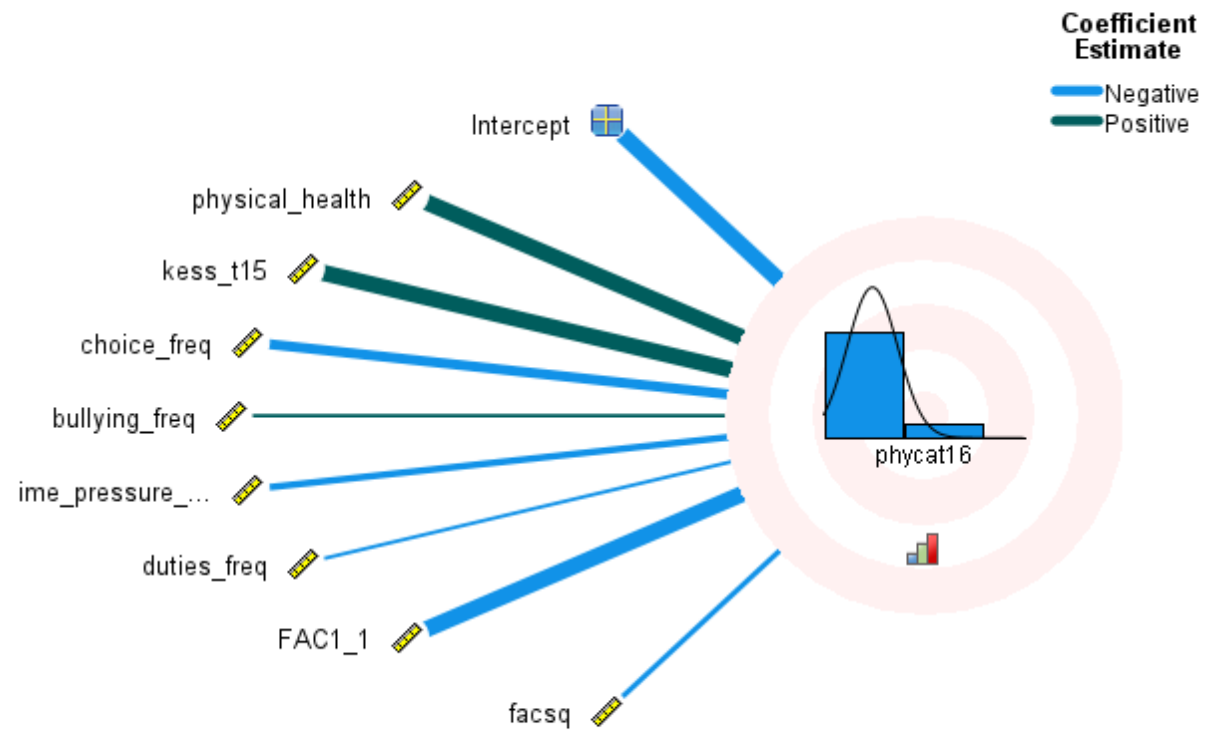
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-5.149	.4071	-12.647	.000	-5.947	-4.351	.006	.003	.013
physical_health	1.996	.1533	13.014	.000	1.695	2.296	7.356	5.446	9.936
kess_t15	.421	.0628	6.692	.000	.297	.544	1.523	1.346	1.722
choice_freq	-.118	.0433	-2.725	.006	-.203	-.033	.889	.817	.967
bullying_freq	.061	.1227	.500	.617	-.179	.302	1.063	.836	1.352
time_pressure_freq	-.064	.0357	-1.799	.072	-.134	.006	.938	.874	1.006
duties_freq	-.056	.0444	-1.251	.211	-.143	.032	.946	.867	1.032
FAC1_1	-.204	.0431	-4.741	.000	-.289	-.120	.815	.749	.887
facsq	-.067	.0430	-1.552	.121	-.151	.018	.935	.860	1.018

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.035

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	9
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.035	.032	1.088	.277	.006	.209

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.031	.169	5060	.855	-.301	.363



4	Intercept	-.021	.180	5060	.908	-.373	.331
6	Intercept	-.006	.173	5060	.972	-.345	.333
22	Intercept	-.025	.184	5060	.894	-.385	.336
24	Intercept	-.021	.151	5060	.888	-.316	.274
30	Intercept	.016	.177	5060	.929	-.331	.363
36	Intercept	-.041	.174	5060	.812	-.382	.299
40	Intercept	.078	.173	5060	.652	-.261	.417
50	Intercept	-.013	.177	5060	.941	-.361	.334
61	Intercept	.038	.174	5060	.827	-.303	.378
65	Intercept	.026	.182	5060	.888	-.332	.384
68	Intercept	-.030	.172	5060	.863	-.367	.308
69	Intercept	-.121	.171	5060	.478	-.456	.214
71	Intercept	.055	.178	5060	.757	-.294	.404
72	Intercept	.068	.174	5060	.698	-.274	.410
74	Intercept	.051	.178	5060	.775	-.298	.399
75	Intercept	.006	.175	5060	.972	-.336	.349
80	Intercept	-.022	.182	5060	.905	-.378	.334
81	Intercept	.057	.172	5060	.742	-.281	.394
83	Intercept	-.046	.173	5060	.791	-.386	.294
84	Intercept	-.073	.176	5060	.679	-.417	.272
92	Intercept	.021	.168	5060	.898	-.308	.351
93	Intercept	.022	.170	5060	.897	-.311	.355
98	Intercept	-.108	.166	5060	.514	-.434	.218
100	Intercept	-.164	.115	5060	.156	-.390	.062
106	Intercept	-.031	.179	5060	.861	-.381	.319
107	Intercept	-.024	.175	5060	.892	-.366	.319

108	Intercept	-.073	.180	5060	.687	-.426	.281
110	Intercept	.077	.116	5060	.510	-.151	.305
114	Intercept	.096	.174	5060	.580	-.245	.438
116	Intercept	.000	.171	5060	.998	-.335	.334
122	Intercept	.069	.156	5060	.659	-.237	.374
125	Intercept	.059	.145	5060	.687	-.226	.343
142	Intercept	-.174	.162	5060	.283	-.491	.144
144	Intercept	.006	.172	5060	.972	-.331	.343
145	Intercept	-.030	.170	5060	.859	-.364	.304
152	Intercept	-.082	.170	5060	.631	-.414	.251
154	Intercept	-.049	.171	5060	.772	-.384	.285
156	Intercept	.018	.160	5060	.909	-.296	.333
162	Intercept	-.019	.177	5060	.917	-.365	.328
165	Intercept	.003	.178	5060	.988	-.347	.352
166	Intercept	-.058	.181	5060	.749	-.414	.298
169	Intercept	.021	.176	5060	.905	-.324	.366
170	Intercept	.020	.176	5060	.907	-.324	.365
173	Intercept	-.072	.174	5060	.679	-.413	.269
174	Intercept	.016	.173	5060	.925	-.323	.355
178	Intercept	.324	.162	5060	.045	.007	.641
181	Intercept	-.029	.177	5060	.870	-.375	.317
182	Intercept	-.066	.178	5060	.710	-.416	.284
192	Intercept	-.023	.177	5060	.899	-.370	.325
202	Intercept	-.005	.166	5060	.976	-.330	.320
204	Intercept	.080	.146	5060	.584	-.207	.367
205	Intercept	.030	.180	5060	.870	-.324	.383

206	Intercept	-.001	.172	5060	.997	-.338	.337
209	Intercept	.011	.151	5060	.939	-.284	.307
217	Intercept	.103	.133	5060	.437	-.157	.364
226	Intercept	.135	.171	5060	.429	-.199	.470
228	Intercept	-.111	.176	5060	.527	-.456	.234

a. Target: Phy16 > 2 = 1

#### AGGREGATE

```

/OUTFILE=* MODE=ADDVARIABLES OVERWRITE = YES
/BREAK=companyId15
/choicem3=MEAN(choice_freq)
/bullym3=MEAN(bullying_freq)
/timem3=MEAN(time_pressure_freq)
/dutiesm3=MEAN(duties_freq).

```

```

COMPUTE choicecwc3 = choice_freq - choicem3.
COMPUTE bullycwc3 = bullying_freq - bullym3.
COMPUTE timecwc3 = time_pressure_freq - timem3.
COMPUTE dutiescwc3 = duties_freq - dutiesm3.

```

```

COMPUTE fac3choi = fac1_1 * choicecwc3.
COMPUTE fac3bull = fac1_1 * bullycwc3.
COMPUTE fac3time = fac1_1 * timecwc3.
COMPUTE fac3duti = fac1_1 * dutiescwc3.

```

#### GENLINMIXED

```

/DATA_STRUCTURE SUBJECTS=companyId15
/FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/FIXED EFFECTS=physical_health kess_t15 choicecwc3 choicem3 fac3choi
bullying_freq time_pressure_freq duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
SCORING=0 SINGULAR=0.000000000001
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created		16-AUG-2021 11:07:49
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choicecwc3 choicem3
fac3choi
  bullying_freq time_pressure_freq
duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
```

		MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:03.09
	Elapsed Time	00:00:02.13

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5069	91.4%

Excluded	477	8.6%
Total	5546	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	28032.218
	Bayesian	28038.746

Information criteria are based on the -2 log likelihood (28030.217) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00

	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target:  $\text{Phy16} > 2 = 1$

**Classification**  
**Overall Percent Correct = 88.7%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	1	570
	% within Observed	0.2%	99.8%
.00	Count	1	4497
	% within Observed	0.0%	100.0%

a. Target:  $\text{Phy16} > 2 = 1$

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	44.675	9	5059	.000
physical_health	170.792	1	5059	.000
kess_t15	43.498	1	5059	.000
choicecwc3	4.911	1	5059	.027
choicem3	2.603	1	5059	.107
fac3choi	2.793	1	5059	.095
bullying_freq	.232	1	5059	.630



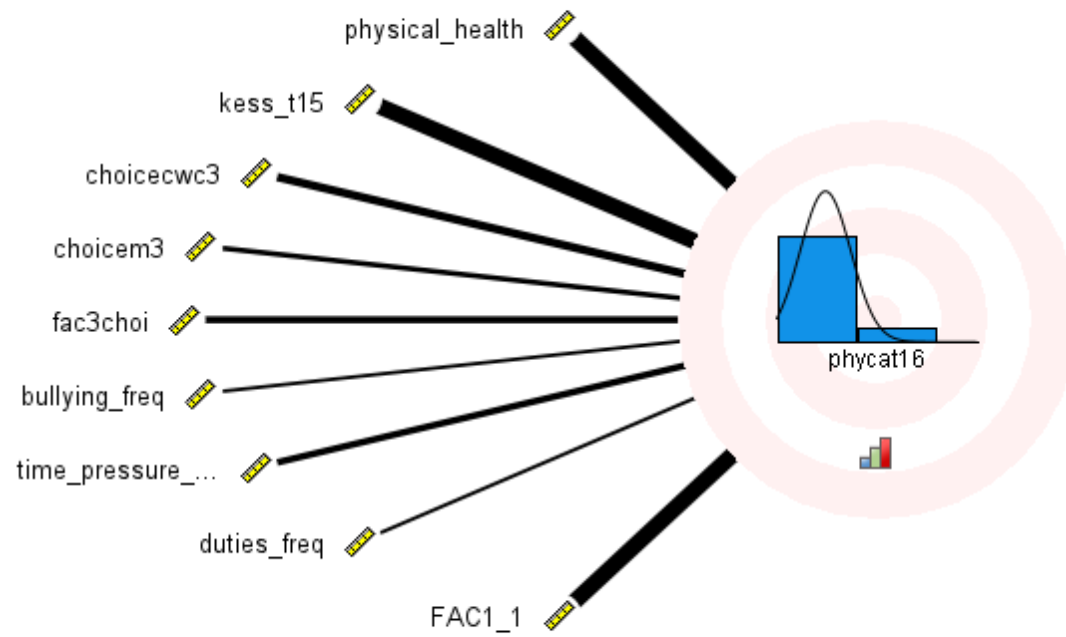
time_pressure_freq	3.308	1	5059	.069
duties_freq	1.495	1	5059	.221
FAC1_1	18.093	1	5059	.000

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



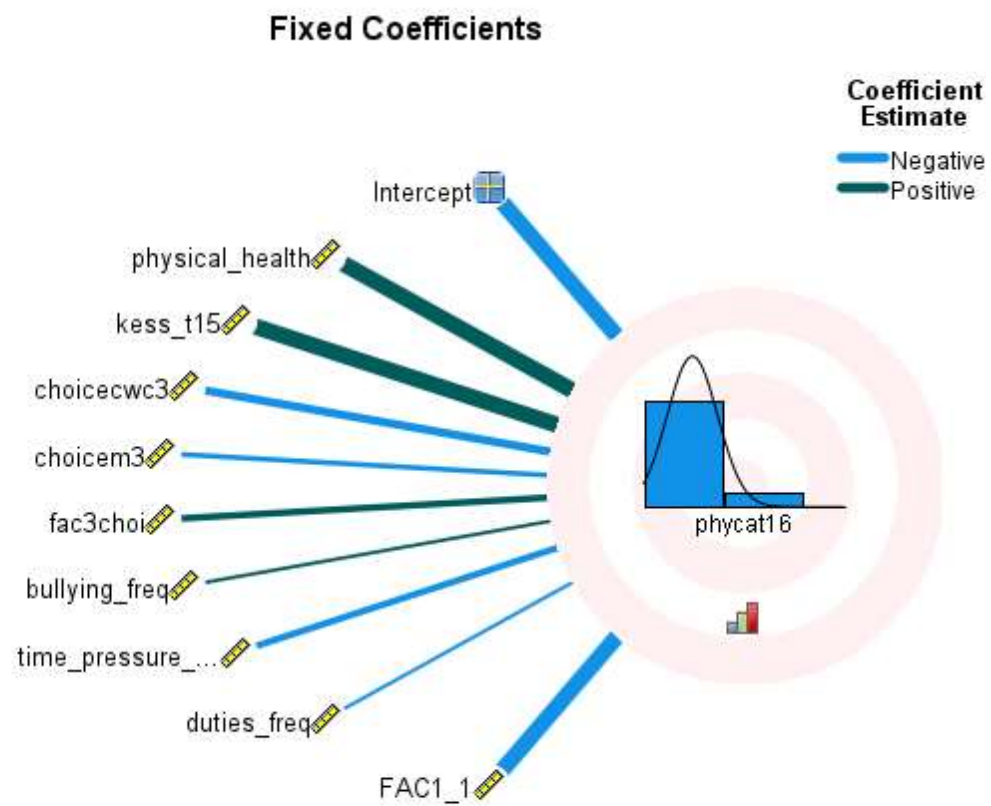
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.306	.8335	-5.166	.000	-5.940	-2.672	.013	.003	.069
physical_health	1.999	.1530	13.069	.000	1.699	2.299	7.381	5.469	9.962
kess_t15	.423	.0641	6.595	.000	.297	.549	1.526	1.346	1.731
choicecwc3	-.102	.0462	-2.216	.027	-.193	-.012	.903	.825	.988
choicem3	-.401	.2485	-1.613	.107	-.888	.086	.670	.412	1.090
fac3choi	.078	.0466	1.671	.095	-.013	.169	1.081	.987	1.185
bullying_freq	.059	.1234	.481	.630	-.183	.301	1.061	.833	1.352
time_pressure_freq	-.065	.0358	-1.819	.069	-.135	.005	.937	.874	1.005
duties_freq	-.055	.0448	-1.223	.221	-.143	.033	.947	.867	1.034
FAC1_1	-.170	.0400	-4.254	.000	-.249	-.092	.844	.780	.912

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.043

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.043	.036	1.198	.231	.008	.222

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.032	.185	5059	.864	-.331	.394

4	Intercept	-.053	.196	5059	.785	-.438	.331
6	Intercept	-.040	.188	5059	.832	-.409	.329
22	Intercept	-.032	.205	5059	.876	-.434	.370
24	Intercept	-.006	.162	5059	.968	-.324	.312
30	Intercept	.002	.194	5059	.991	-.378	.383
36	Intercept	-.033	.192	5059	.864	-.409	.343
40	Intercept	.107	.190	5059	.575	-.266	.480
50	Intercept	-.001	.197	5059	.996	-.387	.386
61	Intercept	.048	.191	5059	.803	-.327	.423
65	Intercept	.014	.201	5059	.943	-.380	.409
68	Intercept	-.008	.191	5059	.965	-.384	.367
69	Intercept	-.130	.188	5059	.489	-.499	.238
71	Intercept	.054	.196	5059	.784	-.331	.438
72	Intercept	.072	.192	5059	.707	-.304	.449
74	Intercept	.051	.196	5059	.793	-.333	.436
75	Intercept	.000	.192	5059	.999	-.377	.377
80	Intercept	-.020	.202	5059	.921	-.416	.376
81	Intercept	.076	.189	5059	.689	-.295	.446
83	Intercept	-.075	.190	5059	.693	-.447	.297
84	Intercept	-.070	.195	5059	.721	-.452	.313
92	Intercept	.018	.184	5059	.922	-.343	.379
93	Intercept	.007	.186	5059	.971	-.358	.372
98	Intercept	-.131	.182	5059	.474	-.488	.227
100	Intercept	-.183	.116	5059	.115	-.412	.045
106	Intercept	-.019	.199	5059	.926	-.409	.372
107	Intercept	-.011	.193	5059	.955	-.390	.368

108	Intercept	-.109	.198	5059	.582	-.498	.280
110	Intercept	.070	.121	5059	.561	-.167	.308
114	Intercept	.145	.193	5059	.455	-.235	.524
116	Intercept	.015	.187	5059	.937	-.353	.382
122	Intercept	.069	.167	5059	.679	-.259	.397
125	Intercept	.052	.155	5059	.737	-.251	.355
142	Intercept	-.199	.175	5059	.258	-.543	.145
144	Intercept	-.009	.188	5059	.963	-.376	.359
145	Intercept	-.032	.187	5059	.866	-.397	.334
152	Intercept	-.104	.187	5059	.578	-.471	.263
154	Intercept	-.051	.188	5059	.787	-.419	.318
156	Intercept	-.016	.173	5059	.926	-.355	.323
162	Intercept	-.026	.195	5059	.894	-.408	.356
165	Intercept	.005	.198	5059	.979	-.382	.393
166	Intercept	-.060	.203	5059	.766	-.457	.337
169	Intercept	.004	.193	5059	.983	-.374	.383
170	Intercept	.040	.194	5059	.836	-.341	.421
173	Intercept	-.077	.192	5059	.690	-.454	.300
174	Intercept	.050	.192	5059	.796	-.327	.427
178	Intercept	.424	.176	5059	.016	.078	.769
181	Intercept	-.035	.195	5059	.858	-.417	.347
182	Intercept	-.064	.199	5059	.747	-.454	.326
192	Intercept	-.032	.196	5059	.869	-.417	.352
202	Intercept	.002	.181	5059	.990	-.352	.357
204	Intercept	.064	.158	5059	.686	-.246	.374
205	Intercept	.038	.200	5059	.849	-.354	.431



206	Intercept	.013	.189	5059	.947	-.359	.384
209	Intercept	.013	.160	5059	.935	-.301	.327
217	Intercept	.094	.139	5059	.498	-.179	.368
226	Intercept	.167	.187	5059	.371	-.199	.533
228	Intercept	-.120	.195	5059	.538	-.502	.262

a. Target: Phy16 > 2 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED_EFFECTS=physical_health kess_t15 choice_freq bullycwc3 bullym3 fac3bull
    time_pressure_freq duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:51
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullycwc3
bullym3 fac3bull
  time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.80
	Elapsed Time	00:00:01.92

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5069	91.4%
Excluded	477	8.6%
Total	5546	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	28026.548
	Bayesian	28033.076

Information criteria are based on the -2 log likelihood (28024.547) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	1	570
	% within Observed	0.2%	99.8%
.00	Count	0	4498
	% within Observed	0.0%	100.0%

a. Target: Phy16 > 2 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	45.069	9	5059	.000
physical_health	171.005	1	5059	.000
kess_t15	44.528	1	5059	.000
choice_freq	7.702	1	5059	.006
bullycwc3	.244	1	5059	.621
bullym3	.102	1	5059	.750
fac3bull	.007	1	5059	.935
time_pressure_freq	3.043	1	5059	.081
duties_freq	1.555	1	5059	.212

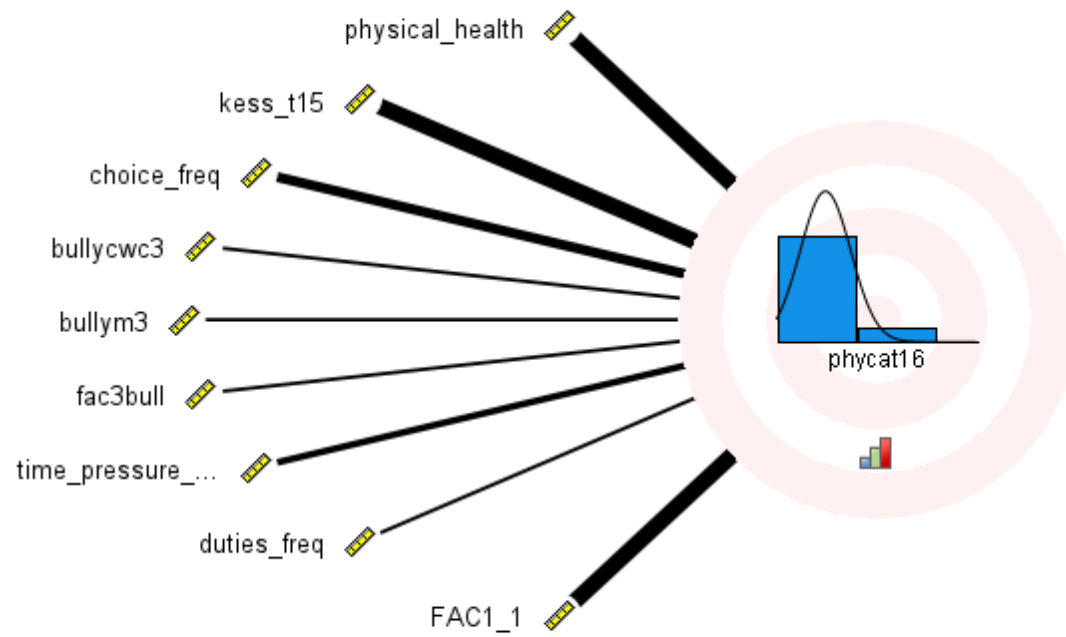
FAC1_1	19.710	1	5059	.000
--------	--------	---	------	------

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

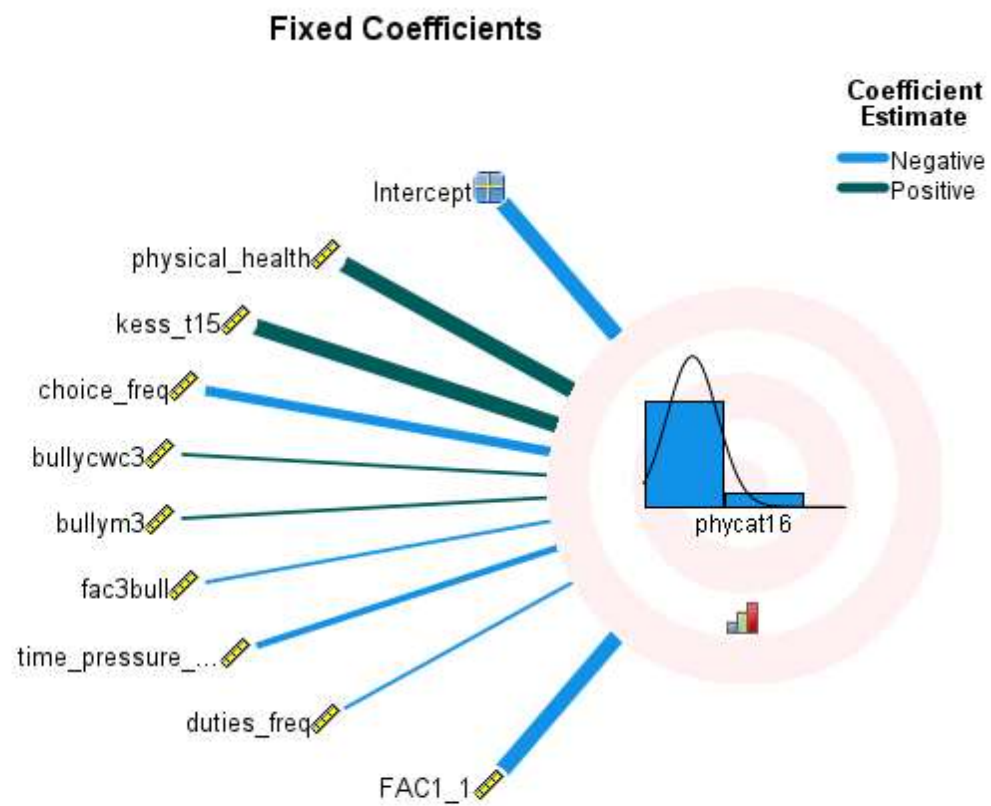


Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-5.425	.9406	-5.768	.000	-7.269	-3.581	.004	.001	.028
physical_health	1.999	.1529	13.077	.000	1.700	2.299	7.385	5.472	9.966
kess_t15	.422	.0632	6.673	.000	.298	.546	1.525	1.347	1.726
choice_freq	-.120	.0434	-2.775	.006	-.205	-.035	.887	.814	.965
bullycwc3	.062	.1246	.494	.621	-.183	.306	1.063	.833	1.358
bullym3	.233	.7291	.319	.750	-1.197	1.662	1.262	.302	5.269
fac3bull	-.010	.1247	-.082	.935	-.255	.234	.990	.775	1.264
time_pressure_freq	-.063	.0362	-1.744	.081	-.134	.008	.939	.875	1.008
duties_freq	-.055	.0443	-1.247	.212	-.142	.032	.946	.868	1.032
FAC1_1	-.188	.0423	-4.440	.000	-.271	-.105	.829	.763	.900

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.040

Covariance Structure: Variance

components

Subject Specification: companyld15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.040	.036	1.120	.263	.007	.230

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.025	.179	5059	.891	-.326	.376

4	Intercept	-.055	.189	5059	.771	-.426	.316
6	Intercept	-.038	.182	5059	.835	-.395	.319
22	Intercept	-.028	.198	5059	.888	-.415	.360
24	Intercept	-.016	.158	5059	.922	-.325	.294
30	Intercept	.006	.188	5059	.976	-.363	.374
36	Intercept	-.035	.185	5059	.849	-.399	.328
40	Intercept	.098	.184	5059	.593	-.263	.459
50	Intercept	-.010	.190	5059	.956	-.382	.361
61	Intercept	.039	.185	5059	.831	-.323	.402
65	Intercept	.013	.194	5059	.946	-.368	.394
68	Intercept	-.027	.183	5059	.884	-.386	.332
69	Intercept	-.124	.182	5059	.495	-.481	.232
71	Intercept	.054	.190	5059	.776	-.318	.426
72	Intercept	.055	.185	5059	.766	-.307	.417
74	Intercept	.052	.190	5059	.786	-.321	.424
75	Intercept	.000	.186	5059	.999	-.365	.364
80	Intercept	-.021	.195	5059	.912	-.403	.360
81	Intercept	.078	.183	5059	.672	-.282	.437
83	Intercept	-.057	.185	5059	.759	-.419	.305
84	Intercept	-.074	.188	5059	.694	-.442	.294
92	Intercept	.012	.178	5059	.946	-.337	.361
93	Intercept	-2.747E-6	.179	5059	1.000	-.352	.352
98	Intercept	-.130	.176	5059	.460	-.475	.215
100	Intercept	-.131	.116	5059	.260	-.359	.097
106	Intercept	-.028	.191	5059	.882	-.403	.346
107	Intercept	-.017	.186	5059	.927	-.383	.348

108	Intercept	-.105	.191	5059	.582	-.481	.270
110	Intercept	.067	.124	5059	.589	-.177	.311
114	Intercept	.121	.186	5059	.516	-.244	.485
116	Intercept	.012	.182	5059	.946	-.344	.368
122	Intercept	.095	.164	5059	.564	-.227	.417
125	Intercept	.054	.152	5059	.722	-.244	.353
142	Intercept	-.177	.171	5059	.300	-.513	.158
144	Intercept	-.013	.181	5059	.941	-.369	.342
145	Intercept	-.018	.182	5059	.923	-.374	.339
152	Intercept	-.115	.181	5059	.523	-.470	.239
154	Intercept	-.057	.182	5059	.755	-.413	.300
156	Intercept	.010	.169	5059	.954	-.322	.342
162	Intercept	-.029	.188	5059	.876	-.398	.339
165	Intercept	-.006	.190	5059	.973	-.379	.366
166	Intercept	-.063	.195	5059	.748	-.444	.319
169	Intercept	-.009	.185	5059	.962	-.372	.355
170	Intercept	.031	.187	5059	.870	-.337	.398
173	Intercept	-.074	.186	5059	.689	-.439	.290
174	Intercept	.028	.184	5059	.881	-.334	.389
178	Intercept	.379	.170	5059	.025	.047	.712
181	Intercept	-.032	.189	5059	.866	-.403	.339
182	Intercept	-.070	.191	5059	.715	-.445	.305
192	Intercept	-.040	.189	5059	.833	-.411	.331
202	Intercept	-.002	.176	5059	.993	-.346	.343
204	Intercept	.114	.153	5059	.455	-.185	.413
205	Intercept	.038	.193	5059	.845	-.341	.417

206	Intercept	.012	.184	5059	.946	-.348	.372
209	Intercept	.040	.157	5059	.801	-.268	.347
217	Intercept	.132	.140	5059	.347	-.143	.406
226	Intercept	.159	.181	5059	.380	-.196	.515
228	Intercept	-.120	.188	5059	.523	-.489	.249

a. Target: Phy16 > 2 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq timecwc3 timem3 fac3time
  duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:53
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546



## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
timecwc3 timem3 fac3time
  duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:02.47
	Elapsed Time	00:00:02.47

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5069	91.4%
Excluded	477	8.6%
Total	5546	100.0%

### Model Summary

Target	Phy16 > 2 = 1
Probability Distribution	Binomial
Link Function	Logit
Information Criterion	<u>Akaike Corrected</u> 28030.813
	Bayesian 28037.342

Information criteria are based on the -2 log likelihood (28028.813) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	1	570
	% within Observed	0.2%	99.8%
.00	Count	0	4498
	% within Observed	0.0%	100.0%

a. Target: Phy16 > 2 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	45.995	9	5059	.000
physical_health	169.836	1	5059	.000
kess_t15	45.965	1	5059	.000
choice_freq	8.160	1	5059	.004
bullying_freq	.265	1	5059	.607
timecwc3	2.622	1	5059	.105
timem3	.762	1	5059	.383
fac3time	.001	1	5059	.975
duties_freq	1.621	1	5059	.203

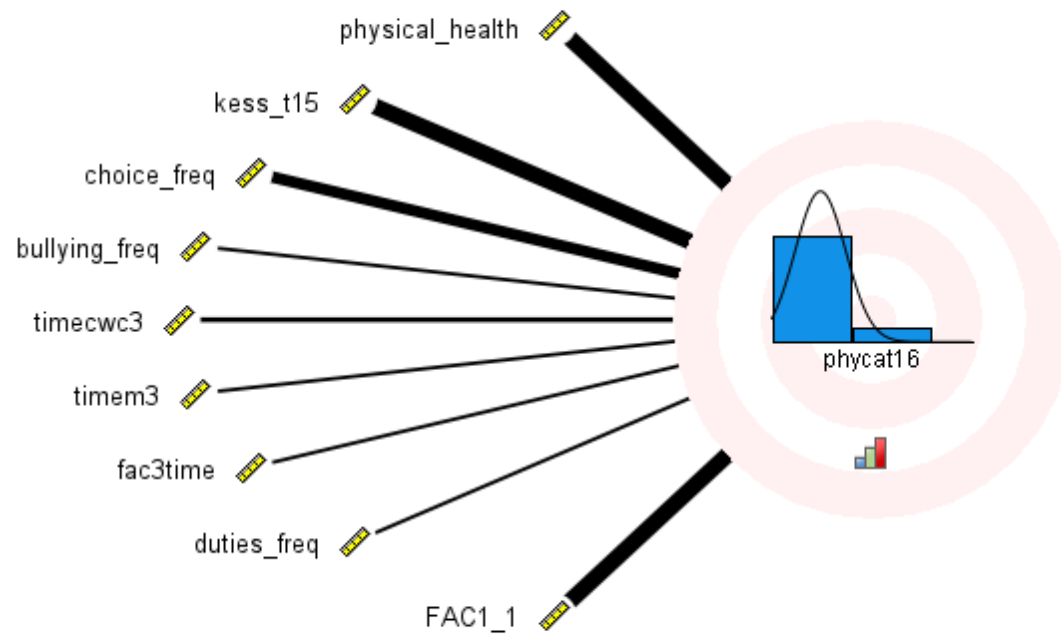
FAC1_1	21.699	1	5059	.000
--------	--------	---	------	------

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



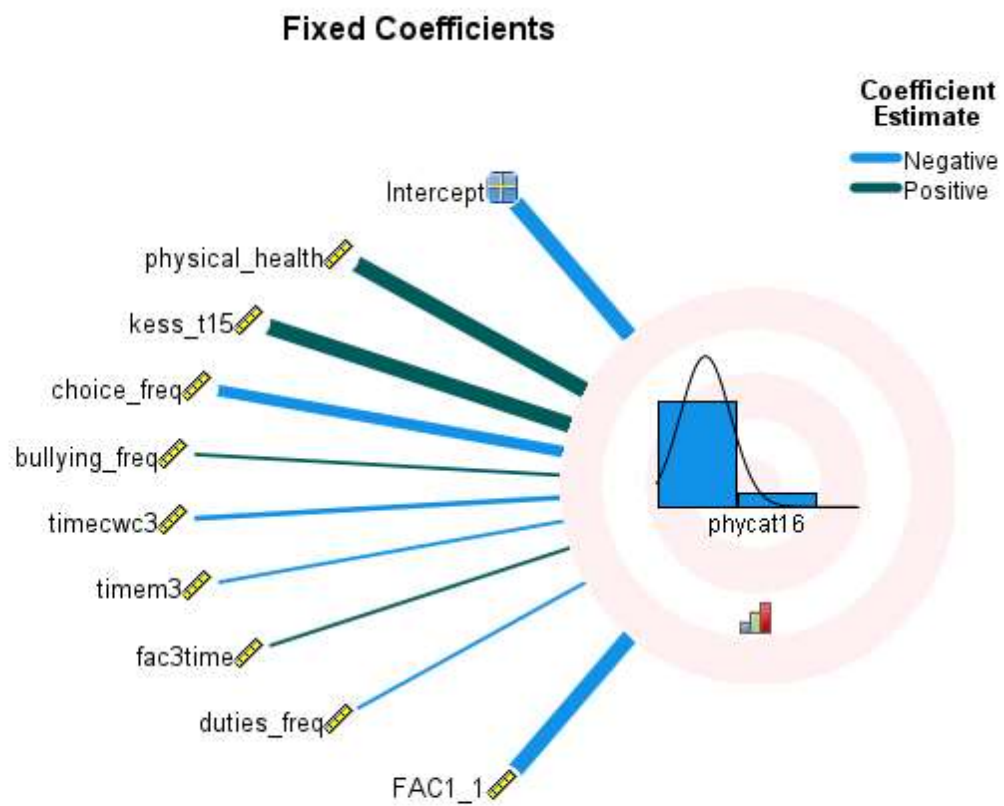
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.889	.7196	-6.794	.000	-6.300	-3.478	.008	.002	.031
physical_health	2.001	.1535	13.032	.000	1.700	2.302	7.397	5.474	9.995
kess_t15	.420	.0620	6.780	.000	.299	.542	1.522	1.348	1.719
choice_freq	-.122	.0427	-2.857	.004	-.206	-.038	.885	.814	.962
bullying_freq	.064	.1235	.515	.607	-.178	.306	1.066	.837	1.358
timecwc3	-.056	.0348	-1.619	.105	-.124	.012	.945	.883	1.012
timem3	-.200	.2289	-.873	.383	-.648	.249	.819	.523	1.283
fac3time	.001	.0373	.031	.975	-.072	.074	1.001	.931	1.077
duties_freq	-.057	.0444	-1.273	.203	-.144	.031	.945	.866	1.031
FAC1_1	-.184	.0394	-4.658	.000	-.261	-.106	.832	.770	.899

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**



### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.039

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.039	.036	1.077	.282	.006	.240

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.024	.177	5059	.894	-.323	.370

4	Intercept	-.063	.186	5059	.735	-.428	.302
6	Intercept	-.039	.180	5059	.828	-.392	.313
22	Intercept	-.027	.195	5059	.891	-.409	.355
24	Intercept	.000	.159	5059	.998	-.312	.313
30	Intercept	.002	.185	5059	.992	-.362	.365
36	Intercept	-.039	.183	5059	.831	-.397	.319
40	Intercept	.095	.182	5059	.602	-.262	.451
50	Intercept	-.016	.187	5059	.933	-.382	.351
61	Intercept	.031	.182	5059	.864	-.326	.388
65	Intercept	.009	.191	5059	.961	-.366	.385
68	Intercept	-.030	.181	5059	.867	-.385	.324
69	Intercept	-.115	.181	5059	.526	-.469	.240
71	Intercept	.058	.188	5059	.759	-.310	.425
72	Intercept	.048	.182	5059	.793	-.310	.405
74	Intercept	.054	.187	5059	.774	-.313	.421
75	Intercept	.001	.184	5059	.996	-.359	.361
80	Intercept	-.026	.192	5059	.894	-.402	.350
81	Intercept	.061	.181	5059	.738	-.295	.416
83	Intercept	-.059	.182	5059	.745	-.416	.298
84	Intercept	-.073	.185	5059	.695	-.436	.291
92	Intercept	.012	.176	5059	.946	-.333	.357
93	Intercept	-.001	.177	5059	.993	-.349	.346
98	Intercept	-.121	.175	5059	.488	-.464	.222
100	Intercept	-.109	.114	5059	.340	-.332	.115
106	Intercept	-.030	.189	5059	.873	-.400	.340
107	Intercept	-.021	.184	5059	.908	-.382	.339

108	Intercept	-.100	.189	5059	.598	-.470	.271
110	Intercept	.083	.124	5059	.502	-.159	.325
114	Intercept	.112	.183	5059	.539	-.246	.471
116	Intercept	.004	.179	5059	.984	-.347	.355
122	Intercept	.112	.164	5059	.496	-.210	.434
125	Intercept	.074	.158	5059	.642	-.236	.383
142	Intercept	-.153	.174	5059	.380	-.493	.188
144	Intercept	-.021	.179	5059	.908	-.371	.330
145	Intercept	-.021	.179	5059	.909	-.372	.331
152	Intercept	-.108	.178	5059	.542	-.456	.240
154	Intercept	-.049	.180	5059	.783	-.402	.303
156	Intercept	-.008	.168	5059	.963	-.336	.321
162	Intercept	-.031	.185	5059	.869	-.394	.333
165	Intercept	-.007	.187	5059	.971	-.374	.360
166	Intercept	-.059	.192	5059	.759	-.436	.318
169	Intercept	-.009	.183	5059	.961	-.368	.350
170	Intercept	.021	.185	5059	.908	-.341	.384
173	Intercept	-.087	.184	5059	.637	-.447	.274
174	Intercept	.031	.182	5059	.867	-.327	.388
178	Intercept	.380	.169	5059	.025	.049	.710
181	Intercept	-.028	.186	5059	.881	-.393	.337
182	Intercept	-.080	.189	5059	.672	-.449	.290
192	Intercept	-.040	.186	5059	.830	-.405	.325
202	Intercept	-.006	.173	5059	.974	-.346	.334
204	Intercept	.135	.155	5059	.382	-.168	.439
205	Intercept	.032	.191	5059	.868	-.342	.405

206	Intercept	.007	.181	5059	.969	-.348	.362
209	Intercept	.029	.155	5059	.853	-.275	.333
217	Intercept	.124	.137	5059	.366	-.144	.392
226	Intercept	.147	.179	5059	.411	-.204	.498
228	Intercept	-.111	.186	5059	.551	-.476	.254

a. Target:  $\text{Phy16} > 2 = 1$

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq dutiescwc3 dutiesm3 fac3duti
  FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:56
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5546

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq dutiescwc3
dutiesm3 fac3duti
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.83
	Elapsed Time	00:00:01.86

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

### Case Processing Summary

	N	Percent
Included	5069	91.4%
Excluded	477	8.6%
Total	5546	100.0%



### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	28029.443
	Bayesian	28035.971

Information criteria are based on the -2 log likelihood (28027.442) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
	2	.00
Total Number of Levels	58	

Only the first 10 records are displayed.

a. Target:  $\text{Phy16} > 2 = 1$

**Classification**  
**Overall Percent Correct = 88.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	1	570
	% within Observed	0.2%	99.8%
.00	Count	0	4498
	% within Observed	0.0%	100.0%

a. Target:  $\text{Phy16} > 2 = 1$

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	45.588	9	5059	.000
physical_health	169.855	1	5059	.000
kess_t15	44.107	1	5059	.000
choice_freq	7.904	1	5059	.005
bullying_freq	.270	1	5059	.603
time_pressure_freq	3.180	1	5059	.075
dutiescwc3	1.460	1	5059	.227
dutiesm3	.298	1	5059	.585
fac3duti	.257	1	5059	.612

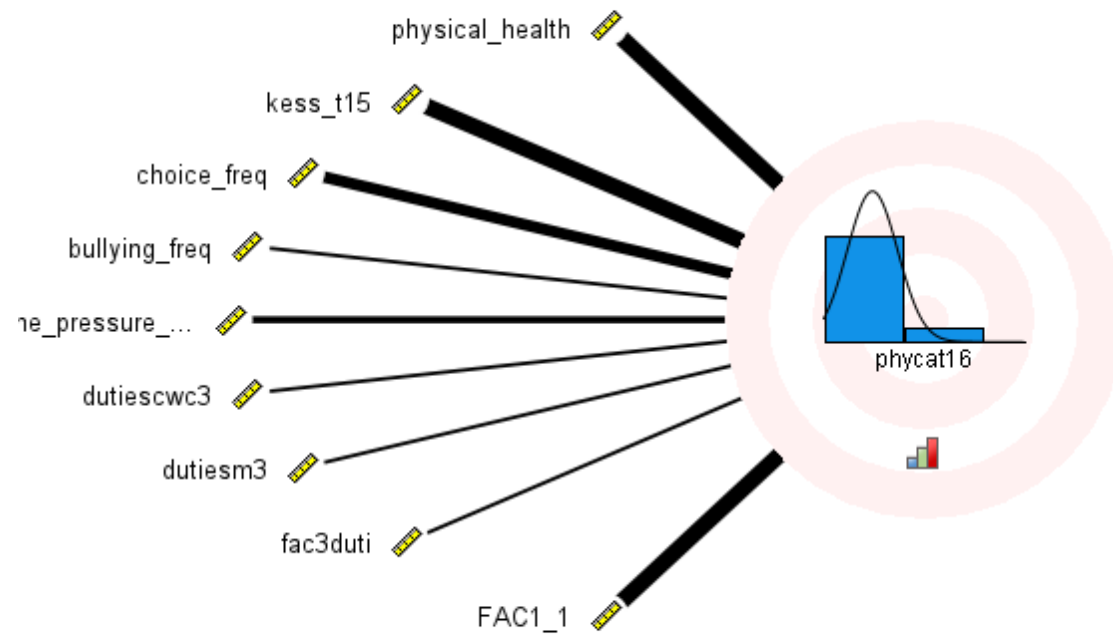
FAC1_1	23.042	1	5059	.000
--------	--------	---	------	------

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.759	1.2911	-3.686	.000	-7.290	-2.228	.009	.001	.108
physical_health	1.999	.1534	13.033	.000	1.699	2.300	7.384	5.466	9.975
kess_t15	.421	.0633	6.641	.000	.296	.545	1.523	1.345	1.724
choice_freq	-.121	.0430	-2.811	.005	-.205	-.037	.886	.814	.964
bullying_freq	.064	.1224	.520	.603	-.176	.304	1.066	.838	1.355
time_pressure_freq	-.064	.0359	-1.783	.075	-.135	.006	.938	.874	1.006
dutiescwc3	-.056	.0463	-1.208	.227	-.147	.035	.946	.864	1.035
dutiesm3	-.167	.3062	-.546	.585	-.767	.433	.846	.464	1.542
fac3duti	-.020	.0388	-.507	.612	-.096	.056	.981	.909	1.058
FAC1_1	-.187	.0390	-4.800	.000	-.264	-.111	.829	.768	.895

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.040

Covariance Structure: Variance

components

Subject Specification: companyld15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		58

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	.040	.035	1.136	.256	.007	.226

Covariance Structure: Variance components

Subject Specification: companyId15

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2	Intercept	.027	.180	5059	.880	-.325	.379



4	Intercept	-.055	.190	5059	.774	-.427	.318
6	Intercept	-.041	.183	5059	.821	-.399	.317
22	Intercept	-.028	.199	5059	.888	-.417	.361
24	Intercept	-.019	.159	5059	.906	-.330	.293
30	Intercept	.007	.189	5059	.971	-.363	.377
36	Intercept	-.037	.186	5059	.842	-.401	.327
40	Intercept	.096	.185	5059	.602	-.266	.458
50	Intercept	-.010	.190	5059	.960	-.383	.364
61	Intercept	.044	.186	5059	.813	-.321	.409
65	Intercept	.015	.195	5059	.938	-.367	.398
68	Intercept	-.029	.184	5059	.876	-.389	.332
69	Intercept	-.127	.183	5059	.487	-.485	.231
71	Intercept	.051	.191	5059	.788	-.322	.425
72	Intercept	.057	.185	5059	.760	-.307	.420
74	Intercept	.052	.191	5059	.786	-.322	.425
75	Intercept	.005	.187	5059	.978	-.362	.372
80	Intercept	-.020	.196	5059	.919	-.404	.364
81	Intercept	.083	.185	5059	.653	-.280	.446
83	Intercept	-.059	.185	5059	.752	-.421	.304
84	Intercept	-.072	.189	5059	.704	-.442	.298
92	Intercept	.012	.179	5059	.948	-.339	.362
93	Intercept	.000	.180	5059	.998	-.353	.353
98	Intercept	-.131	.177	5059	.458	-.477	.215
100	Intercept	-.134	.116	5059	.250	-.361	.094
106	Intercept	-.030	.192	5059	.877	-.406	.347
107	Intercept	-.016	.187	5059	.931	-.383	.351

108	Intercept	-.108	.192	5059	.573	-.484	.268
110	Intercept	.051	.142	5059	.720	-.228	.330
114	Intercept	.120	.186	5059	.518	-.245	.485
116	Intercept	.011	.182	5059	.950	-.345	.368
122	Intercept	.103	.163	5059	.529	-.217	.423
125	Intercept	.053	.152	5059	.726	-.245	.352
142	Intercept	-.180	.172	5059	.294	-.518	.157
144	Intercept	-.015	.182	5059	.933	-.372	.341
145	Intercept	-.026	.182	5059	.888	-.383	.332
152	Intercept	-.111	.180	5059	.539	-.464	.243
154	Intercept	-.055	.182	5059	.763	-.412	.302
156	Intercept	.007	.169	5059	.969	-.325	.338
162	Intercept	-.025	.189	5059	.893	-.396	.345
165	Intercept	-.008	.190	5059	.967	-.381	.365
166	Intercept	-.061	.196	5059	.754	-.445	.322
169	Intercept	-.008	.186	5059	.964	-.373	.357
170	Intercept	.030	.188	5059	.875	-.339	.398
173	Intercept	-.075	.187	5059	.688	-.441	.291
174	Intercept	.032	.185	5059	.863	-.331	.395
178	Intercept	.380	.171	5059	.026	.046	.714
181	Intercept	-.032	.190	5059	.867	-.403	.340
182	Intercept	-.070	.192	5059	.717	-.446	.307
192	Intercept	-.037	.190	5059	.847	-.408	.335
202	Intercept	.002	.176	5059	.990	-.344	.348
204	Intercept	.116	.152	5059	.446	-.182	.414
205	Intercept	.040	.194	5059	.836	-.341	.421

206	Intercept	.014	.184	5059	.941	-.348	.375
209	Intercept	.046	.157	5059	.771	-.263	.355
217	Intercept	.130	.138	5059	.346	-.140	.400
226	Intercept	.159	.182	5059	.383	-.198	.515
228	Intercept	-.125	.189	5059	.510	-.496	.246

a. Target:  $\text{Phy16} > 2 = 1$

```
FILTER OFF.
USE ALL.
EXECUTE.
```

```
USE ALL.
COMPUTE filter_$=(phycat15 = 1).
VARIABLE LABELS filter_$ 'kescat15 = 0 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.
```

```
correlations /variables = phycat16 phycat15 fac1_1.
```

## Correlations

## Notes

Output Created		16-AUG-2021 11:07:58
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		correlations /variables = phycat16 phycat15 fac1_1.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

## Correlations

		Phy16 > 2 = 1	phy15 > 2 = 1	REGR factor score 1 for analysis 1
Phy16 > 2 = 1	Pearson Correlation	1	. <sup>a</sup>	-.029
	Sig. (2-tailed)		.	.269
	N	1422	1422	1422
phy15 > 2 = 1	Pearson Correlation	. <sup>a</sup>	. <sup>a</sup>	. <sup>a</sup>
	Sig. (2-tailed)	.	.	.
	N	1422	1422	1422
REGR factor score 1 for analysis 1	Pearson Correlation	-.029	. <sup>a</sup>	1
	Sig. (2-tailed)	.269	.	
	N	1422	1422	1422

a. Cannot be computed because at least one of the variables is constant.

\*Generalized Linear Mixed Models.

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
  FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

## Notes

Output Created		16-AUG-2021 11:07:58
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.58
	Elapsed Time	00:00:01.36

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
--	---	---------



Included	1370	96.3%
Excluded	52	3.7%
Total	1422	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	6099.700
	Bayesian	6104.914

Information criteria are based on the -2 log likelihood (6097.697) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	1.00

	2	.00
	2	1.00
Total Number of Levels	57	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 63.9%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	858	12
	% within Observed	98.6%	1.4%
.00	Count	483	17
	% within Observed	96.6%	3.4%

a. Target: Phy16 > 2 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	18.437	7	1362	.000
physical_health	32.185	1	1362	.000
kess_t15	11.684	1	1362	.001
choice_freq	4.970	1	1362	.026
bullying_freq	1.151	1	1362	.283
time_pressure_freq	.000	1	1362	.983

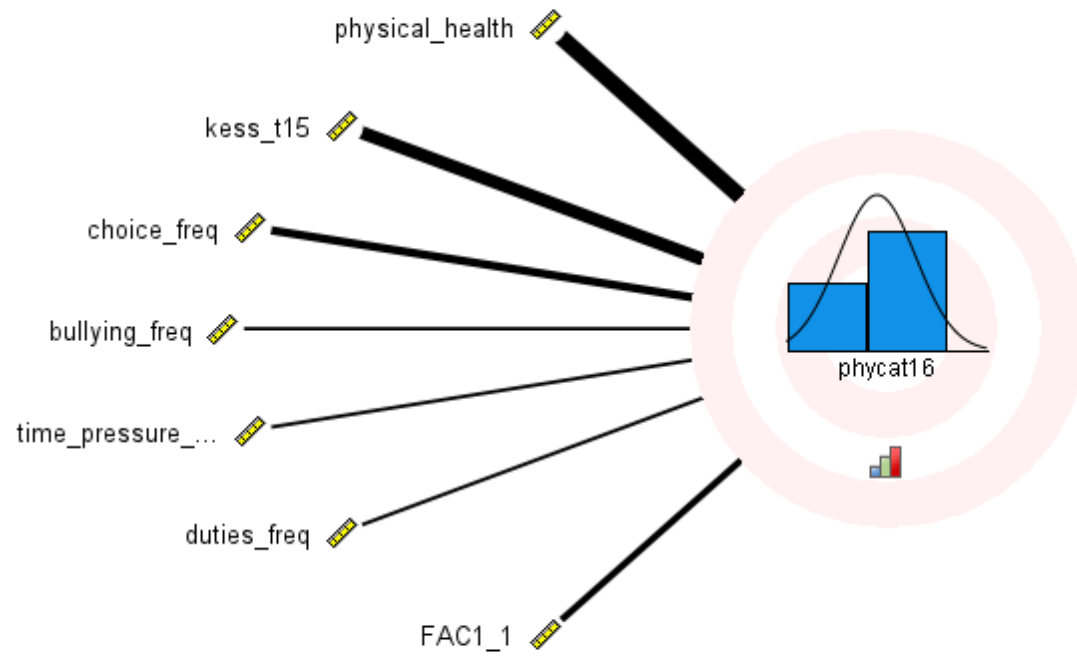
duties_freq	.807	1	1362	.369
FAC1_1	2.999	1	1362	.084

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

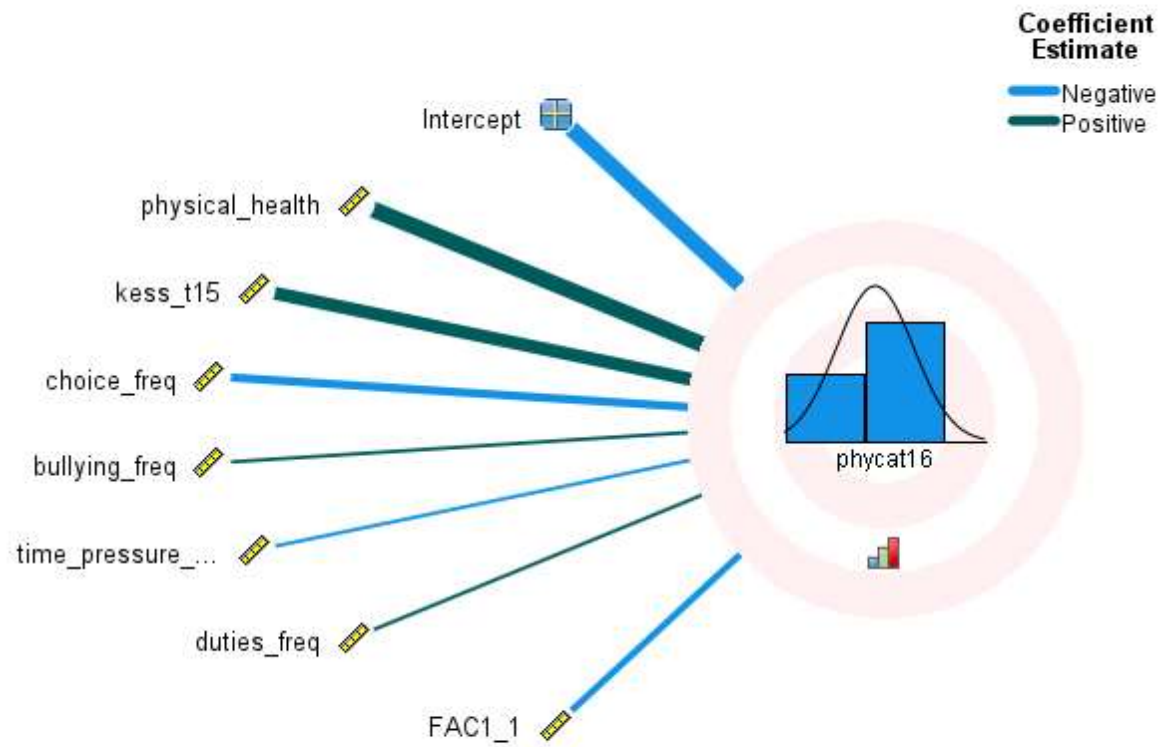
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.193	.7711	-5.438	.000	-5.706	-2.680	.015	.003	.069
physical_health	1.427	.2516	5.673	.000	.934	1.921	4.168	2.544	6.828
kess_t15	.272	.0796	3.418	.001	.116	.428	1.313	1.123	1.535
choice_freq	-.080	.0360	-2.229	.026	-.151	-.010	.923	.860	.990
bullying_freq	.097	.0902	1.073	.283	-.080	.274	1.102	.923	1.315
time_pressure_freq	-.001	.0587	-.021	.983	-.116	.114	.999	.890	1.121
duties_freq	.041	.0457	.898	.369	-.049	.131	1.042	.953	1.140
FAC1_1	-.080	.0460	-1.732	.084	-.170	.011	.923	.844	1.011

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

### Fixed Coefficients



### Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	8
	Random Effects	1 <sup>a</sup>
Common Subjects		57

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	9.733E-12 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound



2	Intercept	-1.258E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
4	Intercept	-1.054E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
6	Intercept	-8.709E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
22	Intercept	-1.927E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
24	Intercept	-1.562E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
30	Intercept	3.789E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
36	Intercept	1.458E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
40	Intercept	-9.591E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
50	Intercept	-2.975E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
61	Intercept	1.424E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
65	Intercept	9.606E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
68	Intercept	3.279E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
69	Intercept	-6.365E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
71	Intercept	1.806E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
72	Intercept	-8.108E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
74	Intercept	9.402E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
75	Intercept	-1.084E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
80	Intercept	-1.089E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
81	Intercept	9.830E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
83	Intercept	-9.819E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
84	Intercept	-2.716E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
92	Intercept	-1.304E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
93	Intercept	4.467E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
98	Intercept	-2.287E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
100	Intercept	-7.786E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
106	Intercept	-9.667E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6

107	Intercept	-4.792E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
108	Intercept	-2.017E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
110	Intercept	-7.294E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
114	Intercept	-9.833E-13	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
116	Intercept	8.577E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
122	Intercept	3.404E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
125	Intercept	2.209E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
142	Intercept	-3.431E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
144	Intercept	-2.004E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
145	Intercept	-6.376E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
152	Intercept	3.107E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
154	Intercept	1.068E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
156	Intercept	2.125E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
162	Intercept	7.155E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
165	Intercept	3.543E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
166	Intercept	-1.112E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
169	Intercept	7.615E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
170	Intercept	-8.652E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
173	Intercept	1.108E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
174	Intercept	2.035E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
178	Intercept	6.604E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
181	Intercept	2.059E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
192	Intercept	-1.355E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
202	Intercept	2.595E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
204	Intercept	4.697E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
205	Intercept	-1.249E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6

206	Intercept	2.536E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
209	Intercept	2.989E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
217	Intercept	-1.465E-11	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
226	Intercept	8.853E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6
228	Intercept	-1.639E-12	3.120E-6	1362	1.000	-6.120E-6	6.120E-6

a. Target: Phy16 > 2 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq duties_freq
    FAC1_1 facsq USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:07:59
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq duties_freq
  FAC1_1 facsq
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
DF_METHOD=RESIDUAL
```

		COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.09
	Elapsed Time	00:00:01.17

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
--	---	---------

Included	1370	96.3%
Excluded	52	3.7%
Total	1422	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	6101.657
	Bayesian	6106.870

Information criteria are based on the -2 log likelihood (6099.654) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00
	2	1.00
	2	.00
	2	1.00

	2	.00
	2	1.00
Total Number of Levels	57	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

### Classification

Overall Percent Correct = 63.8%<sup>a</sup>

Observed		Predicted	
		1.00	.00
1.00	Count	854	16
	% within Observed	98.2%	1.8%
.00	Count	480	20
	% within Observed	96.0%	4.0%

a. Target: Phy16 > 2 = 1

### Fixed Effects<sup>a</sup>

Source	F	df1	df2	Sig.
Corrected Model	15.850	8	1361	.000
physical_health	32.228	1	1361	.000
kess_t15	11.619	1	1361	.001
choice_freq	4.393	1	1361	.036
bullying_freq	1.119	1	1361	.290
time_pressure_freq	.002	1	1361	.965



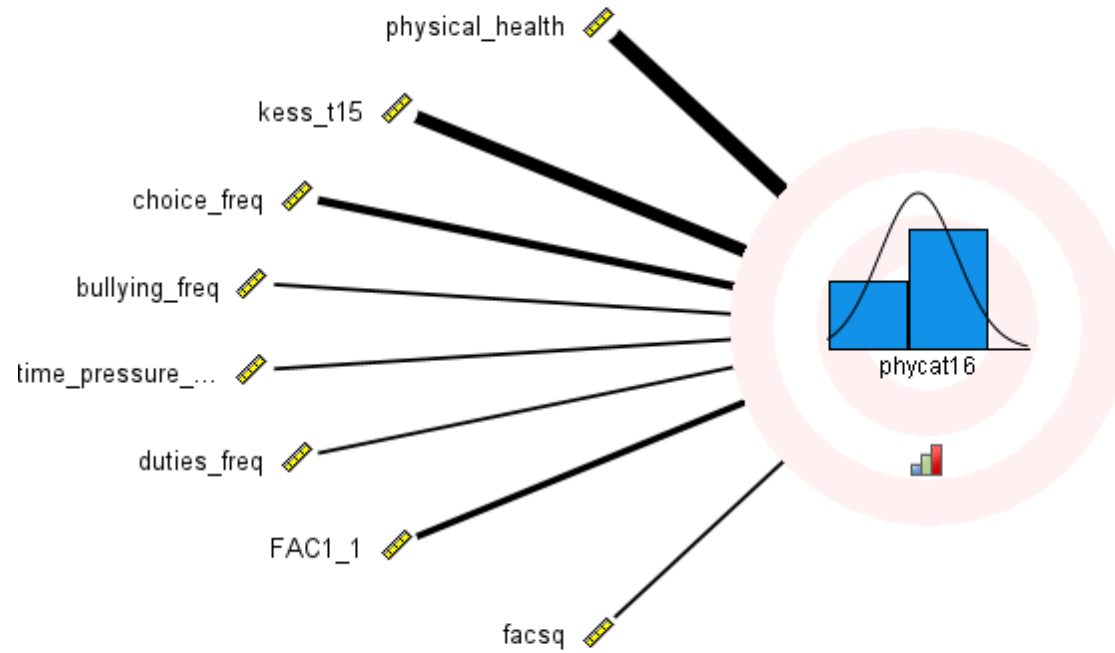
duties_freq	.726	1	1361	.394
FAC1_1	2.807	1	1361	.094
facsq	.397	1	1361	.529

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

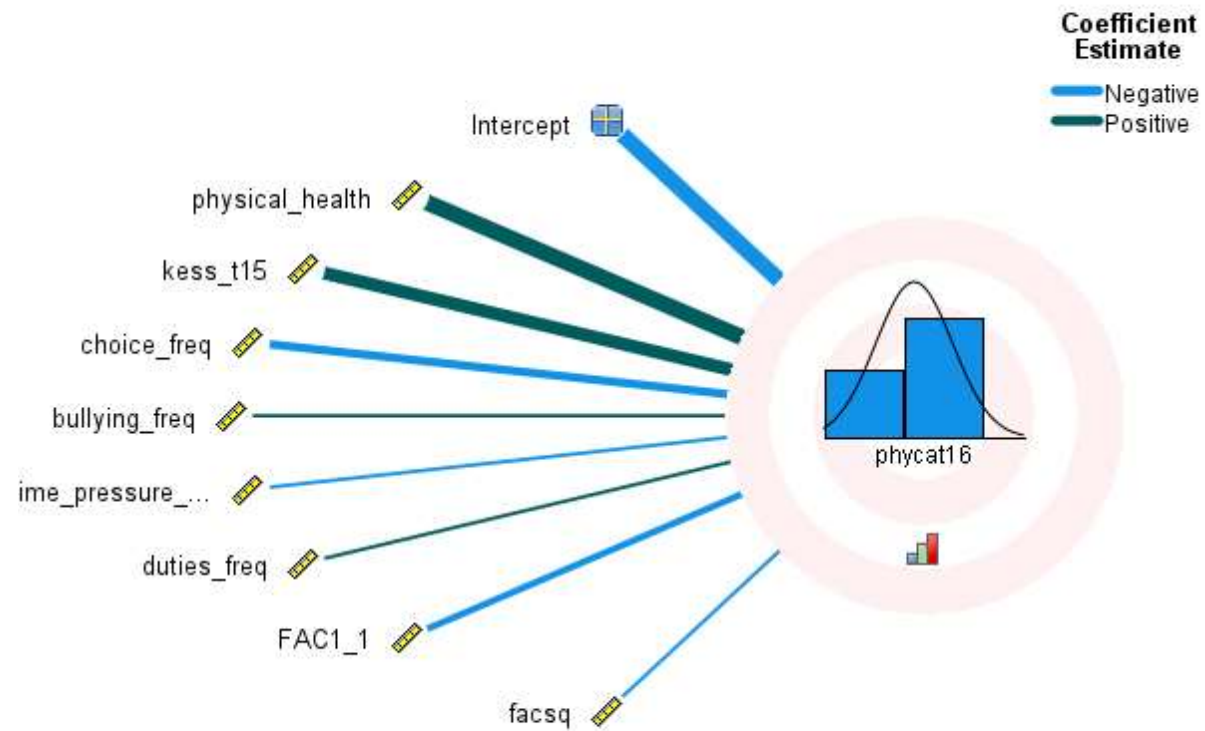
Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.159	.7805	-5.329	.000	-5.690	-2.628	.016	.003	.072
physical_health	1.428	.2515	5.677	.000	.934	1.921	4.169	2.545	6.827
kess_t15	.273	.0800	3.409	.001	.116	.430	1.313	1.123	1.537
choice_freq	-.077	.0370	-2.096	.036	-.150	-.005	.925	.861	.995
bullying_freq	.095	.0900	1.058	.290	-.081	.272	1.100	.922	1.312
time_pressure_freq	-.003	.0594	-.043	.965	-.119	.114	.997	.888	1.121
duties_freq	.040	.0465	.852	.394	-.052	.131	1.040	.950	1.140
FAC1_1	-.094	.0559	-1.675	.094	-.203	.016	.911	.816	1.016
facsq	-.033	.0524	-.630	.529	-.136	.070	.968	.873	1.072

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Coefficients



## Random Effect Covariances

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	9
	Random Effects	1 <sup>a</sup>
Common Subjects		57

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	4.352E-12 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-4.984E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
4	Intercept	-4.309E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
6	Intercept	-1.445E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
22	Intercept	-8.646E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
24	Intercept	-7.522E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
30	Intercept	1.900E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
36	Intercept	5.660E-14	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
40	Intercept	-4.501E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
50	Intercept	-1.426E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
61	Intercept	8.932E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
65	Intercept	4.732E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
68	Intercept	1.340E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
69	Intercept	-3.229E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
71	Intercept	8.348E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
72	Intercept	-3.040E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
74	Intercept	4.240E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
75	Intercept	-4.661E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
80	Intercept	-4.890E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
81	Intercept	4.066E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
83	Intercept	-4.177E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
84	Intercept	-1.305E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
92	Intercept	-5.459E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
93	Intercept	2.388E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
98	Intercept	-9.799E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
100	Intercept	-4.041E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
106	Intercept	-4.584E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6

107	Intercept	-2.501E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
108	Intercept	-7.807E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
110	Intercept	-7.086E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
114	Intercept	-9.717E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
116	Intercept	3.267E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
122	Intercept	1.446E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
125	Intercept	1.133E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
142	Intercept	-1.592E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
144	Intercept	-8.437E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
145	Intercept	-3.544E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
152	Intercept	1.489E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
154	Intercept	4.817E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
156	Intercept	9.921E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
162	Intercept	3.741E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
165	Intercept	2.158E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
166	Intercept	-5.576E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
169	Intercept	5.876E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
170	Intercept	-4.096E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
173	Intercept	4.782E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
174	Intercept	8.814E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
178	Intercept	2.123E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
181	Intercept	9.020E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
192	Intercept	-5.686E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
202	Intercept	1.152E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
204	Intercept	1.935E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
205	Intercept	-5.678E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6



206	Intercept	8.503E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
209	Intercept	1.177E-11	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
217	Intercept	-7.062E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
226	Intercept	3.813E-12	2.086E-6	1361	1.000	-4.092E-6	4.092E-6
228	Intercept	-8.903E-13	2.086E-6	1361	1.000	-4.092E-6	4.092E-6

a. Target: Phy16 > 2 = 1

#### AGGREGATE

```
/OUTFILE=* MODE=ADDVARIABLES OVERWRITE = YES
/BREAK=companyId15
/choice4=MEAN(choice_freq)
/bullym4=MEAN(bullying_freq)
/timem4=MEAN(time_pressure_freq)
/dutiesm4=MEAN(duties_freq).
```

```
COMPUTE choicecwc4 = choice_freq - choice4.
COMPUTE bullycwc4 = bullying_freq - bullym4.
COMPUTE timecwc4 = time_pressure_freq - timem4.
COMPUTE dutiescwc4 = duties_freq - dutiesm4.
```

```
COMPUTE fac4choi = fac1_1 * choicecwc4.
COMPUTE fac4bull = fac1_1 * bullycwc4.
COMPUTE fac4time = fac1_1 * timecwc4.
COMPUTE fac4duti = fac1_1 * dutiescwc4.
```

#### GENLINMIXED

```
/DATA_STRUCTURE SUBJECTS=companyId15
/FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
/TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/FIXED EFFECTS=physical_health kess_t15 choicecwc4 choicem4 fac4choi
bullying_freq time_pressure_freq duties_freq
FAC1_1 USE_INTERCEPT=TRUE
/RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
SCORING=0 SINGULAR=0.000000000001
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

## Generalized Linear Mixed Models

### Notes

Output Created		16-AUG-2021 11:08:00
Comments		
Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choicecwc4 choicem4
fac4choi
  bullying_freq time_pressure_freq
duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
```

		MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.86
	Elapsed Time	00:00:01.67

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1370	96.3%
Excluded	52	3.7%
Total	1422	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	6102.163
	Bayesian	6107.375

Information criteria are based on the -2 log likelihood (6100.160) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00

	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00
Total Number of Levels	57	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 63.6%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	857	13
	% within Observed	98.5%	1.5%
.00	Count	486	14
	% within Observed	97.2%	2.8%

a. Target: Phy16 > 2 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	15.733	9	1360	.000
physical_health	31.945	1	1360	.000
kess_t15	11.434	1	1360	.001

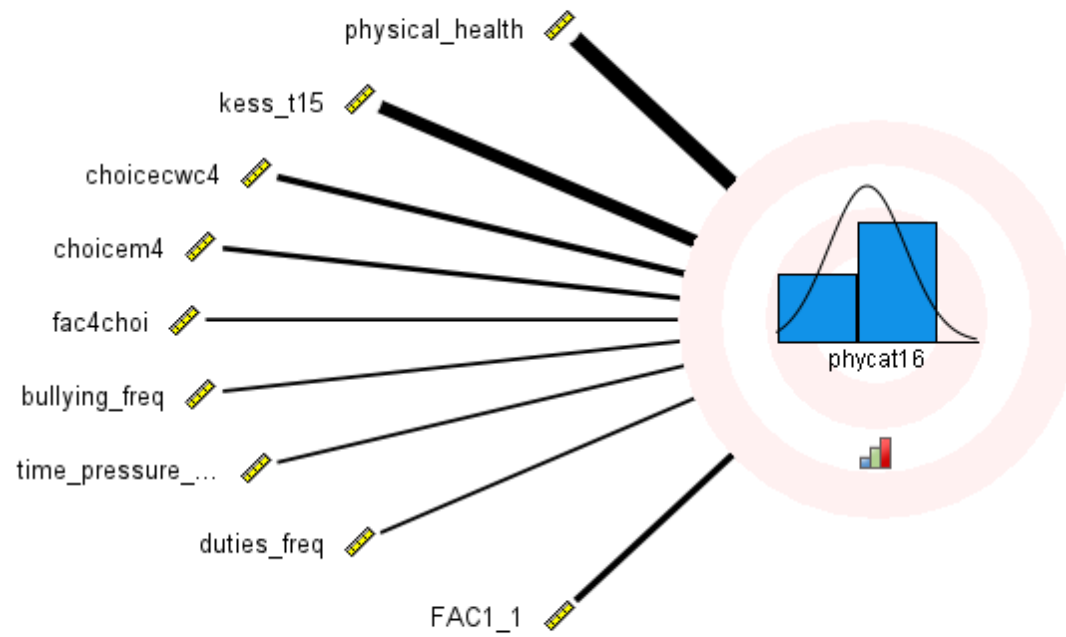
choicecwc4	3.080	1	1360	.079
choicem4	2.040	1	1360	.153
fac4choi	1.087	1	1360	.297
bullying_freq	1.031	1	1360	.310
time_pressure_freq	.004	1	1360	.950
duties_freq	.654	1	1360	.419
FAC1_1	3.000	1	1360	.084

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



## Fixed Coefficients<sup>a</sup>

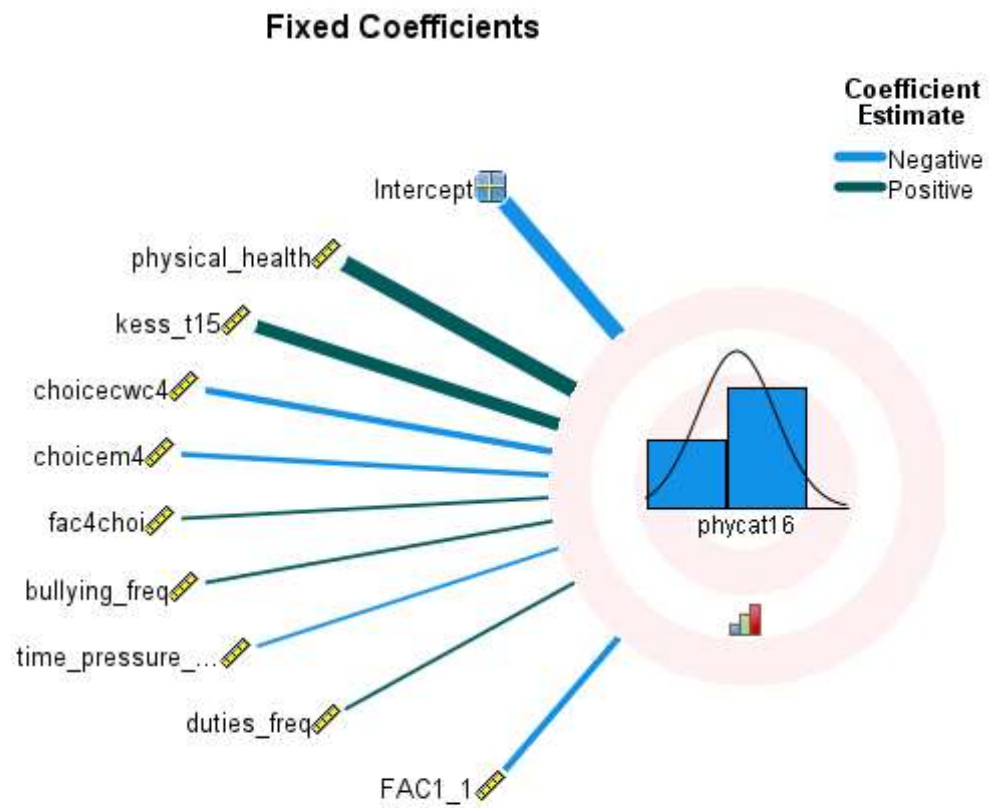


Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-3.717	.9522	-3.904	.000	-5.585	-1.849	.024	.004	.157
physical_health	1.421	.2514	5.652	.000	.928	1.914	4.141	2.529	6.780
kess_t15	.272	.0803	3.381	.001	.114	.429	1.312	1.121	1.536
choicecwc4	-.066	.0376	-1.755	.079	-.140	.008	.936	.870	1.008
choicem4	-.229	.1600	-1.428	.153	-.542	.085	.796	.581	1.089
fac4choi	.042	.0407	1.043	.297	-.037	.122	1.043	.963	1.130
bullying_freq	.093	.0912	1.015	.310	-.086	.272	1.097	.917	1.312
time_pressure_freq	-.004	.0607	-.062	.950	-.123	.115	.996	.884	1.122
duties_freq	.037	.0460	.809	.419	-.053	.127	1.038	.948	1.136
FAC1_1	-.082	.0471	-1.732	.084	-.174	.011	.922	.840	1.011

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		57

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	2.856E-10 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-2.878E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
4	Intercept	-3.161E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
6	Intercept	-2.180E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
22	Intercept	-7.584E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
24	Intercept	-3.422E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
30	Intercept	1.047E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
36	Intercept	1.419E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
40	Intercept	-3.031E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
50	Intercept	-7.151E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
61	Intercept	1.025E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
65	Intercept	2.843E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
68	Intercept	1.577E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
69	Intercept	-1.289E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
71	Intercept	5.630E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
72	Intercept	-2.113E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
74	Intercept	2.639E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
75	Intercept	-3.233E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
80	Intercept	-3.326E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
81	Intercept	3.477E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
83	Intercept	-2.202E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
84	Intercept	-5.389E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
92	Intercept	-3.497E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
93	Intercept	1.765E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
98	Intercept	-6.771E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
100	Intercept	-2.745E-9	1.690E-5	1360	1.000	-3.316E-5	3.315E-5
106	Intercept	-2.569E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5

107	Intercept	-1.204E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
108	Intercept	-5.826E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
110	Intercept	-5.152E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
114	Intercept	4.740E-13	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
116	Intercept	2.615E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
122	Intercept	9.792E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
125	Intercept	6.325E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
142	Intercept	-9.742E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
144	Intercept	-5.793E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
145	Intercept	-1.352E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
152	Intercept	9.479E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
154	Intercept	3.943E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
156	Intercept	5.850E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
162	Intercept	2.566E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
165	Intercept	1.260E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
166	Intercept	-4.072E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
169	Intercept	2.708E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
170	Intercept	-1.890E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
173	Intercept	3.227E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
174	Intercept	5.733E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
178	Intercept	2.380E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
181	Intercept	6.052E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
192	Intercept	-3.938E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
202	Intercept	8.085E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
204	Intercept	1.072E-9	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
205	Intercept	-3.718E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5

206	Intercept	6.845E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
209	Intercept	6.221E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
217	Intercept	-6.929E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
226	Intercept	1.905E-10	1.690E-5	1360	1.000	-3.315E-5	3.315E-5
228	Intercept	-5.186E-11	1.690E-5	1360	1.000	-3.315E-5	3.315E-5

a. Target: Phy16 > 2 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED EFFECTS=physical_health kess_t15 choice_freq bullycwc4 bullym4 fac4bull
    time_pressure_freq duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.00000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:08:02
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422



## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullycwc4
bullym4 fac4bull
  time_pressure_freq duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.44
	Elapsed Time	00:00:01.44

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1370	96.3%
Excluded	52	3.7%
Total	1422	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	6104.947
	Bayesian	6110.160

Information criteria are based on the -2 log likelihood (6102.944) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00
	2	1.00
	2	1.00
	2	.00

	2	1.00
	2	.00
	2	1.00
Total Number of Levels	57	

Only the first 10 records are displayed.

a. Target:  $\text{Phy16} > 2 = 1$

**Classification**  
**Overall Percent Correct = 63.4%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	855	15
	% within Observed	98.3%	1.7%
.00	Count	486	14
	% within Observed	97.2%	2.8%

a. Target:  $\text{Phy16} > 2 = 1$

Fixed Effects <sup>a</sup>				
Source	F	df1	df2	Sig.
Corrected Model	14.588	9	1360	.000
physical_health	32.081	1	1360	.000
kess_t15	11.175	1	1360	.001
choice_freq	4.727	1	1360	.030
bullycwc4	.992	1	1360	.319

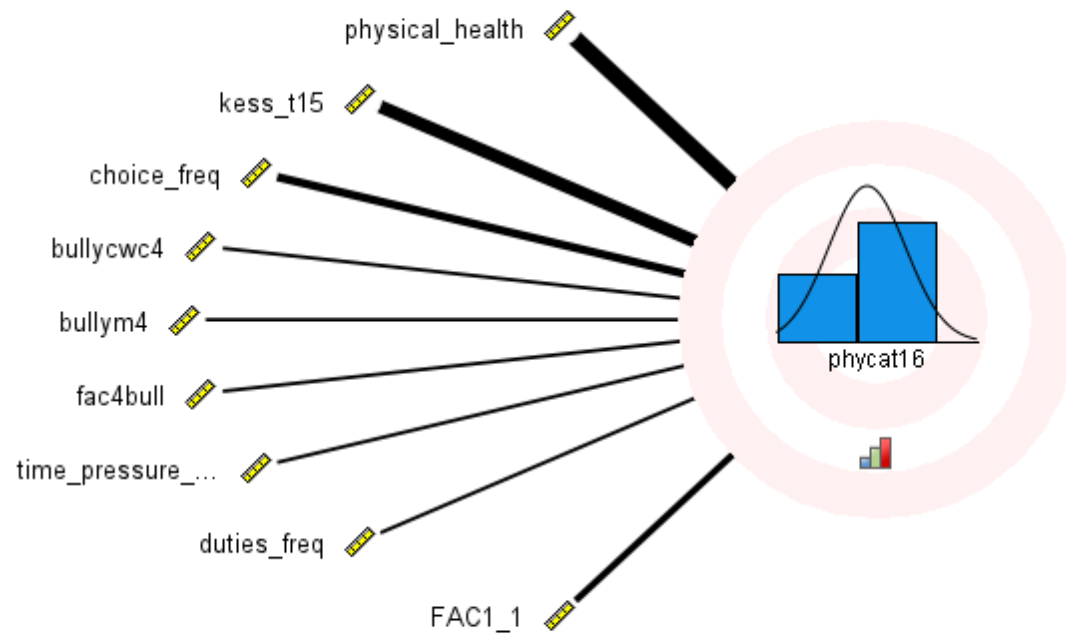
bullym4	1.044	1	1360	.307
fac4bull	1.415	1	1360	.234
time_pressure_freq	.001	1	1360	.976
duties_freq	.717	1	1360	.397
FAC1_1	3.525	1	1360	.061

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



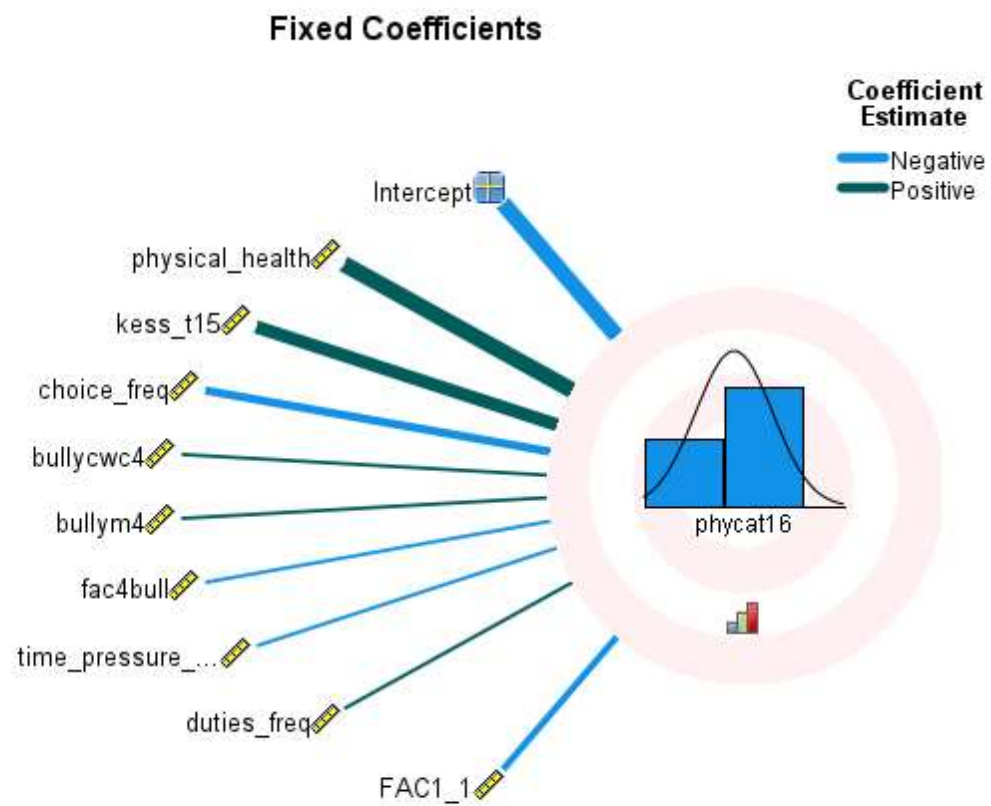
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.429	.7843	-5.647	.000	-5.967	-2.890	.012	.003	.056
physical_health	1.420	.2507	5.664	.000	.928	1.912	4.138	2.530	6.767
kess_t15	.271	.0812	3.343	.001	.112	.431	1.312	1.119	1.538
choice_freq	-.077	.0356	-2.174	.030	-.147	-.008	.926	.863	.992
bullycwc4	.094	.0946	.996	.319	-.091	.280	1.099	.913	1.323
bullym4	.298	.2918	1.022	.307	-.274	.871	1.347	.760	2.388
fac4bull	-.120	.1006	-1.190	.234	-.317	.078	.887	.728	1.081
time_pressure_freq	-.002	.0589	-.030	.976	-.117	.114	.998	.889	1.120
duties_freq	.038	.0454	.847	.397	-.051	.127	1.039	.951	1.136
FAC1_1	-.088	.0468	-1.878	.061	-.179	.004	.916	.836	1.004

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**



### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		57

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	2.950E-11 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-3.296E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
4	Intercept	-3.219E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
6	Intercept	-2.539E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
22	Intercept	-1.341E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
24	Intercept	-4.419E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
30	Intercept	1.313E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
36	Intercept	6.235E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
40	Intercept	-2.868E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
50	Intercept	-8.218E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
61	Intercept	4.300E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
65	Intercept	3.059E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
68	Intercept	1.481E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
69	Intercept	-1.606E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
71	Intercept	5.705E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
72	Intercept	-2.354E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
74	Intercept	2.944E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
75	Intercept	-2.989E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
80	Intercept	-3.588E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
81	Intercept	2.961E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
83	Intercept	-2.881E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
84	Intercept	-6.387E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
92	Intercept	-3.517E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
93	Intercept	1.068E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
98	Intercept	-6.545E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
100	Intercept	-2.492E-10	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
106	Intercept	-2.763E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5

107	Intercept	-1.302E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
108	Intercept	-5.710E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
110	Intercept	-4.057E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
114	Intercept	-1.221E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
116	Intercept	2.816E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
122	Intercept	1.090E-10	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
125	Intercept	6.609E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
142	Intercept	-1.030E-10	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
144	Intercept	-5.712E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
145	Intercept	-1.676E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
152	Intercept	9.701E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
154	Intercept	3.257E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
156	Intercept	6.727E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
162	Intercept	1.895E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
165	Intercept	1.081E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
166	Intercept	-2.442E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
169	Intercept	2.088E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
170	Intercept	-2.337E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
173	Intercept	3.526E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
174	Intercept	5.831E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
178	Intercept	2.321E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
181	Intercept	5.925E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
192	Intercept	-4.006E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
202	Intercept	8.750E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
204	Intercept	1.095E-10	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
205	Intercept	-3.890E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5

206	Intercept	1.072E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
209	Intercept	9.074E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
217	Intercept	-3.623E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
226	Intercept	2.546E-11	5.431E-6	1360	1.000	-1.065E-5	1.065E-5
228	Intercept	-4.014E-12	5.431E-6	1360	1.000	-1.065E-5	1.065E-5

a. Target: Phy16 > 2 = 1

```

GENLINMIXED
  /DATA_STRUCTURE SUBJECTS=companyId15
  /FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
  /FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq timecwc4 timem4 fac4time
  duties_freq
    FAC1_1 USE_INTERCEPT=TRUE
  /RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
  /BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
    MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
    SCORING=0 SINGULAR=0.000000000001
  /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:08:04
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
timecwc4 timem4 fac4time
  duties_freq
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.20
	Elapsed Time	00:00:01.21

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary



	N	Percent
Included	1370	96.3%
Excluded	52	3.7%
Total	1422	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	6107.889
	Bayesian	6113.101

Information criteria are based on the -2 log likelihood (6105.886) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00
	2	1.00
	2	1.00
	2	.00

	2	1.00
	2	.00
	2	1.00
Total Number of Levels	57	

Only the first 10 records are displayed.

a. Target: Phy16 > 2 = 1

**Classification**  
**Overall Percent Correct = 63.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	856	14
	% within Observed	98.4%	1.6%
.00	Count	482	18
	% within Observed	96.4%	3.6%

a. Target: Phy16 > 2 = 1

**Fixed Effects<sup>a</sup>**

Source	F	df1	df2	Sig.
Corrected Model	16.080	9	1360	.000
physical_health	33.070	1	1360	.000
kess_t15	11.596	1	1360	.001
choice_freq	4.810	1	1360	.028
bullying_freq	1.115	1	1360	.291

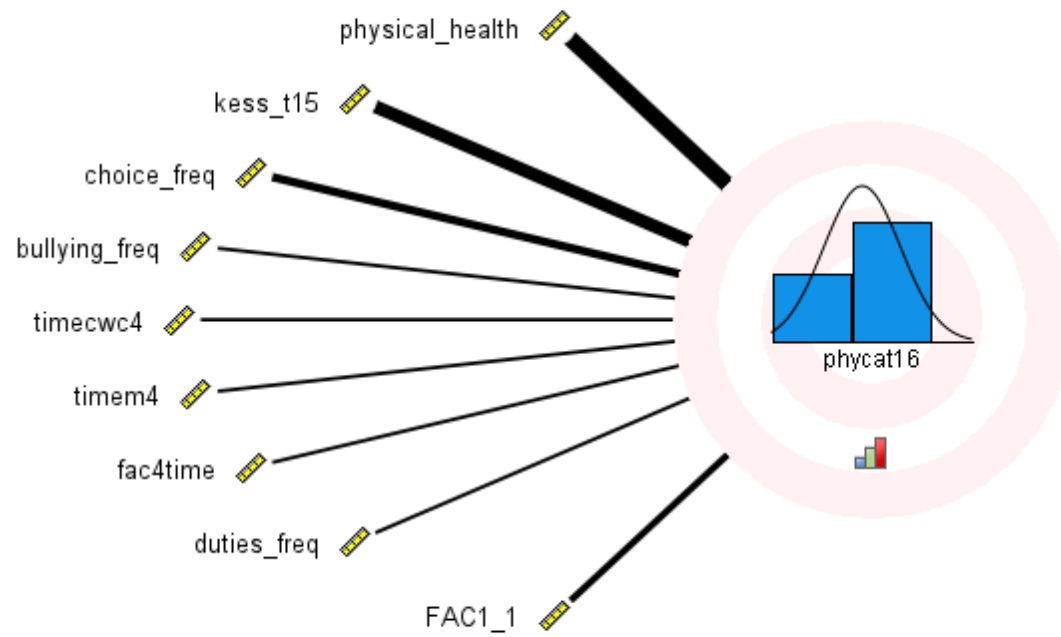
timecwc4	.006	1	1360	.939
timem4	.111	1	1360	.739
fac4time	.114	1	1360	.736
duties_freq	.764	1	1360	.382
FAC1_1	2.963	1	1360	.085

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



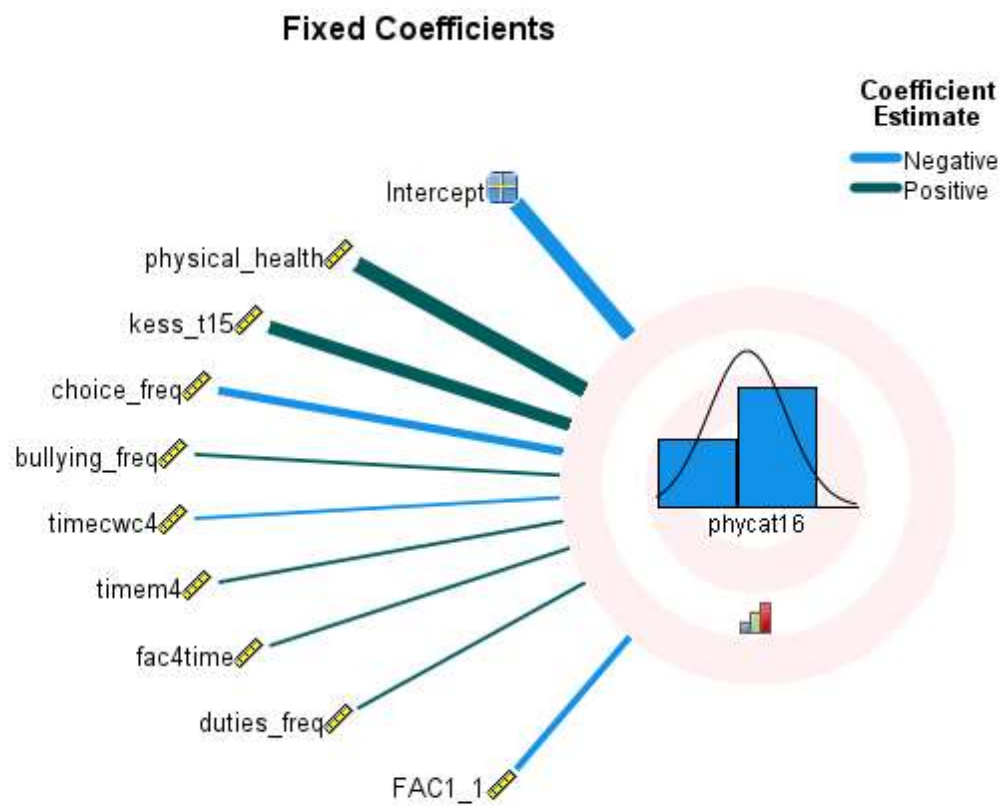
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4.382	.9653	-4.539	.000	-6.275	-2.488	.013	.002	.083
physical_health	1.429	.2485	5.751	.000	.941	1.916	4.174	2.564	6.795
kess_t15	.272	.0800	3.405	.001	.115	.429	1.313	1.122	1.536
choice_freq	-.079	.0362	-2.193	.028	-.150	-.008	.924	.860	.992
bullying_freq	.095	.0904	1.056	.291	-.082	.273	1.100	.921	1.314
timecwc4	-.005	.0630	-.077	.939	-.129	.119	.995	.879	1.126
timem4	.066	.1994	.333	.739	-.325	.458	1.069	.723	1.580
fac4time	.021	.0619	.338	.736	-.101	.142	1.021	.904	1.153
duties_freq	.040	.0461	.874	.382	-.050	.131	1.041	.951	1.140
FAC1_1	-.081	.0473	-1.721	.085	-.174	.011	.922	.840	1.011

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		57

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	3.206E-11 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound



2	Intercept	-4.362E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
4	Intercept	-3.487E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
6	Intercept	-2.992E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
22	Intercept	-7.670E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
24	Intercept	-5.678E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
30	Intercept	1.324E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
36	Intercept	5.723E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
40	Intercept	-3.115E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
50	Intercept	-6.560E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
61	Intercept	6.802E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
65	Intercept	3.186E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
68	Intercept	1.098E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
69	Intercept	-1.961E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
71	Intercept	5.778E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
72	Intercept	-2.432E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
74	Intercept	3.087E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
75	Intercept	-3.189E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
80	Intercept	-3.567E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
81	Intercept	3.304E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
83	Intercept	-3.065E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
84	Intercept	-8.384E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
92	Intercept	-3.971E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
93	Intercept	1.551E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
98	Intercept	-7.326E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
100	Intercept	-2.688E-10	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
106	Intercept	-3.289E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5

107	Intercept	-1.312E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
108	Intercept	-6.821E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
110	Intercept	-2.380E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
114	Intercept	-2.498E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
116	Intercept	2.751E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
122	Intercept	1.057E-10	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
125	Intercept	6.651E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
142	Intercept	-1.174E-10	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
144	Intercept	-6.403E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
145	Intercept	-2.314E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
152	Intercept	1.010E-10	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
154	Intercept	4.072E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
156	Intercept	7.463E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
162	Intercept	2.442E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
165	Intercept	1.437E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
166	Intercept	-3.372E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
169	Intercept	2.731E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
170	Intercept	-2.764E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
173	Intercept	3.852E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
174	Intercept	6.630E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
178	Intercept	2.657E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
181	Intercept	6.807E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
192	Intercept	-4.582E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
202	Intercept	8.958E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
204	Intercept	1.454E-10	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
205	Intercept	-4.000E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5

206	Intercept	1.054E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
209	Intercept	9.760E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
217	Intercept	-4.775E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
226	Intercept	2.887E-11	5.662E-6	1360	1.000	-1.111E-5	1.111E-5
228	Intercept	-6.867E-12	5.662E-6	1360	1.000	-1.111E-5	1.111E-5

a. Target: Phy16 > 2 = 1

GENLINMIXED

```

/ DATA_STRUCTURE SUBJECTS=companyId15
/ FIELDS TARGET=phycat16 TRIALS=NONE OFFSET=NONE
/ TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT
/ FIXED_EFFECTS=physical_health kess_t15 choice_freq bullying_freq time_pressure_freq dutiescwc4 dutiesm4 fac4duti
  FAC1_1 USE_INTERCEPT=TRUE
/ RANDOM USE_INTERCEPT=TRUE SUBJECTS=companyId15 COVARIANCE_TYPE=VARIANCE_COMPONENTS SOLUTION=TRUE
/ BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING INPUTS_CATEGORY_ORDER=DESCENDING
  MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001 (ABSOLUTE)
  SCORING=0 SINGULAR=0.000000000001
/ EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

```

## Generalized Linear Mixed Models

### Notes

Output Created	16-AUG-2021 11:08:05
Comments	

Input	Data	C:\Users\jwb12ppu\Documents\Kevin\MPlus backup\Multicomponent health and wellbeing v2\Multicomponent for Mplus cat.sav
	Active Dataset	DataSet2
	Filter	kescat15 = 0 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1422

## Syntax

```
GENLINMIXED
  /DATA_STRUCTURE
SUBJECTS=companyld15
  /FIELDS TARGET=phycat16
TRIALS=NONE OFFSET=NONE
  /TARGET_OPTIONS
DISTRIBUTION=BINOMIAL
LINK=LOGIT
  /FIXED
EFFECTS=physical_health
kess_t15 choice_freq bullying_freq
time_pressure_freq dutiescwc4
dutiesm4 fac4duti
  FAC1_1
USE_INTERCEPT=TRUE
  /RANDOM
USE_INTERCEPT=TRUE
SUBJECTS=companyld15
COVARIANCE_TYPE=VARIANCE
_COMPONENTS
SOLUTION=TRUE
  /BUILD_OPTIONS
TARGET_CATEGORY_ORDER=
DESCENDING
INPUTS_CATEGORY_ORDER=D
ESCENDING
  MAX_ITERATIONS=100
CONFIDENCE_LEVEL=95
```

		DF_METHOD=RESIDUAL COVB=ROBUST PCONVERGE=0.000001(ABSOLUTE) SCORING=0 SINGULAR=0.000000000001 /EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
Resources	Processor Time	00:00:01.11
	Elapsed Time	00:00:01.13

### Warnings

glm: One or more records are not used in the analysis because they have one or more fields with invalid or missing values.

glm: Valid values for events (target) and trials variables are non-negative and positive integers respectively, and the number of trials cannot be less than the number of events.

glm: The final Hessian matrix is not positive definite although all convergence criteria are satisfied. The procedure continues despite this warning. Subsequent results produced are based on the last iteration. Validity of the model fit is uncertain.

### Case Processing Summary

	N	Percent
Included	1370	96.3%
Excluded	52	3.7%
Total	1422	100.0%

### Model Summary

Target	Phy16 > 2 = 1	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	6120.947
	Bayesian	6126.159

Information criteria are based on the -2 log likelihood (6118.944) and are used to compare models. Models with smaller information criterion values fit better.

### Data Structure<sup>a</sup>

	Subjects company_code	Target Phy16 > 2 = 1
Data for First Subject	2	1.00
	2	.00
	2	1.00
	2	.00
	2	1.00
	2	1.00
	2	1.00
	2	.00

	2	1.00
	2	.00
	2	1.00
Total Number of Levels	57	

Only the first 10 records are displayed.

a. Target:  $\text{Phy16} > 2 = 1$

**Classification**  
**Overall Percent Correct = 63.8%<sup>a</sup>**

Observed		Predicted	
		1.00	.00
1.00	Count	842	28
	% within Observed	96.8%	3.2%
.00	Count	468	32
	% within Observed	93.6%	6.4%

a. Target:  $\text{Phy16} > 2 = 1$

Fixed Effects <sup>a</sup>				
Source	F	df1	df2	Sig.
Corrected Model	15.750	9	1360	.000
physical_health	31.158	1	1360	.000
kess_t15	11.974	1	1360	.001
choice_freq	5.162	1	1360	.023
bullying_freq	.917	1	1360	.338



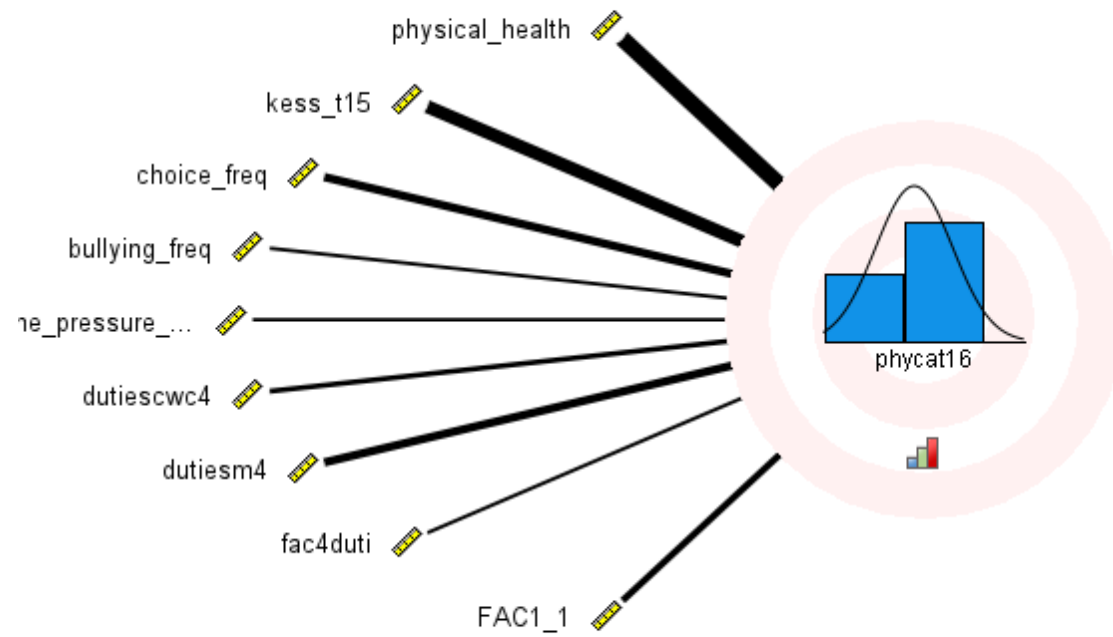
time_pressure_freq	.000	1	1360	.993
dutiescwc4	1.938	1	1360	.164
dutiesm4	4.151	1	1360	.042
fac4duti	.565	1	1360	.452
FAC1_1	3.519	1	1360	.061

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$

## Fixed Effects



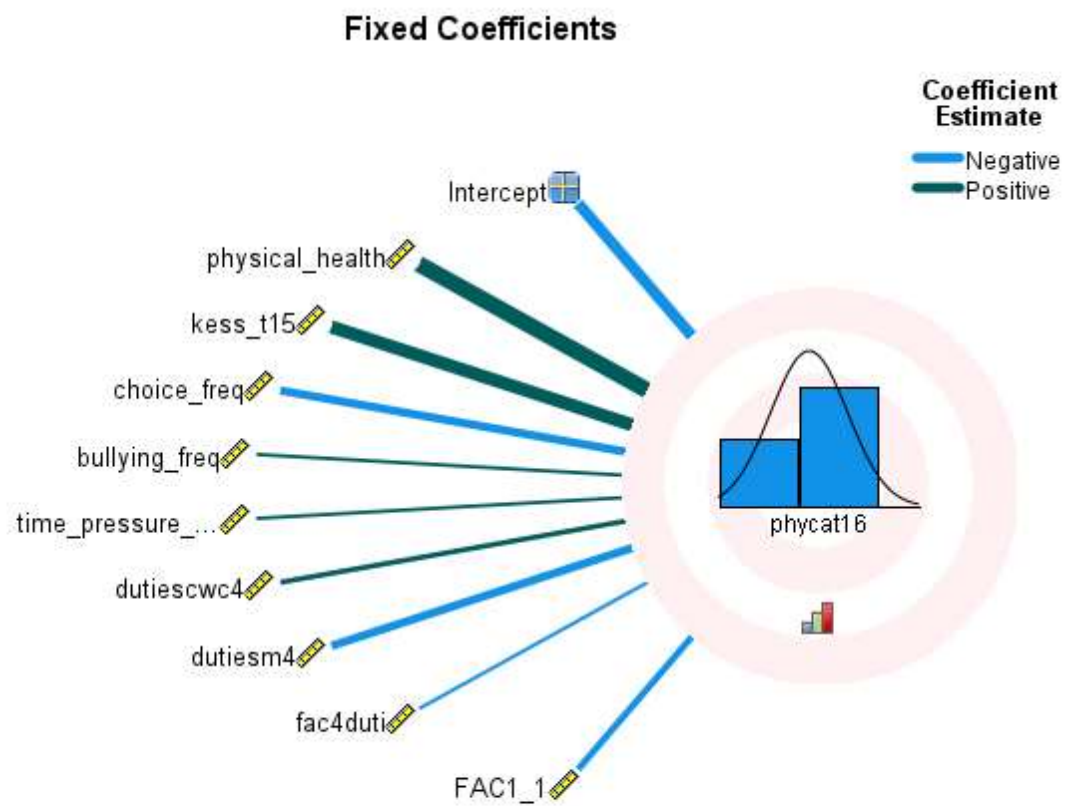
## Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp(Coefficient)	95% Confidence Interval for Exp(Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-2.578	.7872	-3.275	.001	-4.123	-1.034	.076	.016	.356
physical_health	1.434	.2569	5.582	.000	.930	1.938	4.195	2.534	6.944
kess_t15	.272	.0785	3.460	.001	.118	.426	1.312	1.125	1.531
choice_freq	-.081	.0355	-2.272	.023	-.150	-.011	.922	.860	.989
bullying_freq	.088	.0916	.958	.338	-.092	.267	1.092	.912	1.306
time_pressure_freq	.001	.0588	.009	.993	-.115	.116	1.001	.892	1.123
dutiescwc4	.065	.0467	1.392	.164	-.027	.157	1.067	.974	1.169
dutiesm4	-.379	.1858	-2.037	.042	-.743	-.014	.685	.476	.986
fac4duti	-.032	.0421	-.752	.452	-.114	.051	.969	.892	1.052
FAC1_1	-.087	.0465	-1.876	.061	-.178	.004	.917	.837	1.004

Probability distribution: Binomial

Link function: Logit

a. Target:  $\text{Phy16} > 2 = 1$



**Random Effect Covariances**

### Random Effect Block 1

Random Effect Block	Intercept
Intercept	.000

Covariance Structure: Variance

components

Subject Specification: companyId15

### Covariance Parameters

#### Covariance Parameters Summary

Covariance Parameters	Residual Effect	0
	Random Effects	1
Design Matrix Columns	Fixed Effects	10
	Random Effects	1 <sup>a</sup>
Common Subjects		57

Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance.

a. This is the number of columns per common subject.

### Residual Effect

Residual Effect	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Variance	1.000	.	.	.	.	.

Covariance Structure: Scaled Identity

Subject Specification: (None)

### Random Effect

Random Effect Covariance	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower	Upper
Var(Intercept)	2.927E-11 <sup>a</sup>	.	.	.	.	.

Covariance Structure: Variance components

Subject Specification: companyId15

a. This parameter is redundant.

### Random Effects Parameters

### Empirical Best Linear Unbiased Predictions<sup>a</sup>

company_code	Parameter	Prediction	Std. Error	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound

2	Intercept	-1.924E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
4	Intercept	-2.756E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
6	Intercept	-3.730E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
22	Intercept	-1.161E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
24	Intercept	-4.456E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
30	Intercept	1.885E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
36	Intercept	1.481E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
40	Intercept	-3.181E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
50	Intercept	-6.173E-12	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
61	Intercept	2.189E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
65	Intercept	3.496E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
68	Intercept	3.070E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
69	Intercept	-1.819E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
71	Intercept	3.841E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
72	Intercept	-2.520E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
74	Intercept	3.416E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
75	Intercept	-1.676E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
80	Intercept	-3.185E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
81	Intercept	2.423E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
83	Intercept	-9.262E-12	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
84	Intercept	-5.014E-13	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
92	Intercept	-3.776E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
93	Intercept	1.798E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
98	Intercept	-4.912E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
100	Intercept	-2.482E-10	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
106	Intercept	-4.012E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5

107	Intercept	-1.937E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
108	Intercept	-6.019E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
110	Intercept	-1.247E-10	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
114	Intercept	1.157E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
116	Intercept	1.506E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
122	Intercept	9.436E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
125	Intercept	4.962E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
142	Intercept	-8.107E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
144	Intercept	-5.137E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
145	Intercept	-2.694E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
152	Intercept	9.892E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
154	Intercept	2.710E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
156	Intercept	6.369E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
162	Intercept	1.375E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
165	Intercept	1.136E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
166	Intercept	4.702E-13	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
169	Intercept	-1.538E-12	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
170	Intercept	-2.651E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
173	Intercept	3.890E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
174	Intercept	6.811E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
178	Intercept	3.406E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
181	Intercept	5.790E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
192	Intercept	-3.325E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
202	Intercept	6.197E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
204	Intercept	1.508E-10	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
205	Intercept	-3.282E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5



206	Intercept	1.870E-12	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
209	Intercept	5.152E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
217	Intercept	7.164E-12	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
226	Intercept	1.962E-11	5.410E-6	1360	1.000	-1.061E-5	1.061E-5
228	Intercept	-8.730E-13	5.410E-6	1360	1.000	-1.061E-5	1.061E-5

a. Target:  $\text{Phy16} > 2 = 1$

FILTER OFF.  
USE ALL.  
EXECUTE.

HLM-7 results

Variable labels

Physical\_health - 2105 physical health, continuous variable

Kess\_t15 – 2015 Kessler score, continuous variable

Choice – job control

Bully - bullying

Time – time pressure

Duties – role clarity

Wellpca – first principal component of health and wellbeing practices

Wellpcas – Wellpca \* Wellpca

These are results for developing low distress in 2016 (i.e. recovery from high distress)

# Main effects

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.793725	0.073256	10.835	56 <0.001
WELLPCA, $\gamma_{01}$	-0.167877	0.070168	-2.392	56 0.020
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.027361	0.063667	0.430	1036 0.667
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.183660	0.100089	1.835	1036 0.067
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.074334	0.067184	-1.106	1036 0.269
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.136498	0.072338	-1.887	1036 0.059
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.265914	0.085556	3.108	1036 0.002
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	1.331429	0.164615	8.088	1036 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.793725	2.211619	(1.910, 2.561)
WELLPCA, $\gamma_{01}$	-0.167877	0.845458	(0.735, 0.973)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.027361	1.027739	(0.907, 1.165)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.183660	1.201607	(0.987, 1.462)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.074334	0.928362	(0.814, 1.059)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.136498	0.872408	(0.757, 1.006)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.265914	1.304623	(1.103, 1.543)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	1.331429	3.786451	(2.741, 5.231)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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			Error	d.f.	
For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.793725	0.060283	13.167	56	<0.001
WELLPCA, ?01	-0.167877	0.074709	-2.247	56	0.029
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	0.027361	0.053786	0.509	1036	0.611
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.183660	0.106842	1.719	1036	0.086
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.074334	0.056663	-1.312	1036	0.190
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	-0.136498	0.053497	-2.552	1036	0.011
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	0.265914	0.086951	3.058	1036	0.002
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	1.331429	0.157037	8.478	1036	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.793725	2.211619	(1.960, 2.496)		
WELLPCA, ?01	-0.167877	0.845458	(0.728, 0.982)		
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	0.027361	1.027739	(0.925, 1.142)		
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.183660	1.201607	(0.974, 1.482)		
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.074334	0.928362	(0.831, 1.038)		
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	-0.136498	0.872408	(0.785, 0.969)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	0.265914	1.304623	(1.100, 1.547)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	1.331429	3.786451	(2.782, 5.154)		
Final estimation of variance components					
Random Effect	Standard	Variance	df	Chi-square	p
	Deviation	Component			
INTRCPT1, u0	0.01631	0.00027	56	68.62298	0.120

# Curvilinear effects

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.731526	0.076504	9.562	55 <0.001
WELLPCA, $\gamma_{01}$	-0.184162	0.069709	-2.642	55 0.011
WELLPCAS, $\gamma_{02}$	-0.154170	0.059785	-2.579	55 0.013
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.036442	0.063973	0.570	1036 0.569
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.168854	0.100331	1.683	1036 0.093
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.080011	0.067336	-1.188	1036 0.235
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.137367	0.072544	-1.894	1036 0.059
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.263463	0.085702	3.074	1036 0.002
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	1.352508	0.166048	8.145	1036 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.731526	2.078249	(1.783, 2.423)
WELLPCA, $\gamma_{01}$	-0.184162	0.831801	(0.723, 0.957)
WELLPCAS, $\gamma_{02}$	-0.154170	0.857126	(0.760, 0.966)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.036442	1.037114	(0.915, 1.176)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.168854	1.183947	(0.972, 1.442)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.080011	0.923106	(0.809, 1.054)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.137367	0.871651	(0.756, 1.005)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.263463	1.301430	(1.100, 1.540)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	1.352508	3.867112	(2.791, 5.357)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.731526	0.070520	10.373	55	<0.001
WELLPCA, $\gamma_{01}$	-0.184162	0.065438	-2.814	55	0.007
WELLPCAS, $\gamma_{02}$	-0.154170	0.060380	-2.553	55	0.013
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.036442	0.053301	0.684	1036	0.494
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.168854	0.102984	1.640	1036	0.101
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.080011	0.056859	-1.407	1036	0.160
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.137367	0.052693	-2.607	1036	0.009
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.263463	0.087501	3.011	1036	0.003
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.352508	0.160791	8.412	1036	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.731526	2.078249	(1.804, 2.394)		
WELLPCA, $\gamma_{01}$	-0.184162	0.831801	(0.730, 0.948)		
WELLPCAS, $\gamma_{02}$	-0.154170	0.857126	(0.759, 0.967)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.036442	1.037114	(0.934, 1.152)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.168854	1.183947	(0.967, 1.449)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.080011	0.923106	(0.826, 1.032)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.137367	0.871651	(0.786, 0.967)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.263463	1.301430	(1.096, 1.545)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.352508	3.867112	(2.820, 5.302)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.01789	0.00032	55	62.26207	0.233

Choice interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p	d.f.
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.794484	0.073213	10.852	56	<0.001
WELLPCA, $\gamma_{01}$	-0.167655	0.070132	-2.391	56	0.020
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.044565	0.068810	0.648	56	0.520
WELLPCA, $\gamma_{11}$	0.036630	0.071208	0.514	56	0.609
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.185083	0.099931	1.852	979	0.064
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.074120	0.067026	-1.106	979	0.269
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.139986	0.072313	-1.936	979	0.053
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.265807	0.085552	3.107	979	0.002
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.332734	0.164734	8.090	979	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.794484	2.213298	(1.911, 2.563)
WELLPCA, $\gamma_{01}$	-0.167655	0.845646	(0.735, 0.973)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.044565	1.045573	(0.911, 1.200)
WELLPCA, $\gamma_{11}$	0.036630	1.037309	(0.899, 1.196)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.185083	1.203319	(0.989, 1.464)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.074120	0.928560	(0.814, 1.059)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.139986	0.869371	(0.754, 1.002)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.265807	1.304483	(1.103, 1.543)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	1.332734	3.791397	(2.744, 5.239)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)					
Fixed Effect	Coefficient	Standard Error	t	Approx.p	d.f.
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.794484	0.060252	13.186	56	<0.001
WELLPCA, $\gamma_{01}$	-0.167655	0.074051	-2.264	56	0.027
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.044565	0.059598	0.748	56	0.458
WELLPCA, $\gamma_{11}$	0.036630	0.058980	0.621	56	0.537
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.185083	0.106898	1.731	979	0.084
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.074120	0.057522	-1.289	979	0.198
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.139986	0.053081	-2.637	979	0.008
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.265807	0.086939	3.057	979	0.002
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.332734	0.157061	8.485	979	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.794484	2.213298	(1.962, 2.497)		
WELLPCA, $\gamma_{01}$	-0.167655	0.845646	(0.729, 0.981)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.044565	1.045573	(0.928, 1.178)		
WELLPCA, $\gamma_{11}$	0.036630	1.037309	(0.922, 1.167)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.185083	1.203319	(0.976, 1.484)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.074120	0.928560	(0.829, 1.040)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.139986	0.869371	(0.783, 0.965)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.265807	1.304483	(1.100, 1.547)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.332734	3.791397	(2.785, 5.161)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.00776	0.00006	53	65.27129	0.120
CHOICE slope, $u_1$	0.01058	0.00011	53	50.95174	>0.500



# Bully interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.797673	0.073983	10.782 56	<0.001
WELLPCA, $\gamma_{01}$	-0.175129	0.071081	-2.464 56	0.017
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.024326	0.063621	0.382 979	0.702
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.237053	0.112841	2.101 56	0.040
WELLPCA, $\gamma_{21}$	-0.189065	0.118850	-1.591 56	0.117
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.069261	0.067160	-1.031 979	0.303
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.140375	0.072276	-1.942 979	0.052
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.264618	0.085754	3.086 979	0.002
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	1.328184	0.164314	8.083 979	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.797673	2.220367	(1.914, 2.575)
WELLPCA, $\gamma_{01}$	-0.175129	0.839349	(0.728, 0.968)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.024326	1.024624	(0.904, 1.161)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.237053	1.267509	(1.011, 1.589)
WELLPCA, $\gamma_{21}$	-0.189065	0.827733	(0.652, 1.050)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.069261	0.933083	(0.818, 1.065)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.140375	0.869032	(0.754, 1.002)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.264618	1.302934	(1.101, 1.542)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	1.328184	3.774183	(2.734, 5.211)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.797673	0.063023	12.657	56	<0.001
WELLPCA, $\gamma_{01}$	-0.175129	0.076077	-2.302	56	0.025
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.024326	0.054896	0.443	979	0.658
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.237053	0.093896	2.525	56	0.014
WELLPCA, $\gamma_{21}$	-0.189065	0.101311	-1.866	56	0.067
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.069261	0.055981	-1.237	979	0.216
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.140375	0.053343	-2.632	979	0.009
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.264618	0.085615	3.091	979	0.002
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.328184	0.155914	8.519	979	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.797673	2.220367	(1.957, 2.519)		
WELLPCA, $\gamma_{01}$	-0.175129	0.839349	(0.721, 0.978)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.024326	1.024624	(0.920, 1.141)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.237053	1.267509	(1.050, 1.530)		
WELLPCA, $\gamma_{21}$	-0.189065	0.827733	(0.676, 1.014)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.069261	0.933083	(0.836, 1.041)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.140375	0.869032	(0.783, 0.965)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.264618	1.302934	(1.101, 1.541)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.328184	3.774183	(2.779, 5.126)		
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.02874	0.00083	49	57.80993	0.182
BULLY slope, $u_2$	0.04223	0.00178	49	44.76029	>0.500

Time interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.793428	0.073281	10.827	56 <0.001
WELLPCA, $\gamma_{01}$	-0.172700	0.070159	-2.462	56 0.017
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.031288	0.063476	0.493	979 0.622
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.176280	0.099743	1.767	979 0.077
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.053212	0.072094	-0.738	56 0.464
WELLPCA, $\gamma_{31}$	0.005522	0.069417	0.080	56 0.937
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.130057	0.071933	-1.808	979 0.071
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.260138	0.085183	3.054	979 0.002
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	1.330609	0.164630	8.082	979 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.793428	2.210963	(1.909, 2.561)
WELLPCA, $\gamma_{01}$	-0.172700	0.841390	(0.731, 0.968)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.031288	1.031783	(0.911, 1.169)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.176280	1.192772	(0.981, 1.451)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.053212	0.948179	(0.821, 1.096)
WELLPCA, $\gamma_{31}$	0.005522	1.005538	(0.875, 1.156)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.130057	0.878045	(0.762, 1.011)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.260138	1.297110	(1.097, 1.533)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	1.330609	3.783348	(2.739, 5.227)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.793428	0.059746	13.280	56	<0.001
WELLPCA, $\gamma_{01}$	-0.172700	0.076543	-2.256	56	0.028
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.031288	0.054046	0.579	979	0.563
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.176280	0.106386	1.657	979	0.098
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.053212	0.057101	-0.932	56	0.355
WELLPCA, $\gamma_{31}$	0.005522	0.063317	0.087	56	0.931
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.130057	0.053848	-2.415	979	0.016
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.260138	0.087156	2.985	979	0.003
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.330609	0.156262	8.515	979	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.793428	2.210963	(1.961, 2.492)		
WELLPCA, $\gamma_{01}$	-0.172700	0.841390	(0.722, 0.981)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.031288	1.031783	(0.928, 1.147)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.176280	1.192772	(0.968, 1.470)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.053212	0.948179	(0.846, 1.063)		
WELLPCA, $\gamma_{31}$	0.005522	1.005538	(0.886, 1.142)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.130057	0.878045	(0.790, 0.976)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.260138	1.297110	(1.093, 1.539)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	1.330609	3.783348	(2.784, 5.142)		
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.01966	0.00039	55	64.01487	0.190
TIME slope, $u_3$	0.02198	0.00048	55	56.02161	0.436

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.791673	0.073305	10.800	56 <0.001
WELLPCA, $\gamma_{01}$	-0.159618	0.070182	-2.274	56 0.027
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.024326	0.063585	0.383	979 0.702
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.192117	0.099865	1.924	979 0.055
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.067038	0.066959	-1.001	979 0.317
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.106721	0.078100	-1.366	56 0.177
WELLPCA, $\gamma_{41}$	-0.022672	0.078276	-0.290	56 0.773
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.269595	0.085522	3.152	979 0.002
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	1.336126	0.164668	8.114	979 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.791673	2.207085	(1.906, 2.556)
WELLPCA, $\gamma_{01}$	-0.159618	0.852469	(0.741, 0.981)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.024326	1.024624	(0.904, 1.161)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.192117	1.211812	(0.996, 1.474)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.067038	0.935160	(0.820, 1.067)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.106721	0.898776	(0.769, 1.051)
WELLPCA, $\gamma_{41}$	-0.022672	0.977583	(0.836, 1.144)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.269595	1.309434	(1.107, 1.549)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	1.336126	3.804277	(2.754, 5.256)

Final estimation of fixed effects  
(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.791673	0.061897	12.790	56 <0.001
WELLPCA, $\gamma_{01}$	-0.159618	0.076236	-2.094	56 0.041

For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	0.024326	0.053472	0.455	979	0.649
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.192117	0.107119	1.793	979	0.073
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.067038	0.055938	-1.198	979	0.231
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	-0.106721	0.058328	-1.830	56	0.073
WELLPCA, ?41	-0.022672	0.051938	-0.437	56	0.664
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	0.269595	0.086795	3.106	979	0.002
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	1.336126	0.157420	8.488	979	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.791673	2.207085	(1.950, 2.499)		
WELLPCA, ?01	-0.159618	0.852469	(0.732, 0.993)		
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	0.024326	1.024624	(0.923, 1.138)		
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.192117	1.211812	(0.982, 1.495)		
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.067038	0.935160	(0.838, 1.044)		
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	-0.106721	0.898776	(0.800, 1.010)		
WELLPCA, ?41	-0.022672	0.977583	(0.881, 1.085)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	0.269595	1.309434	(1.104, 1.553)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	1.336126	3.804277	(2.793, 5.182)		
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, u0	0.02144	0.00046	55	67.79429	0.115
DUTIES slope, u4	0.01594	0.00025	55	48.14812	>0.500

These are results for developing high distress in 2016

# Main effects

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.	
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439296	0.038324	-11.463	56	<0.001
WELLPCA, $\gamma_{01}$	-0.054957	0.038755	-1.418	56	0.162
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.011675	0.035615	0.328	1036	0.743
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.037461	0.048138	0.778	1036	0.437
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.020118	0.037026	-0.543	1036	0.587
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.043021	0.038129	-1.128	1036	0.259
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068391	0.045290	1.510	1036	0.131
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.283659	0.063150	4.492	1036	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.439296	0.644490	(0.597, 0.696)
WELLPCA, $\gamma_{01}$	-0.054957	0.946525	(0.876, 1.023)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.011675	1.011743	(0.943, 1.085)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.037461	1.038171	(0.945, 1.141)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.020118	0.980083	(0.911, 1.054)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.043021	0.957891	(0.889, 1.032)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.068391	1.070784	(0.980, 1.170)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.283659	1.327980	(1.173, 1.503)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439296	0.018566	-23.661	56	<0.001
WELLPCA, $\gamma_{01}$	-0.054957	0.023621	-2.327	56	0.024
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.011675	0.016440	0.710	1036	0.478
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.037461	0.028570	1.311	1036	0.190
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.020118	0.016788	-1.198	1036	0.231
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.043021	0.015883	-2.709	1036	0.007
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068391	0.023996	2.850	1036	0.004
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.283659	0.027900	10.167	1036	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
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For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.439296	0.644490	(0.621, 0.669)
WELLPCA, $\gamma_{01}$	-0.054957	0.946525	(0.903, 0.992)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.011675	1.011743	(0.980, 1.045)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.037461	1.038171	(0.982, 1.098)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.020118	0.980083	(0.948, 1.013)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.043021	0.957891	(0.928, 0.988)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.068391	1.070784	(1.022, 1.122)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.283659	1.327980	(1.257, 1.403)

Final estimation of variance components

Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.01172	0.00014	56	22.28645	>0.500



Curvilinear model

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.	
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.463209	0.041566	-11.144	55	<0.001
WELLPCA, $\gamma_{01}$	-0.070521	0.041287	-1.708	55	0.093
WELLPCAS, $\gamma_{02}$	-0.055835	0.034992	-1.596	55	0.116
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.013836	0.035561	0.389	1036	0.697
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.032602	0.048281	0.675	1036	0.500
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.020881	0.037063	-0.563	1036	0.573
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.043618	0.038146	-1.143	1036	0.253
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.069239	0.045415	1.525	1036	0.128
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.285543	0.063063	4.528	1036	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.463209	0.629261	(0.579, 0.684)
WELLPCA, $\gamma_{01}$	-0.070521	0.931908	(0.858, 1.012)
WELLPCAS, $\gamma_{02}$	-0.055835	0.945695	(0.882, 1.014)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.013836	1.013933	(0.946, 1.087)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.032602	1.033139	(0.940, 1.136)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.020881	0.979336	(0.911, 1.053)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.043618	0.957320	(0.888, 1.032)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.069239	1.071692	(0.980, 1.172)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.285543	1.330484	(1.176, 1.506)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-0.463209	0.022723	-20.385	55	<0.001	
WELLPCA, $\gamma_{01}$	-0.070521	0.025992	-2.713	55	0.009	
WELLPCAS, $\gamma_{02}$	-0.055835	0.022919	-2.436	55	0.018	
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	0.013836	0.016187	0.855	1036	0.393	
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.032602	0.027298	1.194	1036	0.233	
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.020881	0.016421	-1.272	1036	0.204	
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.043618	0.015602	-2.796	1036	0.005	
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	0.069239	0.023933	2.893	1036	0.004	
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.285543	0.028639	9.971	1036	<0.001	
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval			
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-0.463209	0.629261	(0.601, 0.659)			
WELLPCA, $\gamma_{01}$	-0.070521	0.931908	(0.885, 0.982)			
WELLPCAS, $\gamma_{02}$	-0.055835	0.945695	(0.903, 0.990)			
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	0.013836	1.013933	(0.982, 1.047)			
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.032602	1.033139	(0.979, 1.090)			
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.020881	0.979336	(0.948, 1.011)			
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.043618	0.957320	(0.928, 0.987)			
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	0.069239	1.071692	(1.023, 1.123)			
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.285543	1.330484	(1.258, 1.407)			
Final estimation of variance components						
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p	
INTRCPT1, $u_0$	0.00941	0.00009	55	20.70177	>0.500	

Choice interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p	d.f.
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439508	0.038222	-11.499	56	<0.001
WELLPCA, $\gamma_{01}$	-0.054099	0.038587	-1.402	56	0.166
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.019485	0.037256	0.523	56	0.603
WELLPCA, $\gamma_{11}$	0.006134	0.037623	0.163	56	0.871
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.038525	0.048088	0.801	979	0.423
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.019828	0.036920	-0.537	979	0.591
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.043650	0.038162	-1.144	979	0.253
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068422	0.045261	1.512	979	0.131
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.284340	0.063207	4.499	979	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.439508	0.644354	(0.597, 0.696)
WELLPCA, $\gamma_{01}$	-0.054099	0.947338	(0.877, 1.024)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.019485	1.019676	(0.946, 1.099)
WELLPCA, $\gamma_{11}$	0.006134	1.006153	(0.933, 1.085)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.038525	1.039277	(0.946, 1.142)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.019828	0.980367	(0.912, 1.054)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.043650	0.957289	(0.888, 1.032)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.068422	1.070817	(0.980, 1.170)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.284340	1.328884	(1.174, 1.504)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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			Error	d.f.		
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-0.439508	0.018247	-24.087	56	<0.001	
WELLPCA, $\gamma_{01}$	-0.054099	0.023483	-2.304	56	0.025	
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	0.019485	0.016768	1.162	56	0.250	
WELLPCA, $\gamma_{11}$	0.006134	0.016914	0.363	56	0.718	
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.038525	0.028783	1.338	979	0.181	
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.019828	0.017051	-1.163	979	0.245	
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.043650	0.015910	-2.744	979	0.006	
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	0.068422	0.023913	2.861	979	0.004	
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.284340	0.027657	10.281	979	<0.001	
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval			
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-0.439508	0.644354	(0.621, 0.668)			
WELLPCA, $\gamma_{01}$	-0.054099	0.947338	(0.904, 0.993)			
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	0.019485	1.019676	(0.986, 1.055)			
WELLPCA, $\gamma_{11}$	0.006134	1.006153	(0.973, 1.041)			
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.038525	1.039277	(0.982, 1.100)			
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.019828	0.980367	(0.948, 1.014)			
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.043650	0.957289	(0.928, 0.988)			
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	0.068422	1.070817	(1.022, 1.122)			
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.284340	1.328884	(1.259, 1.403)			
Final estimation of variance components						
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p	
INTRCPT1, $u_0$	0.00448	0.00002	53	21.26146	>0.500	
CHOICE slope, $u_1$	0.00441	0.00002	53	17.58960	>0.500	

Bully interaction

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-0.439785	0.038269	-11.492 56	<0.001
WELLPCA, $\gamma_{01}$	-0.052319	0.038680	-1.353 56	0.182
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.010840	0.035536	0.305 979	0.760
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.038833	0.050308	0.772 56	0.443
WELLPCA, $\gamma_{21}$	-0.034001	0.051380	-0.662 56	0.511
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.018914	0.036905	-0.513 979	0.608
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.043369	0.038000	-1.141 979	0.254
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.068627	0.045274	1.516 979	0.130
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.284987	0.063313	4.501 979	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.439785	0.644175	(0.597, 0.696)
WELLPCA, $\gamma_{01}$	-0.052319	0.949026	(0.878, 1.026)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.010840	1.010899	(0.943, 1.084)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.038833	1.039597	(0.940, 1.150)
WELLPCA, $\gamma_{21}$	-0.034001	0.966571	(0.872, 1.071)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.018914	0.981263	(0.913, 1.055)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.043369	0.957558	(0.889, 1.032)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.068627	1.071037	(0.980, 1.171)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.284987	1.329745	(1.174, 1.506)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439785	0.018942	-23.217	56	<0.001
WELLPCA, $\gamma_{01}$	-0.052319	0.023903	-2.189	56	0.033
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.010840	0.016757	0.647	979	0.518
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.038833	0.022556	1.722	56	0.091
WELLPCA, $\gamma_{21}$	-0.034001	0.023855	-1.425	56	0.160
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.018914	0.016671	-1.135	979	0.257
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.043369	0.015968	-2.716	979	0.007
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068627	0.023847	2.878	979	0.004
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.284987	0.028429	10.024	979	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439785	0.644175	(0.620, 0.669)		
WELLPCA, $\gamma_{01}$	-0.052319	0.949026	(0.905, 0.996)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.010840	1.010899	(0.978, 1.045)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.038833	1.039597	(0.994, 1.088)		
WELLPCA, $\gamma_{21}$	-0.034001	0.966571	(0.921, 1.014)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.018914	0.981263	(0.950, 1.014)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.043369	0.957558	(0.928, 0.988)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068627	1.071037	(1.022, 1.122)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.284987	1.329745	(1.258, 1.406)		
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.00748	0.00006	49	22.17320	>0.500
BULLY slope, $u_2$	0.00988	0.00010	49	16.30252	>0.500

Time pressure interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-0.438945	0.038229	-11.482	56 <0.001
WELLPCA, $\gamma_{01}$	-0.056517	0.038652	-1.462	56 0.149
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.012688	0.035496	0.357	979 0.721
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.035857	0.048020	0.747	979 0.455
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.015935	0.038809	-0.411	56 0.683
WELLPCA, $\gamma_{31}$	0.006279	0.036297	0.173	56 0.863
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.041694	0.038006	-1.097	979 0.273
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.067282	0.045184	1.489	979 0.137
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.284073	0.063199	4.495	979 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.438945	0.644716	(0.597, 0.696)
WELLPCA, $\gamma_{01}$	-0.056517	0.945051	(0.875, 1.021)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.012688	1.012768	(0.945, 1.086)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.035857	1.036508	(0.943, 1.139)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.015935	0.984191	(0.911, 1.064)
WELLPCA, $\gamma_{31}$	0.006279	1.006299	(0.936, 1.082)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.041694	0.959163	(0.890, 1.033)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.067282	1.069597	(0.979, 1.169)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.284073	1.328530	(1.174, 1.504)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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		Error	d.f.			
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-0.438945	0.018378	-23.885	56	<0.001	
WELLPCA, $\gamma_{01}$	-0.056517	0.023812	-2.373	56	0.021	
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	0.012688	0.016541	0.767	979	0.443	
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.035857	0.028626	1.253	979	0.211	
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.015935	0.016620	-0.959	56	0.342	
WELLPCA, $\gamma_{31}$	0.006279	0.018193	0.345	56	0.731	
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.041694	0.016009	-2.604	979	0.009	
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	0.067282	0.024095	2.792	979	0.005	
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.284073	0.027914	10.177	979	<0.001	
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval			
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-0.438945	0.644716	(0.621, 0.669)			
WELLPCA, $\gamma_{01}$	-0.056517	0.945051	(0.901, 0.991)			
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	0.012688	1.012768	(0.980, 1.046)			
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.035857	1.036508	(0.980, 1.096)			
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.015935	0.984191	(0.952, 1.018)			
WELLPCA, $\gamma_{31}$	0.006279	1.006299	(0.970, 1.044)			
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.041694	0.959163	(0.929, 0.990)			
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	0.067282	1.069597	(1.020, 1.121)			
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.284073	1.328530	(1.258, 1.403)			
Final estimation of variance components						
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p	
INTRCPT1, $u_0$	0.00705	0.00005	55	23.58446	>0.500	
TIME slope, $u_3$	0.00687	0.00005	55	21.17111	>0.500	



# Role clarity interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-0.439201	0.038214	-11.493 56	<0.001
WELLPCA, $\gamma_{01}$	-0.053449	0.038707	-1.381 56	0.173
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	0.011212	0.035596	0.315 979	0.753
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.040498	0.047993	0.844 979	0.399
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.017309	0.036868	-0.469 979	0.639
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.033206	0.040132	-0.827 56	0.412
WELLPCA, $\gamma_{41}$	-0.012441	0.039523	-0.315 56	0.754
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	0.068829	0.045296	1.520 979	0.129
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.284636	0.063124	4.509 979	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-0.439201	0.644551	(0.597, 0.696)
WELLPCA, $\gamma_{01}$	-0.053449	0.947955	(0.877, 1.024)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	0.011212	1.011275	(0.943, 1.084)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.040498	1.041329	(0.948, 1.144)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.017309	0.982840	(0.914, 1.057)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.033206	0.967339	(0.893, 1.048)
WELLPCA, $\gamma_{41}$	-0.012441	0.987636	(0.912, 1.069)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	0.068829	1.071253	(0.980, 1.171)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.284636	1.329278	(1.174, 1.505)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439201	0.018733	-23.445	56	<0.001
WELLPCA, $\gamma_{01}$	-0.053449	0.024371	-2.193	56	0.032
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.011212	0.016426	0.683	979	0.495
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.040498	0.028715	1.410	979	0.159
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.017309	0.016606	-1.042	979	0.298
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.033206	0.015696	-2.116	56	0.039
WELLPCA, $\gamma_{41}$	-0.012441	0.014394	-0.864	56	0.391
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068829	0.024044	2.863	979	0.004
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.284636	0.027885	10.207	979	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-0.439201	0.644551	(0.621, 0.669)		
WELLPCA, $\gamma_{01}$	-0.053449	0.947955	(0.903, 0.995)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	0.011212	1.011275	(0.979, 1.044)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.040498	1.041329	(0.984, 1.102)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.017309	0.982840	(0.951, 1.015)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.033206	0.967339	(0.937, 0.998)		
WELLPCA, $\gamma_{41}$	-0.012441	0.987636	(0.960, 1.017)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	0.068829	1.071253	(1.022, 1.123)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.284636	1.329278	(1.258, 1.404)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.00500	0.00002	55	23.53751	>0.500
DUTIES slope, $u_4$	0.00483	0.00002	55	16.18731	>0.500

These are results for developing good physical health in 2016 (i.e., recovery from poor health)

# Main effects

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p	d.f.
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.639086	0.061739	10.351	55	<0.001
WELLPCA, $\gamma_{01}$	-0.080109	0.059338	-1.350	55	0.183
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.080533	0.053473	-1.506	1307	0.132
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.096909	0.093134	1.041	1307	0.298
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.001167	0.056950	-0.020	1307	0.984
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.041389	0.063012	0.657	1307	0.511
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.455259	0.224263	6.489	1307	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.273112	0.086984	3.140	1307	0.002

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.639086	1.894747	(1.674, 2.144)
WELLPCA, $\gamma_{01}$	-0.080109	0.923016	(0.819, 1.040)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.080533	0.922625	(0.831, 1.025)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.096909	1.101760	(0.918, 1.323)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.001167	0.998834	(0.893, 1.117)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	0.041389	1.042258	(0.921, 1.179)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.455259	4.285594	(2.760, 6.654)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.273112	1.314048	(1.108, 1.559)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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		Error	d.f.		
For	INTRCPT1, $\beta_0$				
	INTRCPT2, ?00	0.639086	0.054259	11.778 55	<0.001
	WELLPCA, ?01	-0.080109	0.046224	-1.733 55	0.089
For	CHOICE slope, $\beta_1$				
	INTRCPT2, ?10	-0.080533	0.036071	-2.233 1307	0.026
For	BULLY slope, $\beta_2$				
	INTRCPT2, ?20	0.096909	0.090387	1.072 1307	0.284
For	TIME slope, $\beta_3$				
	INTRCPT2, ?30	-0.001167	0.058883	-0.020 1307	0.984
For	DUTIES slope, $\beta_4$				
	INTRCPT2, ?40	0.041389	0.045816	0.903 1307	0.366
For	PHYCON15 slope, $\beta_5$				
	INTRCPT2, ?50	1.455259	0.257053	5.661 1307	<0.001
For	KESCON15 slope, $\beta_6$				
	INTRCPT2, ?60	0.273112	0.079758	3.424 1307	<0.001
Fixed Effect		Coefficient	Odds Ratio	Confidence Interval	
For	INTRCPT1, $\beta_0$				
	INTRCPT2, ?00	0.639086	1.894747	(1.699, 2.113)	
	WELLPCA, ?01	-0.080109	0.923016	(0.841, 1.013)	
For	CHOICE slope, $\beta_1$				
	INTRCPT2, ?10	-0.080533	0.922625	(0.860, 0.990)	
For	BULLY slope, $\beta_2$				
	INTRCPT2, ?20	0.096909	1.101760	(0.923, 1.316)	
For	TIME slope, $\beta_3$				
	INTRCPT2, ?30	-0.001167	0.998834	(0.890, 1.121)	
For	DUTIES slope, $\beta_4$				
	INTRCPT2, ?40	0.041389	1.042258	(0.953, 1.140)	
For	PHYCON15 slope, $\beta_5$				
	INTRCPT2, ?50	1.455259	4.285594	(2.588, 7.096)	
For	KESCON15 slope, $\beta_6$				
	INTRCPT2, ?60	0.273112	1.314048	(1.124, 1.537)	
Final estimation of variance components					
Random Effect	Standard	Variance	df	Chi-square	p
	Deviation	Component			
INTRCPT1, u0	0.02612	0.00068	55	43.80595	>0.500

Curvilinear model

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.625949	0.064528	9.700	54 <0.001
WELLPCA, $\gamma_{01}$	-0.093895	0.062925	-1.492	54 0.141
WELLPCAS, $\gamma_{02}$	-0.033137	0.052082	-0.636	54 0.527
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.077760	0.053652	-1.449	1307 0.147
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.095324	0.093129	1.024	1307 0.306
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.002537	0.056977	-0.045	1307 0.964
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	0.039852	0.063046	0.632	1307 0.527
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.455084	0.224254	6.489	1307 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.273619	0.087010	3.145	1307 0.002

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.625949	1.870020	(1.643, 2.128)
WELLPCA, $\gamma_{01}$	-0.093895	0.910379	(0.802, 1.033)
WELLPCAS, $\gamma_{02}$	-0.033137	0.967406	(0.871, 1.074)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.077760	0.925186	(0.833, 1.028)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.095324	1.100016	(0.916, 1.321)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.002537	0.997466	(0.892, 1.115)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	0.039852	1.040657	(0.920, 1.178)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.455084	4.284842	(2.760, 6.653)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.273619	1.314713	(1.108, 1.559)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.625949	0.055226	11.334	54	<0.001
WELLPCA, ?01	-0.093895	0.056001	-1.677	54	0.099
WELLPCAS, ?02	-0.033137	0.052434	-0.632	54	0.530
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	-0.077760	0.037029	-2.100	1307	0.036
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.095324	0.090130	1.058	1307	0.290
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.002537	0.059481	-0.043	1307	0.966
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	0.039852	0.046559	0.856	1307	0.392
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	1.455084	0.256864	5.665	1307	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	0.273619	0.080187	3.412	1307	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.625949	1.870020	(1.674, 2.089)		
WELLPCA, ?01	-0.093895	0.910379	(0.814, 1.019)		
WELLPCAS, ?02	-0.033137	0.967406	(0.871, 1.075)		
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	-0.077760	0.925186	(0.860, 0.995)		
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.095324	1.100016	(0.922, 1.313)		
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.002537	0.997466	(0.888, 1.121)		
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	0.039852	1.040657	(0.950, 1.140)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	1.455084	4.284842	(2.589, 7.093)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	0.273619	1.314713	(1.123, 1.539)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.01407	0.00020	54	43.26008	>0.500

Control interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.639142	0.061627	10.371	55 <0.001
WELLPCA, $\gamma_{01}$	-0.081898	0.059409	-1.379	55 0.174
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.071572	0.055788	-1.283	55 0.205
WELLPCA, $\gamma_{11}$	0.042324	0.056987	0.743	55 0.461
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.104282	0.092847	1.123	1251 0.262
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	0.000149	0.056895	0.003	1251 0.998
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	0.038500	0.063066	0.610	1251 0.542
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.456789	0.224199	6.498	1251 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.272105	0.086992	3.128	1251 0.002

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.639142	1.894854	(1.675, 2.144)
WELLPCA, $\gamma_{01}$	-0.081898	0.921366	(0.818, 1.038)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.071572	0.930929	(0.832, 1.041)
WELLPCA, $\gamma_{11}$	0.042324	1.043232	(0.931, 1.170)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.104282	1.109914	(0.925, 1.332)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	0.000149	1.000149	(0.895, 1.118)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	0.038500	1.039251	(0.918, 1.176)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.456789	4.292156	(2.765, 6.664)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.272105	1.312725	(1.107, 1.557)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.639142	0.053871	11.864	55	<0.001
WELLPCA, $\gamma_{01}$	-0.081898	0.046850	-1.748	55	0.086
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.071572	0.039189	-1.826	55	0.073
WELLPCA, $\gamma_{11}$	0.042324	0.041014	1.032	55	0.307
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.104282	0.090467	1.153	1251	0.249
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	0.000149	0.059335	0.003	1251	0.998
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.038500	0.045808	0.840	1251	0.401
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.456789	0.258775	5.630	1251	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.272105	0.079817	3.409	1251	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.639142	1.894854	(1.701, 2.111)		
WELLPCA, $\gamma_{01}$	-0.081898	0.921366	(0.839, 1.012)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.071572	0.930929	(0.861, 1.007)		
WELLPCA, $\gamma_{11}$	0.042324	1.043232	(0.961, 1.133)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.104282	1.109914	(0.929, 1.325)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	0.000149	1.000149	(0.890, 1.124)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.038500	1.039251	(0.950, 1.137)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.456789	4.292156	(2.583, 7.131)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.272105	1.312725	(1.122, 1.535)		
Final estimation of variance components					
Random Effect	Standard	Variance	df	Chi-square	p
	Deviation	Component			
INTRCPT1, $u_0$	0.02070	0.00043	55	44.19242	>0.500
CHOICE slope, $u_1$	0.01544	0.00024	55	55.99530	0.437



# Bullying interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.641307	0.061820	10.374	55 <0.001
WELLPCA, $\gamma_{01}$	-0.081199	0.059514	-1.364	55 0.178
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.083734	0.053386	-1.568	1251 0.117
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.104842	0.103532	1.013	55 0.316
WELLPCA, $\gamma_{21}$	-0.117709	0.105856	-1.112	55 0.271
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	0.000212	0.056950	0.004	1251 0.997
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	0.036860	0.063051	0.585	1251 0.559
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.452381	0.224390	6.473	1251 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.273836	0.087081	3.145	1251 0.002

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.641307	1.898961	(1.678, 2.150)
WELLPCA, $\gamma_{01}$	-0.081199	0.922010	(0.818, 1.039)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.083734	0.919676	(0.828, 1.021)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.104842	1.110535	(0.902, 1.367)
WELLPCA, $\gamma_{21}$	-0.117709	0.888955	(0.719, 1.099)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	0.000212	1.000212	(0.894, 1.118)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	0.036860	1.037547	(0.917, 1.174)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.452381	4.273277	(2.751, 6.637)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.273836	1.315000	(1.108, 1.560)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.641307	0.053553	11.975	55	<0.001
WELLPCA, $\gamma_{01}$	-0.081199	0.046410	-1.750	55	0.086
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.083734	0.036948	-2.266	1251	0.024
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.104842	0.104828	1.000	55	0.322
WELLPCA, $\gamma_{21}$	-0.117709	0.099507	-1.183	55	0.242
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	0.000212	0.058107	0.004	1251	0.997
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.036860	0.045416	0.812	1251	0.417
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.452381	0.255456	5.685	1251	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.273836	0.081875	3.345	1251	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.641307	1.898961	(1.706, 2.114)		
WELLPCA, $\gamma_{01}$	-0.081199	0.922010	(0.840, 1.012)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.083734	0.919676	(0.855, 0.989)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.104842	1.110535	(0.900, 1.370)		
WELLPCA, $\gamma_{21}$	-0.117709	0.888955	(0.728, 1.085)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	0.000212	1.000212	(0.892, 1.121)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.036860	1.037547	(0.949, 1.134)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.452381	4.273277	(2.589, 7.054)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.273836	1.315000	(1.120, 1.544)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.02629	0.00069	44	30.16969	>0.500
BULLY slope, $u_2$	0.07368	0.00543	44	51.50461	0.204

This is time pressure interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.645305	0.062168	10.380	55 <0.001
WELLPCA, $\gamma_{01}$	-0.077801	0.059623	-1.305	55 0.197
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.079381	0.053543	-1.483	1251 0.138
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.097628	0.093232	1.047	1251 0.295
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.026786	0.064062	-0.418	55 0.677
WELLPCA, $\gamma_{31}$	0.014480	0.058533	0.247	55 0.806
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	0.039622	0.063161	0.627	1251 0.531
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.460550	0.224621	6.502	1251 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.276827	0.087210	3.174	1251 0.002

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.645305	1.906568	(1.683, 2.160)
WELLPCA, $\gamma_{01}$	-0.077801	0.925148	(0.821, 1.043)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.079381	0.923688	(0.832, 1.026)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.097628	1.102552	(0.918, 1.324)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.026786	0.973569	(0.856, 1.107)
WELLPCA, $\gamma_{31}$	0.014480	1.014585	(0.902, 1.141)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	0.039622	1.040418	(0.919, 1.178)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.460550	4.308327	(2.773, 6.694)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.276827	1.318938	(1.112, 1.565)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.645305	0.053360	12.093	55	<0.001
WELLPCA, ?01	-0.077801	0.046016	-1.691	55	0.097
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	-0.079381	0.036761	-2.159	1251	0.031
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.097628	0.091058	1.072	1251	0.284
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.026786	0.060419	-0.443	55	0.659
WELLPCA, ?31	0.014480	0.060829	0.238	55	0.813
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	0.039622	0.046157	0.858	1251	0.391
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	1.460550	0.252619	5.782	1251	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	0.276827	0.081181	3.410	1251	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, ?00	0.645305	1.906568	(1.713, 2.122)		
WELLPCA, ?01	-0.077801	0.925148	(0.844, 1.015)		
For CHOICE slope, $\beta_1$					
INTRCPT2, ?10	-0.079381	0.923688	(0.859, 0.993)		
For BULLY slope, $\beta_2$					
INTRCPT2, ?20	0.097628	1.102552	(0.922, 1.318)		
For TIME slope, $\beta_3$					
INTRCPT2, ?30	-0.026786	0.973569	(0.862, 1.099)		
WELLPCA, ?31	0.014480	1.014585	(0.898, 1.146)		
For DUTIES slope, $\beta_4$					
INTRCPT2, ?40	0.039622	1.040418	(0.950, 1.139)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, ?50	1.460550	4.308327	(2.625, 7.072)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, ?60	0.276827	1.318938	(1.125, 1.547)		
Random Effect	Standard	Variance	df	Chi-square	p
	Deviation	Component			
INTRCPT1, u0	0.03956	0.00156	54	42.30932	>0.500
TIME slope, u3	0.10000	0.01000	54	51.57999	>0.500

This is role clarity interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	0.639551	0.061604	10.382	55 <0.001
WELLPCA, $\gamma_{01}$	-0.081219	0.059247	-1.371	55 0.176
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.082029	0.053531	-1.532	1251 0.126
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.097192	0.093217	1.043	1251 0.297
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	0.003058	0.056988	0.054	1251 0.957
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	0.075186	0.065101	1.155	55 0.253
WELLPCA, $\gamma_{41}$	-0.031686	0.062252	-0.509	55 0.613
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.454278	0.224383	6.481	1251 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.280522	0.086939	3.227	1251 0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	0.639551	1.895629	(1.675, 2.145)
WELLPCA, $\gamma_{01}$	-0.081219	0.921992	(0.819, 1.038)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.082029	0.921245	(0.829, 1.023)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.097192	1.102072	(0.918, 1.323)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	0.003058	1.003063	(0.897, 1.122)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	0.075186	1.078085	(0.946, 1.228)
WELLPCA, $\gamma_{41}$	-0.031686	0.968810	(0.855, 1.098)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.454278	4.281392	(2.757, 6.649)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.280522	1.323821	(1.116, 1.570)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.639551	0.054533	11.728	55	<0.001
WELLPCA, $\gamma_{01}$	-0.081219	0.045707	-1.777	55	0.081
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.082029	0.035933	-2.283	1251	0.023
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.097192	0.090384	1.075	1251	0.282
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	0.003058	0.058896	0.052	1251	0.959
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.075186	0.049374	1.523	55	0.134
WELLPCA, $\gamma_{41}$	-0.031686	0.041886	-0.756	55	0.453
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.454278	0.256964	5.659	1251	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.280522	0.079718	3.519	1251	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	0.639551	1.895629	(1.699, 2.115)		
WELLPCA, $\gamma_{01}$	-0.081219	0.921992	(0.841, 1.010)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.082029	0.921245	(0.859, 0.989)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.097192	1.102072	(0.923, 1.316)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	0.003058	1.003063	(0.894, 1.126)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	0.075186	1.078085	(0.976, 1.190)		
WELLPCA, $\gamma_{41}$	-0.031686	0.968810	(0.891, 1.054)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.454278	4.281392	(2.586, 7.088)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.280522	1.323821	(1.132, 1.548)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.01864	0.00035	55	45.06786	>0.500
DUTIES slope, $u_4$	0.01489	0.00022	55	59.34633	0.320

These are results for developing poor physical health in 2016 (i.e. recovery from high distress)

Linear model

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.	
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-2.415673	0.073632	-32.807	56	<0.001
WELLPCA, $\gamma_{01}$	-0.184605	0.055389	-3.333	56	0.002
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.121033	0.045653	-2.651	5005	0.008
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.063853	0.087589	0.729	5005	0.466
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.062788	0.048097	-1.305	5005	0.192
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.055760	0.050899	-1.096	5005	0.273
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	1.999662	0.161122	12.411	5005	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.421297	0.077476	5.438	5005	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.415673	0.089307	(0.077, 0.104)
WELLPCA, $\gamma_{01}$	-0.184605	0.831432	(0.744, 0.929)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.121033	0.886004	(0.810, 0.969)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.063853	1.065936	(0.898, 1.266)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.062788	0.939142	(0.855, 1.032)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.055760	0.945766	(0.856, 1.045)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.999662	7.386557	(5.386, 10.130)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.421297	1.523938	(1.309, 1.774)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard	t	Approx.p
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			Error	d.f.		
For	INTRCPT1, $\beta_0$					
	INTRCPT2, ?00	-2.415673	0.070058	-34.481	56	<0.001
	WELLPCA, ?01	-0.184605	0.039134	-4.717	56	<0.001
For	CHOICE slope, $\beta_1$					
	INTRCPT2, ?10	-0.121033	0.042661	-2.837	5005	0.005
For	BULLY slope, $\beta_2$					
	INTRCPT2, ?20	0.063853	0.123104	0.519	5005	0.604
For	TIME slope, $\beta_3$					
	INTRCPT2, ?30	-0.062788	0.035977	-1.745	5005	0.081
For	DUTIES slope, $\beta_4$					
	INTRCPT2, ?40	-0.055760	0.044387	-1.256	5005	0.209
For	PHYCON15 slope, $\beta_5$					
	INTRCPT2, ?50	1.999662	0.153428	13.033	5005	<0.001
For	KESCON15 slope, $\beta_6$					
	INTRCPT2, ?60	0.421297	0.062582	6.732	5005	<0.001
Fixed Effect		Coefficient	Odds Ratio	Confidence Interval		
For	INTRCPT1, $\beta_0$					
	INTRCPT2, ?00	-2.415673	0.089307	(0.078, 0.103)		
	WELLPCA, ?01	-0.184605	0.831432	(0.769, 0.899)		
For	CHOICE slope, $\beta_1$					
	INTRCPT2, ?10	-0.121033	0.886004	(0.815, 0.963)		
For	BULLY slope, $\beta_2$					
	INTRCPT2, ?20	0.063853	1.065936	(0.837, 1.357)		
For	TIME slope, $\beta_3$					
	INTRCPT2, ?30	-0.062788	0.939142	(0.875, 1.008)		
For	DUTIES slope, $\beta_4$					
	INTRCPT2, ?40	-0.055760	0.945766	(0.867, 1.032)		
For	PHYCON15 slope, $\beta_5$					
	INTRCPT2, ?50	1.999662	7.386557	(5.468, 9.978)		
For	KESCON15 slope, $\beta_6$					
	INTRCPT2, ?60	0.421297	1.523938	(1.348, 1.723)		
Final estimation of variance components						
Random Effect	Standard	Variance	df	Chi-square	p	
	Deviation	Component				
INTRCPT1, u0	0.18818	0.03541	56	67.75345	0.135	



This is curvilinear model

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-2.431661	0.074717	-32.545	55 <0.001
WELLPCA, $\gamma_{01}$	-0.204323	0.058709	-3.480	55 <0.001
WELLPCAS, $\gamma_{02}$	-0.066750	0.047356	-1.410	55 0.164
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.117841	0.045671	-2.580	5005 0.010
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.061323	0.087600	0.700	5005 0.484
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.064256	0.048123	-1.335	5005 0.182
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.055596	0.050889	-1.092	5005 0.275
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.995520	0.161148	12.383	5005 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.420519	0.077461	5.429	5005 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.431661	0.087891	(0.076, 0.102)
WELLPCA, $\gamma_{01}$	-0.204323	0.815199	(0.725, 0.917)
WELLPCAS, $\gamma_{02}$	-0.066750	0.935429	(0.851, 1.029)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.117841	0.888837	(0.813, 0.972)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.061323	1.063242	(0.896, 1.262)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.064256	0.937765	(0.853, 1.031)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.055596	0.945921	(0.856, 1.045)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.995520	7.356029	(5.364, 10.088)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.420519	1.522751	(1.308, 1.772)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p
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		Error	d.f.		
For	INTRCPT1, $\beta_0$				
	INTRCPT2, ?00	-2.431661	0.066103	-36.786 55	<0.001
	WELLPCA, ?01	-0.204323	0.043101	-4.741 55	<0.001
	WELLPCAS, ?02	-0.066750	0.043001	-1.552 55	0.126
For	CHOICE slope, $\beta_1$				
	INTRCPT2, ?10	-0.117841	0.043250	-2.725 5005	0.006
For	BULLY slope, $\beta_2$				
	INTRCPT2, ?20	0.061323	0.122698	0.500 5005	0.617
For	TIME slope, $\beta_3$				
	INTRCPT2, ?30	-0.064256	0.035719	-1.799 5005	0.072
For	DUTIES slope, $\beta_4$				
	INTRCPT2, ?40	-0.055596	0.044435	-1.251 5005	0.211
For	PHYCON15 slope, $\beta_5$				
	INTRCPT2, ?50	1.995520	0.153336	13.014 5005	<0.001
For	KESCON15 slope, $\beta_6$				
	INTRCPT2, ?60	0.420519	0.062839	6.692 5005	<0.001
Fixed Effect		Coefficient	Odds Ratio	Confidence Interval	
For	INTRCPT1, $\beta_0$				
	INTRCPT2, ?00	-2.431661	0.087891	(0.077, 0.100)	
	WELLPCA, ?01	-0.204323	0.815199	(0.748, 0.889)	
	WELLPCAS, ?02	-0.066750	0.935429	(0.858, 1.020)	
For	CHOICE slope, $\beta_1$				
	INTRCPT2, ?10	-0.117841	0.888837	(0.817, 0.967)	
For	BULLY slope, $\beta_2$				
	INTRCPT2, ?20	0.061323	1.063242	(0.836, 1.352)	
For	TIME slope, $\beta_3$				
	INTRCPT2, ?30	-0.064256	0.937765	(0.874, 1.006)	
For	DUTIES slope, $\beta_4$				
	INTRCPT2, ?40	-0.055596	0.945921	(0.867, 1.032)	
For	PHYCON15 slope, $\beta_5$				
	INTRCPT2, ?50	1.995520	7.356029	(5.447, 9.935)	
For	KESCON15 slope, $\beta_6$				
	INTRCPT2, ?60	0.420519	1.522751	(1.346, 1.722)	
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, u0	0.18578	0.03452	55	66.20465	0.143

Control interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-2.419984	0.075763	-31.941	56 <0.001
WELLPCA, $\gamma_{01}$	-0.175356	0.057703	-3.039	56 0.004
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.118805	0.048688	-2.440	56 0.018
WELLPCA, $\gamma_{11}$	0.068537	0.049009	1.398	56 0.167
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.063806	0.087652	0.728	4948 0.467
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.062339	0.048148	-1.295	4948 0.195
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.056625	0.051041	-1.109	4948 0.267
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	2.002902	0.161181	12.426	4948 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.423342	0.077612	5.455	4948 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.419984	0.088923	(0.076, 0.104)
WELLPCA, $\gamma_{01}$	-0.175356	0.839158	(0.748, 0.942)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.118805	0.887981	(0.805, 0.979)
WELLPCA, $\gamma_{11}$	0.068537	1.070940	(0.971, 1.181)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.063806	1.065885	(0.898, 1.266)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.062339	0.939564	(0.855, 1.033)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.056625	0.944948	(0.855, 1.044)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	2.002902	7.410534	(5.403, 10.164)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.423342	1.527056	(1.312, 1.778)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p
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		Error	d.f.		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-2.419984	0.071385	-33.900	56	<0.001
WELLPCA, $\gamma_{01}$	-0.175356	0.042197	-4.156	56	<0.001
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.118805	0.045119	-2.633	56	0.011
WELLPCA, $\gamma_{11}$	0.068537	0.047075	1.456	56	0.151
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.063806	0.124245	0.514	4948	0.608
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.062339	0.035956	-1.734	4948	0.083
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.056625	0.044417	-1.275	4948	0.202
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	2.002902	0.152885	13.101	4948	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.423342	0.063287	6.689	4948	<0.001
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval		
For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-2.419984	0.088923	(0.077, 0.103)		
WELLPCA, $\gamma_{01}$	-0.175356	0.839158	(0.771, 0.913)		
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.118805	0.887981	(0.811, 0.972)		
WELLPCA, $\gamma_{11}$	0.068537	1.070940	(0.975, 1.177)		
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.063806	1.065885	(0.836, 1.360)		
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.062339	0.939564	(0.876, 1.008)		
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.056625	0.944948	(0.866, 1.031)		
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	2.002902	7.410534	(5.492, 10.000)		
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.423342	1.527056	(1.349, 1.729)		
Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.21785	0.04746	56	71.61313	0.078
CHOICE slope, $u_1$	0.06746	0.00455	56	46.12938	>0.500

This is bullying interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-2.416783	0.070363	-34.347 56	<0.001
WELLPCA, $\gamma_{01}$	-0.186004	0.052287	-3.557 56	<0.001
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.122648	0.045617	-2.689 4948	0.007
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.052693	0.109281	0.482 56	0.632
WELLPCA, $\gamma_{21}$	-0.117058	0.113968	-1.027 56	0.309
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.064449	0.048064	-1.341 4948	0.180
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.053944	0.050797	-1.062 4948	0.288
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	2.003516	0.161230	12.426 4948	<0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.423353	0.077580	5.457 4948	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.416783	0.089208	(0.077, 0.103)
WELLPCA, $\gamma_{01}$	-0.186004	0.830270	(0.748, 0.922)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.122648	0.884575	(0.809, 0.967)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.052693	1.054106	(0.847, 1.312)
WELLPCA, $\gamma_{21}$	-0.117058	0.889534	(0.708, 1.118)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.064449	0.937584	(0.853, 1.030)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.053944	0.947485	(0.858, 1.047)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	2.003516	7.415079	(5.406, 10.171)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.423353	1.527073	(1.312, 1.778)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
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For INTRCPT1, $\beta_0$					
INTRCPT2, $\gamma_{00}$	-2.416783	0.068280	-35.395	56	<0.001
WELLPCA, $\gamma_{01}$	-0.186004	0.036921	-5.038	56	<0.001
For CHOICE slope, $\beta_1$					
INTRCPT2, $\gamma_{10}$	-0.122648	0.043165	-2.841	4948	0.005
For BULLY slope, $\beta_2$					
INTRCPT2, $\gamma_{20}$	0.052693	0.103558	0.509	56	0.613
WELLPCA, $\gamma_{21}$	-0.117058	0.101262	-1.156	56	0.253
For TIME slope, $\beta_3$					
INTRCPT2, $\gamma_{30}$	-0.064449	0.036609	-1.760	4948	0.078
For DUTIES slope, $\beta_4$					
INTRCPT2, $\gamma_{40}$	-0.053944	0.043889	-1.229	4948	0.219
For PHYCON15 slope, $\beta_5$					
INTRCPT2, $\gamma_{50}$	2.003516	0.154297	12.985	4948	<0.001
For KESCON15 slope, $\beta_6$					
INTRCPT2, $\gamma_{60}$	0.423353	0.062824	6.739	4948	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.416783	0.089208	(0.078, 0.102)
WELLPCA, $\gamma_{01}$	-0.186004	0.830270	(0.771, 0.894)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.122648	0.884575	(0.813, 0.963)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.052693	1.054106	(0.857, 1.297)
WELLPCA, $\gamma_{21}$	-0.117058	0.889534	(0.726, 1.090)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.064449	0.937584	(0.873, 1.007)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.053944	0.947485	(0.869, 1.033)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	2.003516	7.415079	(5.480, 10.034)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.423353	1.527073	(1.350, 1.727)

Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.14542	0.02115	55	68.03134	0.112
BULLY slope, $u_2$	0.28337	0.08030	55	63.07120	0.212

This is time pressure interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-2.412825	0.073743	-32.720	56 <0.001
WELLPCA, $\gamma_{01}$	-0.186473	0.055622	-3.352	56 0.001
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.120713	0.045668	-2.643	4948 0.008
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.060255	0.087615	0.688	4948 0.492
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.055536	0.049636	-1.119	56 0.268
WELLPCA, $\gamma_{31}$	-0.001038	0.049302	-0.021	56 0.983
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.054049	0.050890	-1.062	4948 0.288
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.998397	0.161108	12.404	4948 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.420129	0.077503	5.421	4948 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.412825	0.089562	(0.077, 0.104)
WELLPCA, $\gamma_{01}$	-0.186473	0.829881	(0.742, 0.928)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.120713	0.886288	(0.810, 0.969)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.060255	1.062108	(0.895, 1.261)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.055536	0.945978	(0.856, 1.045)
WELLPCA, $\gamma_{31}$	-0.001038	0.998963	(0.905, 1.103)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.054049	0.947386	(0.857, 1.047)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.998397	7.377220	(5.380, 10.117)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.420129	1.522158	(1.308, 1.772)

Final estimation of fixed effects

(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p
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			Error	d.f.		
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-2.412825	0.069505	-34.714	56	<0.001	
WELLPCA, $\gamma_{01}$	-0.186473	0.039647	-4.703	56	<0.001	
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	-0.120713	0.042736	-2.825	4948	0.005	
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.060255	0.123767	0.487	4948	0.626	
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.055536	0.035607	-1.560	56	0.124	
WELLPCA, $\gamma_{31}$	-0.001038	0.037323	-0.028	56	0.978	
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.054049	0.044336	-1.219	4948	0.223	
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	1.998397	0.153207	13.044	4948	<0.001	
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.420129	0.062326	6.741	4948	<0.001	
Fixed Effect	Coefficient	Odds Ratio	Confidence Interval			
For INTRCPT1, $\beta_0$						
INTRCPT2, $\gamma_{00}$	-2.412825	0.089562	(0.078, 0.103)			
WELLPCA, $\gamma_{01}$	-0.186473	0.829881	(0.766, 0.899)			
For CHOICE slope, $\beta_1$						
INTRCPT2, $\gamma_{10}$	-0.120713	0.886288	(0.815, 0.964)			
For BULLY slope, $\beta_2$						
INTRCPT2, $\gamma_{20}$	0.060255	1.062108	(0.833, 1.354)			
For TIME slope, $\beta_3$						
INTRCPT2, $\gamma_{30}$	-0.055536	0.945978	(0.881, 1.016)			
WELLPCA, $\gamma_{31}$	-0.001038	0.998963	(0.927, 1.077)			
For DUTIES slope, $\beta_4$						
INTRCPT2, $\gamma_{40}$	-0.054049	0.947386	(0.869, 1.033)			
For PHYCON15 slope, $\beta_5$						
INTRCPT2, $\gamma_{50}$	1.998397	7.377220	(5.464, 9.961)			
For KESCON15 slope, $\beta_6$						
INTRCPT2, $\gamma_{60}$	0.420129	1.522158	(1.347, 1.720)			
Final estimation of variance components						
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p	
INTRCPT1, $u_0$	0.19075	0.03639	56	66.28329	0.164	
TIME slope, $u_3$	0.01953	0.00038	56	41.44008	>0.500	



This is role clarity interaction

Final estimation of fixed effects: (Unit-specific model)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
or INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-2.416440	0.073361	-32.939	56 <0.001
WELLPCA, $\gamma_{01}$	-0.186411	0.055328	-3.369	56 0.001
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.121816	0.045624	-2.670	4948 0.008
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.065026	0.087570	0.743	4948 0.458
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.062211	0.048005	-1.296	4948 0.195
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.052388	0.051786	-1.012	56 0.316
WELLPCA, $\gamma_{41}$	-0.017049	0.051093	-0.334	56 0.740
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.999649	0.161125	12.411	4948 <0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.420544	0.077538	5.424	4948 <0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.416440	0.089239	(0.077, 0.103)
WELLPCA, $\gamma_{01}$	-0.186411	0.829933	(0.743, 0.927)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.121816	0.885312	(0.810, 0.968)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.065026	1.067186	(0.899, 1.267)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.062211	0.939685	(0.855, 1.032)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.052388	0.948961	(0.855, 1.053)
WELLPCA, $\gamma_{41}$	-0.017049	0.983096	(0.887, 1.089)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.999649	7.386462	(5.386, 10.130)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.420544	1.522790	(1.308, 1.773)

Final estimation of fixed effects  
(Unit-specific model with robust standard errors)

Fixed Effect	Coefficient	Standard Error	t	Approx.p d.f.
For INTRCPT1, $\beta_0$				
INTRCPT2, $\gamma_{00}$	-2.416440	0.069623	-34.707 56	<0.001
WELLPCA, $\gamma_{01}$	-0.186411	0.039488	-4.721 56	<0.001
For CHOICE slope, $\beta_1$				
INTRCPT2, $\gamma_{10}$	-0.121816	0.042617	-2.858 4948	0.004
For BULLY slope, $\beta_2$				
INTRCPT2, $\gamma_{20}$	0.065026	0.122941	0.529 4948	0.597
For TIME slope, $\beta_3$				
INTRCPT2, $\gamma_{30}$	-0.062211	0.036045	-1.726 4948	0.084
For DUTIES slope, $\beta_4$				
INTRCPT2, $\gamma_{40}$	-0.052388	0.046663	-1.123 56	0.266
WELLPCA, $\gamma_{41}$	-0.017049	0.038911	-0.438 56	0.663
For PHYCON15 slope, $\beta_5$				
INTRCPT2, $\gamma_{50}$	1.999649	0.153180	13.054 4948	<0.001
For KESCON15 slope, $\beta_6$				
INTRCPT2, $\gamma_{60}$	0.420544	0.062928	6.683 4948	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, $\beta_0$			
INTRCPT2, $\gamma_{00}$	-2.416440	0.089239	(0.078, 0.103)
WELLPCA, $\gamma_{01}$	-0.186411	0.829933	(0.767, 0.898)
For CHOICE slope, $\beta_1$			
INTRCPT2, $\gamma_{10}$	-0.121816	0.885312	(0.814, 0.962)
For BULLY slope, $\beta_2$			
INTRCPT2, $\gamma_{20}$	0.065026	1.067186	(0.839, 1.358)
For TIME slope, $\beta_3$			
INTRCPT2, $\gamma_{30}$	-0.062211	0.939685	(0.876, 1.008)
For DUTIES slope, $\beta_4$			
INTRCPT2, $\gamma_{40}$	-0.052388	0.948961	(0.864, 1.042)
WELLPCA, $\gamma_{41}$	-0.017049	0.983096	(0.909, 1.063)
For PHYCON15 slope, $\beta_5$			
INTRCPT2, $\gamma_{50}$	1.999649	7.386462	(5.471, 9.973)
For KESCON15 slope, $\beta_6$			
INTRCPT2, $\gamma_{60}$	0.420544	1.522790	(1.346, 1.723)

Final estimation of variance components					
Random Effect	Standard Deviation	Variance Component	df	Chi-square	p
INTRCPT1, $u_0$	0.18465	0.03410	56	67.43242	0.141
DUTIES slope, $u_4$	0.02557	0.00065	56	53.97416	>0.500

Mplus results

Variable labels

Phy15 - 2105 physical health, continuous variable

Kes15 – 2015 Kessler score, continuous variable

Choice15 – job control

Bully15 - bullying

Press15 – time pressure

Duties15 – role clarity

Prafac1 – first principal component of health and wellbeing practices

Prafacsq –  $FAC1\_1 * FAC1\_1$

sizcat – organisational size

finpro – sector - financial and professional services

know – sector - knowledge intensive industries

manu – sector manufacturing

clu1 clu2 clu3 – clusters from latent profile analysis, clu1 is least extensive category, clu2 is most extensive category, clu3 is intermediate category

ACC – single practice, accumulated overtime

ACT – single practice, active governance

EAT – single practice, healthy eating

ALC – single practice, drinking support

PHY – single practice, physical health

PSY – single practice, psychological problems

SMO – single practice, smoking cessation

TER – single practice, medical services

BEN – single practice, provision of health benefits

HPR – single practice, health promotion

SPR – single practice, service promotion

CUL – single practice, management support

FEL – single practice, flexible time

Results are presented in the following order: a) Table 4 from the main text; b) Replications of significant results from the main text using simple models and a maximum likelihood estimator; c) Moderators; c) outcomes as continuous variables; d) using latent profile analysis clusters instead of the first principal component; e) controls for organisational size and sector; f) assessing impact of single practices.

Linear effects only deterioration of physical health in 2016.

#### SUMMARY OF DATA

Number of clusters		58
Size (s)	Cluster ID with Size s	
7	22	
16	166	
23	80 71 205	
25	74	
27	192	
31	65	
32	106	

35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

#### PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
PRAFAC	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	PRAFAC
PRESS15	0.915		
DUTIES15	0.915	0.915	
PRAFAC	0.915	0.915	1.000

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

#### UNIVARIATE SAMPLE STATISTICS

##### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368

	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
PRAFAC		-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
	58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-17.297 22.027

Posterior Predictive P-Value 0.464

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON					
PHY15		0.969	0.066	0.000	0.843	1.105 *
CHOICE15		-0.071	0.024	0.002	-0.117	-0.024 *
BULLY15		0.033	0.050	0.259	-0.068	0.129
DUTIES15		-0.032	0.028	0.134	-0.082	0.024
PRESS15		-0.033	0.026	0.110	-0.084	0.018
KES15		0.225	0.044	0.000	0.142	0.313 *
KES15	WITH					
PHY15		0.051	0.004	0.000	0.044	0.058 *
CHOICE15		-0.089	0.008	0.000	-0.105	-0.074 *
BULLY15		0.057	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.084	0.115 *
DUTIES15		-0.106	0.007	0.000	-0.121	-0.091 *
PHY15	WITH					
CHOICE15		-0.036	0.007	0.000	-0.050	-0.023 *
BULLY15		0.012	0.003	0.000	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.025	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.048	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.071	-0.044 *
PRESS15		-0.087	0.014	0.000	-0.115	-0.059 *
DUTIES15		0.173	0.014	0.000	0.146	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.118 *
DUTIES15		-0.078	0.007	0.000	-0.091	-0.066 *
PRESS15	WITH					
DUTIES15		-0.186	0.013	0.000	-0.211	-0.161 *
Means						
PHY15		0.002	0.007	0.358	-0.010	0.016
KES15		0.001	0.008	0.435	-0.014	0.017
CHOICE15		-0.001	0.015	0.456	-0.030	0.027
BULLY15		0.001	0.007	0.464	-0.013	0.014
PRESS15		0.000	0.014	0.490	-0.027	0.029
DUTIES15		-0.002	0.013	0.443	-0.026	0.025
Variances						
PHY15		0.233	0.005	0.000	0.225	0.243 *
KES15		0.290	0.006	0.000	0.279	0.301 *



CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

#### Between Level

PHYCAT16 ON PRAFAC	-0.082	0.031	0.002	-0.147	-0.023	*
Thresholds PHYCAT16\$1	1.347	0.035	0.000	1.282	1.420	*
Residual Variances PHYCAT16	0.012	0.012	0.000	0.001	0.046	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Posterior	One-Tailed	95% C.I.		
		S.D.	P-Value	Lower 2.5%	Upper 2.5%	Significance
Within Level						
PHYCAT16	ON					
PHY15		0.414	0.000	0.370	0.460	*
CHOICE15		-0.065	0.002	-0.107	-0.022	*
BULLY15		0.014	0.259	-0.030	0.055	
DUTIES15		-0.026	0.134	-0.068	0.020	
PRESS15		-0.029	0.110	-0.074	0.016	
KES15		0.107	0.000	0.068	0.148	*
KES15	WITH					
PHY15		0.198	0.000	0.171	0.223	*
CHOICE15		-0.159	0.000	-0.185	-0.131	*
BULLY15		0.219	0.000	0.194	0.243	*
PRESS15		0.185	0.000	0.158	0.211	*
DUTIES15		-0.212	0.000	-0.239	-0.184	*
PHY15	WITH					
CHOICE15		-0.072	0.000	-0.099	-0.046	*
BULLY15		0.049	0.000	0.022	0.077	*

PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.172	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.358	-0.022	0.033	
KES15	0.002	0.014	0.435	-0.025	0.031	
CHOICE15	-0.001	0.014	0.456	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON						
PRAFAC	-0.657	0.198	0.002	-0.956	-0.208	*
Thresholds						
PHYCAT16\$1	8.871	3.256	0.000	5.493	17.444	*
Residual Variances						
PHYCAT16	0.568	0.236	0.000	0.085	0.956	*
R-SQUARE						

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.020	0.000	0.177	0.257

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.432	0.236	0.000	0.044	0.915

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                    0                    0                    0                    0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                    0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
PHYCAT16      0                    0                    0                    0                    0

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

# ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA		
PRESS15		DUTIES15
	<hr/>	<hr/>
	5	6

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15		DUTIES15
	<hr/>	<hr/>
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
36

NU	
PHYCAT16	PRAFAC
0	0

LAMBDA	
PHYCAT16	PRAFAC
0	0
PRAFAC	0

THETA	
PHYCAT16	PRAFAC
0	
PRAFAC	0

ALPHA	
PHYCAT16	PRAFAC
0	0

BETA	
PHYCAT16	PRAFAC

PHYCAT16	0	34
PRAFAC	0	0

	PSI	
	PHYCAT16	PRAFAC
PHYCAT16	<u>35</u>	<u>0</u>
PRAFAC	0	0

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	<u>0.000</u>
DUTIES15	0.000	0.000

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA		
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA



	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

# BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

# PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU		
	PHYCAT16	
	<hr/>	
	1.110	
NU		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
	0.000	0.000
LAMBDA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	1.000	0.000
PRAFAC	0.000	1.000
THETA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	0.000	
PRAFAC	0.000	0.000
ALPHA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
	0.000	0.000
BETA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PRAFAC	0.000	0.000
PSI		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	1.000	

PRAFAC            0.000            0.504

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.450486D-04				
2	0.997951D-05	0.604930D-04			
3	-0.753058D-05	-0.221281D-04	0.213901D-03		
4	0.337152D-05	0.123644D-04	-0.913498D-05	0.473260D-04	
5	0.114664D-04	0.198158D-04	-0.196348D-04	0.221015D-04	0.197382D-03
6	-0.553474D-05	-0.214118D-04	0.418984D-04	-0.152100D-04	-0.365529D-04
7	-0.319584D-05	0.105079D-05	-0.299755D-04	-0.161188D-04	0.160576D-04
8	0.693293D-05	0.505720D-05	-0.207466D-05	0.155962D-04	0.255509D-04
9	-0.560437D-05	-0.223649D-05	0.563694D-05	-0.736016D-06	-0.161244D-04
10	0.781428D-05	0.953005D-06	-0.328032D-04	-0.532710D-05	-0.189586D-04
11	-0.442864D-05	0.595988D-05	-0.216141D-04	0.292113D-05	0.118026D-04
12	0.157469D-05	-0.244559D-05	-0.108942D-04	0.110956D-05	0.169878D-04
13	0.229983D-07	0.964489D-06	-0.186243D-05	-0.687844D-06	-0.191049D-05
14	0.990854D-06	0.720612D-06	-0.305602D-05	-0.125151D-05	0.377066D-06
15	0.352231D-06	0.154923D-06	-0.302392D-05	0.349100D-06	-0.580093D-06
16	-0.662154D-06	-0.107686D-05	-0.119918D-05	0.612909D-06	-0.267963D-05
17	-0.472853D-06	-0.207583D-05	0.448533D-05	0.339416D-05	0.677026D-05
18	-0.433000D-05	-0.469523D-05	0.462824D-05	-0.748047D-05	-0.278765D-05
19	0.101072D-05	0.724319D-06	-0.135894D-05	0.186588D-06	-0.827767D-06
20	0.284277D-06	-0.266761D-06	-0.427127D-06	-0.379787D-06	-0.160241D-05
21	-0.930959D-06	-0.417119D-07	0.422241D-06	0.300191D-05	0.478762D-05
22	0.153869D-06	0.193394D-05	0.427959D-06	-0.813580D-06	0.189138D-05
23	0.994719D-06	0.787881D-06	0.126813D-05	-0.123986D-06	0.212741D-05
24	0.147235D-05	0.165014D-05	-0.283183D-05	-0.238502D-06	-0.554577D-05
25	0.119110D-06	0.221452D-05	0.874296D-05	0.133012D-05	0.640579D-05
26	0.496519D-06	0.701370D-06	0.451698D-05	-0.203180D-06	0.492987D-05
27	-0.228662D-05	0.498399D-05	0.948168D-05	0.652988D-06	0.395037D-05
28	-0.985772D-06	-0.208619D-05	-0.119963D-05	-0.425884D-06	0.211492D-05
29	-0.125402D-05	-0.873887D-06	0.434149D-05	-0.203609D-06	0.908985D-05
30	-0.133885D-06	0.887616D-06	0.124387D-05	-0.170187D-05	-0.139304D-04
31	-0.996769D-06	0.853473D-06	0.156064D-05	0.635077D-06	0.237212D-05
32	-0.131193D-05	0.503662D-06	0.633704D-05	0.168727D-05	-0.602739D-05
33	-0.126726D-05	-0.373716D-05	-0.332961D-05	-0.111506D-05	-0.590608D-05
34	-0.665825D-05	0.501018D-05	0.437792D-05	-0.419604D-05	0.632722D-05
35	-0.685340D-06	0.210923D-05	0.798844D-05	0.399107D-06	-0.312268D-05
36	0.287091D-05	0.307618D-05	-0.822961D-05	-0.645408D-05	0.232032D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	0.172642D-03				
7	-0.238805D-04	0.435490D-02			
8	-0.113961D-05	-0.361015D-03	0.190480D-02		
9	0.550626D-06	0.445875D-05	0.118398D-03	0.569941D-03	
10	-0.225483D-05	-0.249055D-04	-0.365399D-03	0.527453D-04	0.245396D-02
11	-0.517870D-05	-0.212849D-04	-0.858730D-04	0.243848D-05	-0.250975D-03
12	0.339858D-05	-0.534132D-04	0.160527D-03	-0.107518D-03	0.125267D-03
13	-0.127660D-05	-0.796734D-05	0.181192D-05	-0.150826D-05	0.106507D-05
14	-0.484553D-06	0.300042D-05	0.107046D-05	-0.131602D-05	0.445056D-05
15	0.550491D-06	-0.168221D-04	-0.173837D-05	0.234898D-05	0.742437D-05
16	0.185446D-05	-0.411929D-04	0.644356D-05	-0.378475D-05	0.947681D-05
17	0.339472D-05	-0.265273D-05	0.735901D-06	0.692258D-06	-0.230056D-05
18	0.391285D-05	-0.151205D-04	-0.180561D-05	0.246239D-05	-0.445171D-04
19	0.815346D-06	0.694357D-06	-0.335743D-05	0.181418D-05	0.784737D-05
20	0.233470D-05	-0.330423D-05	0.228017D-05	0.305633D-05	-0.321983D-05
21	0.417851D-06	-0.148788D-04	-0.165412D-05	0.153558D-05	0.386454D-05
22	-0.486790D-06	0.450338D-05	-0.363646D-06	0.246365D-05	-0.150287D-04
23	-0.233612D-05	-0.776745D-05	0.437760D-05	-0.565065D-05	0.219308D-04
24	-0.168042D-05	-0.804871D-05	0.540673D-05	0.315652D-05	0.985324D-05
25	-0.221413D-05	-0.222746D-04	0.623829D-05	0.256251D-05	0.141653D-04
26	-0.193548D-06	0.579873D-05	-0.227702D-05	0.501682D-05	-0.298470D-05
27	-0.276712D-05	0.203007D-04	0.140966D-05	-0.486312D-06	-0.166610D-04
28	0.296243D-05	0.639215D-05	-0.936121D-05	-0.611865D-05	-0.912236D-05
29	0.228119D-05	0.182861D-04	-0.131575D-04	-0.480139D-05	-0.336273D-06
30	0.105539D-04	-0.127298D-04	0.423603D-06	-0.111372D-05	-0.214792D-04
31	-0.325562D-05	-0.646384D-05	-0.159889D-05	-0.611622D-05	-0.483465D-05
32	-0.288118D-05	-0.320715D-05	-0.121134D-05	-0.400534D-05	0.274989D-04
33	0.798554D-05	-0.808013D-04	0.217555D-04	0.465222D-05	-0.256183D-04
34	-0.524641D-05	-0.547998D-04	0.515616D-04	-0.154455D-04	-0.283642D-04
35	-0.398890D-05	0.275407D-04	-0.736146D-07	-0.153481D-04	-0.105657D-04
36	-0.172655D-04	0.839427D-03	0.102792D-03	-0.120257D-04	-0.326886D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.656817D-03				
12	0.129812D-03	0.780344D-03			
13	0.966950D-06	0.425733D-05	0.209783D-04		
14	0.187392D-05	0.192566D-05	0.446997D-05	0.131004D-04	
15	0.423394D-05	0.168305D-05	0.352632D-06	0.529044D-05	0.319548D-04

16	-0.988619D-05	0.410006D-05	-0.391636D-05	-0.438091D-05	0.578874D-06
17	0.284562D-05	0.735244D-05	-0.347782D-05	-0.414944D-05	-0.100673D-04
18	0.111017D-04	-0.302129D-05	0.256755D-05	0.541189D-06	0.119704D-05
19	0.535643D-05	0.406712D-06	0.953914D-06	0.225394D-05	0.445484D-06
20	0.195029D-05	-0.659794D-06	0.236555D-06	0.745259D-06	0.514697D-05
21	0.406663D-06	0.221858D-05	-0.855325D-06	-0.882885D-06	0.706719D-07
22	0.602556D-06	-0.385300D-05	0.786427D-06	0.381393D-06	0.514061D-06
23	-0.334951D-05	0.706832D-05	0.247574D-05	0.392774D-05	0.330047D-06
24	-0.103024D-05	0.634670D-06	0.165330D-05	0.334543D-05	0.101639D-04
25	-0.899325D-05	0.128392D-04	-0.215698D-05	-0.187204D-05	0.247343D-05
26	0.205624D-05	0.300817D-05	0.811777D-06	-0.414187D-06	0.742101D-06
27	0.858586D-05	0.333103D-05	-0.290143D-06	0.135948D-05	0.210843D-05
28	0.253149D-05	0.310890D-05	-0.316031D-05	-0.404041D-05	-0.562771D-06
29	-0.106698D-04	-0.422066D-05	-0.482947D-07	-0.267212D-05	-0.121476D-04
30	-0.140241D-05	-0.245313D-04	0.272470D-05	0.143178D-05	0.293468D-06
31	-0.424245D-05	-0.939511D-06	-0.657329D-06	-0.233409D-06	-0.132616D-05
32	-0.365864D-05	0.725958D-06	-0.443453D-06	-0.127940D-05	-0.190462D-05
33	0.340261D-05	0.208069D-04	0.171036D-05	0.106587D-05	0.186443D-05
34	-0.189173D-04	-0.155977D-05	-0.129704D-05	-0.200996D-05	0.220588D-05
35	0.119164D-05	0.157723D-04	0.226602D-05	-0.109181D-05	0.187990D-05
36	-0.188559D-04	-0.115147D-04	-0.118677D-05	-0.190782D-05	0.196413D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.487858D-04				
17	0.116877D-04	0.630629D-04			
18	-0.166528D-04	-0.375780D-04	0.455391D-03		
19	-0.191148D-05	-0.182408D-05	0.264162D-05	0.104692D-04	
20	-0.817960D-06	-0.456138D-05	0.522654D-06	0.301726D-05	0.133090D-04
21	0.304932D-05	0.110293D-04	-0.288232D-04	-0.233199D-05	-0.434891D-05
22	0.844568D-06	-0.337745D-05	-0.193490D-06	0.200322D-05	0.495586D-05
23	-0.285239D-05	0.845181D-07	0.229113D-05	0.498441D-05	0.124014D-05
24	-0.377697D-05	-0.690495D-05	-0.111959D-05	0.977771D-06	0.684403D-05
25	0.869617D-05	0.159935D-04	-0.477182D-04	-0.335447D-05	-0.110477D-05
26	-0.298472D-05	-0.138446D-05	0.431385D-05	0.225351D-05	0.579125D-05
27	-0.611142D-05	-0.439886D-05	0.195017D-04	0.496763D-05	0.711942D-05
28	0.619253D-05	0.382806D-05	-0.403695D-05	-0.351002D-05	-0.125948D-05
29	0.139184D-06	0.123662D-04	-0.326956D-05	-0.154951D-05	-0.501923D-05
30	-0.670381D-05	-0.249434D-04	0.646095D-04	0.186031D-05	0.143520D-05
31	0.949561D-06	0.612900D-05	-0.172490D-05	-0.252561D-05	-0.610807D-05
32	0.551498D-05	0.666014D-05	-0.160300D-04	-0.137337D-05	-0.428755D-05
33	0.443063D-05	-0.113337D-04	0.776350D-05	0.956668D-06	0.261603D-05

34	0.769016D-05	0.183435D-05	-0.523834D-05	0.530898D-06	0.295657D-05
35	-0.125085D-05	-0.161359D-05	0.107276D-05	0.810559D-06	0.638230D-06
36	-0.109049D-04	0.601799D-05	-0.204332D-04	-0.102930D-05	-0.488980D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478232D-04				
22	-0.602844D-05	0.233604D-04			
23	-0.981669D-06	0.153768D-05	0.461699D-04		
24	-0.347927D-05	0.420562D-05	0.970748D-05	0.591044D-04	
25	0.235137D-04	-0.166117D-05	-0.574578D-05	-0.162043D-04	0.208199D-03
26	-0.462280D-05	0.106536D-04	0.268469D-05	0.129440D-04	-0.794647D-05
27	-0.507961D-05	0.100908D-04	0.146347D-04	0.375361D-04	-0.198702D-04
28	0.675329D-06	-0.178007D-05	-0.911662D-05	-0.159735D-05	-0.863974D-07
29	0.282485D-05	-0.238641D-05	-0.316800D-05	-0.137647D-04	0.414504D-05
30	-0.175196D-04	0.318993D-05	0.284894D-07	0.618198D-05	-0.443955D-04
31	0.825090D-05	-0.792194D-05	-0.264990D-05	-0.586423D-05	0.506375D-05
32	0.435981D-05	-0.447409D-05	-0.583381D-05	-0.203138D-04	0.221364D-04
33	-0.701298D-05	0.537333D-05	0.213768D-05	0.614392D-05	-0.109177D-04
34	-0.353400D-05	-0.285298D-05	-0.432063D-05	0.455555D-05	0.542977D-05
35	0.225393D-05	0.535972D-06	-0.119388D-05	0.247314D-05	0.711097D-05
36	0.631548D-05	0.252767D-05	-0.808958D-06	0.643417D-05	0.250881D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.475443D-04				
27	0.414791D-04	0.387706D-03			
28	-0.857955D-06	-0.484867D-05	0.375047D-04		
29	-0.194238D-05	-0.878439D-05	0.796891D-05	0.516376D-04	
30	0.462451D-05	0.262766D-04	-0.700537D-05	-0.186122D-04	0.191145D-03
31	-0.957124D-05	-0.967686D-05	0.280193D-05	0.130462D-04	-0.110255D-04
32	-0.152178D-04	-0.649130D-04	0.420802D-05	0.198491D-04	-0.194369D-04
33	0.632364D-05	0.118342D-04	-0.747099D-05	-0.373247D-04	0.567816D-04
34	0.313177D-05	-0.207314D-04	0.523153D-05	0.366868D-05	-0.787170D-05
35	0.200157D-05	0.279372D-05	0.335815D-07	-0.158846D-05	0.195772D-05
36	0.661774D-05	0.211659D-04	-0.710165D-05	0.165110D-05	-0.577874D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

31	32	33	34	35
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31	0.422960D-04				
32	0.239142D-04	0.160896D-03			
33	-0.287895D-04	-0.530740D-04	0.285440D-03		
34	0.395424D-05	-0.339180D-05	-0.332282D-04	0.949379D-03	
35	-0.433636D-05	0.323164D-05	-0.277083D-05	-0.349982D-04	0.138089D-03
36	-0.499402D-05	0.170032D-05	-0.861927D-05	-0.157200D-03	0.820578D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES  
36

36	0.119297D-02
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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.002	-0.031	-0.036	0.017
8	0.024	0.015	-0.003	0.052	0.042
9	-0.035	-0.012	0.016	-0.004	-0.048
10	0.024	0.002	-0.045	-0.016	-0.027
11	-0.026	0.030	-0.058	0.017	0.033
12	0.008	-0.011	-0.027	0.006	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.026	-0.058	-0.050	0.007
15	0.009	0.004	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.047	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.005	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051



27	-0.017	0.033	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.001	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.028	-0.013	-0.010	-0.025
34	-0.032	0.021	0.010	-0.020	0.015
35	-0.009	0.023	0.046	0.005	-0.019
36	0.012	0.011	-0.016	-0.027	0.048

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.028	1.000			
8	-0.002	-0.125	1.000		
9	0.002	0.003	0.114	1.000	
10	-0.003	-0.008	-0.169	0.045	1.000
11	-0.015	-0.013	-0.077	0.004	-0.198
12	0.009	-0.029	0.132	-0.161	0.091
13	-0.021	-0.026	0.009	-0.014	0.005
14	-0.010	0.013	0.007	-0.015	0.025
15	0.007	-0.045	-0.007	0.017	0.027
16	0.020	-0.089	0.021	-0.023	0.027
17	0.033	-0.005	0.002	0.004	-0.006
18	0.014	-0.011	-0.002	0.005	-0.042
19	0.019	0.003	-0.024	0.023	0.049
20	0.049	-0.014	0.014	0.035	-0.018
21	0.005	-0.033	-0.019	0.009	0.011
22	-0.008	0.014	-0.002	0.021	-0.063
23	-0.026	-0.017	0.015	-0.035	0.065
24	-0.017	-0.016	0.016	0.017	0.026
25	-0.012	-0.023	0.010	0.007	0.020
26	-0.002	0.013	-0.008	0.030	-0.009
27	-0.011	0.016	0.002	-0.001	-0.017
28	0.037	0.016	-0.035	-0.042	-0.030
29	0.024	0.039	-0.042	-0.028	-0.001
30	0.058	-0.014	0.001	-0.003	-0.031
31	-0.038	-0.015	-0.006	-0.039	-0.015
32	-0.017	-0.004	-0.002	-0.013	0.044
33	0.036	-0.072	0.030	0.012	-0.031
34	-0.013	-0.027	0.038	-0.021	-0.019

35	-0.026	0.036	0.000	-0.055	-0.018
36	-0.038	0.368	0.068	-0.015	-0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.008	0.033	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.011	0.014	0.259	1.000
16	-0.055	0.021	-0.122	-0.173	0.015
17	0.014	0.033	-0.096	-0.144	-0.224
18	0.020	-0.005	0.026	0.007	0.010
19	0.065	0.004	0.064	0.192	0.024
20	0.021	-0.006	0.014	0.056	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.005	-0.029	0.036	0.022	0.019
23	-0.019	0.037	0.080	0.160	0.009
24	-0.005	0.003	0.047	0.120	0.234
25	-0.024	0.032	-0.033	-0.036	0.030
26	0.012	0.016	0.026	-0.017	0.019
27	0.017	0.006	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.058	-0.021	-0.001	-0.103	-0.299
30	-0.004	-0.064	0.043	0.029	0.004
31	-0.025	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027
33	0.008	0.044	0.022	0.017	0.020
34	-0.024	-0.002	-0.009	-0.018	0.013
35	0.004	0.048	0.042	-0.026	0.028
36	-0.021	-0.012	-0.008	-0.015	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.157	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172

22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.018	0.042
34	0.036	0.007	-0.008	0.005	0.026
35	-0.015	-0.017	0.004	0.021	0.015
36	-0.045	0.022	-0.028	-0.009	-0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040
30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.017	-0.019	-0.021	0.019	0.012
35	0.028	0.009	-0.015	0.027	0.042
36	0.026	0.015	-0.003	0.024	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		

29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.015	-0.034	0.028	0.017	-0.018
35	0.025	0.012	0.000	-0.019	0.012
36	0.028	0.031	-0.034	0.007	-0.012

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.020	-0.009	-0.064	1.000	
35	-0.057	0.022	-0.014	-0.097	1.000
36	-0.022	0.004	-0.015	-0.148	0.202

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36	36
36	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.013	35
200	1.021	36
300	1.009	8
400	1.009	33
500	1.005	3

600	1.006	35
700	1.007	35
800	1.004	35
900	1.002	35
1000	1.001	36

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144

108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PRAFACSQ	PHY15	KES15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PRAFACSQ	1.000	1.000	1.000		
PHY15	0.947	0.947	0.947	0.947	
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.915			
BULLY15	0.915	0.915		
PRESS15	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16

Category 1	0.881	4884.000
Category 2	0.119	662.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PRAFACSQ	1.379	1.240	0.002	1.72%	0.151	0.381	0.681
58.000	2.369	0.557	5.467	1.72%	1.168	2.366	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION



Number of Free Parameters

42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-28.399 21.278

Posterior Predictive P-Value 0.556

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.970	0.068	0.000	0.838	1.103	*
CHOICE15	-0.067	0.025	0.003	-0.116	-0.018	*
BULLY15	0.029	0.049	0.275	-0.069	0.120	
DUTIES15	-0.029	0.027	0.138	-0.085	0.023	
PRESS15	-0.032	0.027	0.103	-0.083	0.021	
KES15	0.224	0.044	0.000	0.137	0.311	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.093	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.001	0.005	0.018	*
PRESS15	0.038	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15	-0.086	0.015	0.000	-0.118	-0.060	*

DUTIES15	0.173	0.013	0.000	0.148	0.201	*
BULLY15 WITH						
PRESS15	0.104	0.007	0.000	0.092	0.118	*
DUTIES15	-0.077	0.006	0.000	-0.090	-0.065	*
PRESS15 WITH						
DUTIES15	-0.185	0.013	0.000	-0.212	-0.160	*
Means						
PHY15	0.002	0.007	0.368	-0.011	0.015	
KES15	0.001	0.008	0.444	-0.014	0.015	
CHOICE15	-0.002	0.015	0.449	-0.029	0.028	
BULLY15	0.001	0.007	0.474	-0.013	0.015	
PRESS15	0.001	0.014	0.481	-0.026	0.029	
DUTIES15	-0.001	0.013	0.471	-0.026	0.025	
Variances						
PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.289	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.122	*
BULLY15	0.239	0.005	0.000	0.230	0.248	*
PRESS15	1.000	0.020	0.000	0.963	1.040	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*
Between Level						
PHYCAT16 ON						
PRAFAC	-0.091	0.031	0.001	-0.155	-0.034	*
PRAFACSQ	-0.028	0.024	0.114	-0.077	0.017	
PRAFAC WITH						
PRAFACSQ	-0.108	0.237	0.316	-0.597	0.356	
Means						
PRAFAC	-0.188	0.152	0.104	-0.495	0.121	
PRAFACSQ	1.379	0.211	0.000	0.958	1.794	*
Thresholds						
PHYCAT16\$1	1.312	0.045	0.000	1.227	1.409	*
Variances						
PRAFAC	1.356	0.260	0.000	0.979	1.964	*
PRAFACSQ	2.360	0.447	0.000	1.674	3.419	*

Residual Variances						
PHYCAT16	0.012	0.011	0.000	0.001	0.043	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within Level					Lower 2.5%	Upper 2.5%	
PHYCAT16 ON							
	PHY15	0.415	0.024	0.000	0.366	0.461	*
	CHOICE15	-0.062	0.023	0.003	-0.106	-0.017	*
	BULLY15	0.013	0.021	0.275	-0.029	0.052	
	DUTIES15	-0.024	0.022	0.138	-0.069	0.019	
	PRESS15	-0.028	0.024	0.103	-0.074	0.019	
	KES15	0.106	0.021	0.000	0.066	0.148	*
KES15 WITH							
	PHY15	0.198	0.013	0.000	0.170	0.223	*
	CHOICE15	-0.159	0.014	0.000	-0.187	-0.132	*
	BULLY15	0.218	0.013	0.000	0.193	0.244	*
	PRESS15	0.186	0.014	0.000	0.157	0.212	*
	DUTIES15	-0.213	0.013	0.000	-0.240	-0.187	*
PHY15 WITH							
	CHOICE15	-0.072	0.014	0.000	-0.099	-0.045	*
	BULLY15	0.049	0.014	0.001	0.021	0.076	*
	PRESS15	0.079	0.014	0.000	0.053	0.107	*
	DUTIES15	-0.081	0.014	0.000	-0.107	-0.054	*
CHOICE15 WITH							
	BULLY15	-0.114	0.014	0.000	-0.141	-0.088	*
	PRESS15	-0.083	0.014	0.000	-0.113	-0.058	*
	DUTIES15	0.179	0.013	0.000	0.154	0.206	*
BULLY15 WITH							
	PRESS15	0.214	0.013	0.000	0.189	0.239	*
	DUTIES15	-0.171	0.013	0.000	-0.197	-0.145	*

PRESS15 WITH DUTIES15	-0.200	0.013	0.000	-0.227	-0.174	*
Means						
PHY15	0.004	0.014	0.368	-0.024	0.031	
KES15	0.002	0.014	0.444	-0.025	0.028	
CHOICE15	-0.002	0.014	0.449	-0.028	0.026	
BULLY15	0.001	0.014	0.474	-0.026	0.030	
PRESS15	0.001	0.014	0.481	-0.026	0.029	
DUTIES15	-0.001	0.014	0.471	-0.028	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON						
PRAFAC	-0.653	0.168	0.001	-0.936	-0.283	*
PRAFACSQ	-0.275	0.216	0.114	-0.672	0.169	
PRAFAC WITH PRAFACSQ	-0.061	0.125	0.316	-0.314	0.186	
Means						
PRAFAC	-0.162	0.130	0.104	-0.421	0.104	
PRAFACSQ	0.900	0.157	0.000	0.592	1.199	*
Thresholds						
PHYCAT16\$1	7.917	2.669	0.000	5.027	14.530	*
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.465	0.211	0.000	0.080	0.864	*
R-SQUARE						

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.215	0.021	0.000	0.177	0.258

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.535	0.211	0.000	0.136	0.920

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                    0                    0                    0                    0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                    0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
PHYCAT16      0                    0                    0                    0                    0

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA		
PRESS15		DUTIES15
	<hr/>	<hr/>
	5	6

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15		DUTIES15
	<hr/>	<hr/>
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
42

NU			
PHYCAT16	PRAFAC	PRAFACSQ	
0	0	0	

LAMBDA			
PHYCAT16	PRAFAC	PRAFACSQ	
PHYCAT16	0	0	0
PRAFAC	0	0	0
PRAFACSQ	0	0	0

THETA			
PHYCAT16	PRAFAC	PRAFACSQ	
PHYCAT16	0		
PRAFAC	0	0	
PRAFACSQ	0	0	0

ALPHA			
PHYCAT16	PRAFAC	PRAFACSQ	
0	34	35	

BETA



	PHYCAT16	PRAFAC	PRAFACSQ
PHYCAT16	0	36	37
PRAFAC	0	0	0
PRAFACSQ	0	0	0

PSI			
	PHYCAT16	PRAFAC	PRAFACSQ
PHYCAT16	38		
PRAFAC	0	39	
PRAFACSQ	0	40	41

STARTING VALUES FOR WITHIN

TAU	
	PHYCAT16
	0.000

NU					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

NU	
	PRESS15
	0.000
	DUTIES15
	0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000

PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15

0.000      0.000

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU  
PHYCAT16  

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1.110

NU	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

LAMBDA	PHYCAT16	PRAFAC	PRAFACSQ
PHYCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	1.000	0.000
PRAFACSQ	0.000	0.000	1.000

THETA	PHYCAT16	PRAFAC	PRAFACSQ
PHYCAT16	<hr/> 0.000	<hr/>	<hr/>
PRAFAC	0.000	0.000	
PRAFACSQ	0.000	0.000	0.000

ALPHA	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0.000	<hr/> 0.020	<hr/> 1.009

BETA	PHYCAT16	PRAFAC	PRAFACSQ
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	0.000	0.000

PRAFACSQ	0.000	0.000	0.000
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	PSI		
	PHYCAT16	PRAFAC	PRAFACSQ
PHYCAT16	1.000		
PRAFAC	0.000	0.504	
PRAFACSQ	0.000	0.000	0.745

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity

Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.448715D-04				
2	0.119511D-04	0.581457D-04			
3	-0.838923D-05	-0.194678D-04	0.221297D-03		
4	0.414711D-05	0.135844D-04	-0.120752D-04	0.493773D-04	
5	0.582680D-05	0.187762D-04	-0.187262D-04	0.223977D-04	0.195613D-03
6	-0.947227D-05	-0.167695D-04	0.353880D-04	-0.142983D-04	-0.310541D-04
7	-0.128025D-04	-0.378183D-05	-0.168271D-04	-0.867851D-05	-0.444532D-04
8	-0.360072D-05	-0.619411D-05	0.222913D-04	0.268619D-05	-0.927373D-05
9	-0.933509D-05	-0.283443D-05	0.177603D-04	-0.130963D-05	0.225270D-05
10	0.101222D-04	-0.531193D-05	-0.108935D-04	0.103832D-04	-0.230369D-04
11	0.881251D-05	0.609790D-05	0.104511D-04	-0.248018D-05	0.477918D-05
12	0.437128D-05	0.399760D-05	-0.157799D-04	0.521688D-05	0.192786D-05
13	-0.408427D-06	0.663662D-06	0.208215D-05	-0.109374D-05	-0.883130D-06
14	-0.577930D-06	0.106010D-05	0.128622D-05	-0.678533D-06	-0.471782D-06
15	-0.190359D-05	0.128874D-05	0.171363D-06	0.195570D-06	0.839888D-06
16	-0.360446D-06	-0.143635D-07	0.112423D-05	0.487557D-06	0.176933D-05
17	0.211579D-05	-0.105687D-06	-0.209660D-05	0.270987D-06	0.212994D-05
18	0.503414D-06	0.455433D-05	0.316168D-05	0.252356D-05	-0.254510D-05
19	0.372728D-06	-0.217108D-06	-0.112674D-05	-0.261644D-06	0.137462D-06
20	-0.317349D-06	-0.142839D-06	-0.581387D-06	0.628898D-07	0.111536D-06
21	0.197741D-06	0.956673D-06	0.432648D-07	-0.185555D-07	-0.347394D-06
22	-0.825867D-07	-0.690233D-06	0.129857D-05	-0.547962D-06	0.195286D-05
23	-0.107255D-05	-0.343294D-06	-0.377751D-05	-0.160502D-05	-0.648686D-08
24	-0.329911D-06	0.214159D-05	-0.136563D-05	0.127819D-05	-0.682583D-06

25	0.169511D-05	-0.344564D-06	-0.459392D-05	-0.115919D-05	-0.479902D-05
26	-0.117068D-05	-0.181536D-05	0.137000D-05	0.457445D-06	0.365049D-06
27	-0.368185D-05	-0.546637D-05	-0.408590D-05	0.630887D-06	-0.412978D-05
28	-0.108346D-05	0.308756D-06	0.788870D-06	0.475976D-06	-0.435219D-06
29	0.199157D-05	0.498992D-06	0.205791D-05	-0.515343D-06	0.846182D-06
30	-0.127617D-05	0.651519D-06	-0.280189D-05	0.587067D-06	-0.405055D-05
31	0.152709D-05	0.181278D-05	0.798685D-06	-0.344909D-06	0.170923D-05
32	0.677112D-06	0.161329D-06	0.404421D-05	-0.375470D-05	-0.316974D-05
33	-0.730152D-06	-0.271511D-06	0.119694D-05	0.722513D-06	0.381007D-05
34	-0.173638D-04	-0.229438D-04	-0.933167D-04	-0.728735D-05	-0.132678D-04
35	0.242931D-05	0.901130D-05	0.909060D-04	-0.599016D-05	0.522223D-04
36	-0.278495D-05	-0.766690D-06	-0.662237D-06	0.787105D-06	0.802687D-05
37	-0.782533D-05	0.475866D-05	-0.676829D-06	-0.765558D-06	0.194023D-05
38	-0.100539D-05	-0.399197D-05	0.193496D-05	0.309609D-07	-0.199000D-05
39	-0.210424D-04	0.155109D-04	-0.122835D-04	0.341611D-04	0.569962D-05
40	0.626010D-05	-0.137769D-04	-0.160621D-03	-0.378795D-04	0.194049D-03
41	0.487238D-04	0.234210D-03	0.381320D-03	0.861424D-04	-0.113015D-03
42	-0.211427D-04	0.831872D-05	-0.106860D-04	-0.104757D-04	-0.283671D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172160D-03				
7	0.254407D-05	0.458376D-02			
8	0.119631D-04	-0.336205D-03	0.191079D-02		
9	-0.449742D-05	-0.179550D-07	0.165146D-03	0.604485D-03	
10	0.619814D-05	0.639327D-04	-0.337367D-03	0.538598D-04	0.236878D-02
11	0.100223D-04	-0.259278D-04	-0.110861D-03	-0.135423D-04	-0.223648D-03
12	0.114204D-04	0.399529D-04	0.158190D-03	-0.631052D-04	0.149327D-03
13	0.205145D-06	0.109952D-05	0.216127D-05	-0.652526D-06	-0.675369D-05
14	-0.148828D-05	0.232169D-05	-0.621089D-06	-0.215643D-05	-0.845294D-05
15	0.104590D-05	-0.315144D-05	0.618296D-05	-0.147652D-05	-0.139116D-05
16	0.142866D-05	-0.123167D-05	0.105516D-04	-0.137188D-05	0.366192D-06
17	0.294246D-05	-0.144539D-05	-0.152237D-04	-0.324608D-05	-0.106990D-04
18	0.411362D-05	0.185577D-04	0.562947D-04	0.245866D-04	-0.359630D-05
19	0.272549D-05	0.110215D-04	0.919268D-07	0.112936D-07	-0.589867D-05
20	0.309596D-06	-0.231155D-05	-0.410420D-05	0.122160D-05	-0.360884D-05
21	-0.107358D-05	-0.753728D-05	-0.675014D-05	-0.761381D-06	0.144367D-04
22	0.901995D-06	-0.784131D-05	-0.134203D-05	0.462079D-08	-0.629608D-05
23	0.280344D-05	-0.177796D-05	0.959377D-05	-0.241812D-05	-0.106609D-04
24	0.256955D-05	-0.130198D-05	-0.188066D-05	-0.163448D-05	-0.872772D-05
25	0.446418D-05	0.265163D-04	-0.190748D-04	-0.248432D-04	0.217956D-04
26	0.317532D-05	-0.409610D-05	0.172429D-05	-0.212619D-05	-0.175042D-04

27	0.349045D-05	0.216740D-04	-0.183433D-04	0.211599D-05	0.372717D-05
28	-0.388586D-06	-0.590678D-05	0.160714D-05	0.103480D-04	0.172322D-04
29	-0.774903D-06	0.170046D-04	-0.498581D-05	-0.314473D-05	0.650473D-06
30	0.137111D-05	0.287821D-04	0.122082D-04	-0.286655D-05	-0.823766D-06
31	-0.379056D-05	-0.507973D-05	0.271596D-05	0.774491D-06	0.284232D-05
32	-0.334834D-06	-0.109167D-05	-0.867762D-05	-0.766107D-06	0.156264D-04
33	0.841326D-05	0.302764D-04	0.120910D-06	0.860839D-05	0.865900D-05
34	-0.194987D-04	-0.316248D-03	0.107049D-03	-0.177571D-04	0.347856D-03
35	-0.596001D-04	-0.376344D-04	-0.534416D-03	0.206719D-05	-0.145497D-03
36	0.810337D-05	-0.447645D-04	-0.466244D-04	-0.441156D-05	-0.875070D-05
37	0.121414D-05	0.239373D-04	-0.130626D-04	-0.252711D-04	0.355553D-04
38	-0.311520D-05	0.151960D-04	0.827131D-05	-0.909396D-05	-0.135436D-04
39	0.935982D-04	-0.318675D-03	-0.485475D-03	-0.928736D-04	0.407301D-03
40	0.755312D-04	0.490598D-03	-0.351157D-03	0.544608D-04	0.357346D-03
41	-0.110286D-03	-0.937862D-03	0.627004D-03	0.377115D-03	-0.230195D-03
42	-0.138571D-04	0.102738D-02	0.133831D-03	-0.565884D-04	0.905548D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.703965D-03				
12	0.711494D-04	0.735283D-03			
13	0.436902D-05	0.976114D-06	0.214992D-04		
14	0.177110D-05	0.136229D-05	0.484968D-05	0.138775D-04	
15	-0.292617D-05	0.539694D-05	0.853185D-06	0.596873D-05	0.329753D-04
16	-0.413003D-05	0.768496D-05	-0.438661D-05	-0.441589D-05	-0.104894D-05
17	0.261885D-05	0.256999D-05	-0.146061D-05	-0.322482D-05	-0.827880D-05
18	0.392712D-06	-0.127491D-04	0.140357D-05	0.354723D-05	0.277582D-05
19	0.628979D-05	0.396568D-05	0.888971D-06	0.307396D-05	0.118555D-05
20	0.440382D-05	0.700328D-06	0.582111D-06	0.130410D-05	0.640540D-05
21	-0.424067D-05	0.537027D-05	0.795887D-07	-0.117508D-05	-0.154085D-05
22	0.418170D-07	-0.336534D-05	-0.137753D-07	0.870843D-06	0.144530D-05
23	0.755787D-05	0.441619D-05	0.443390D-05	0.518212D-05	0.181553D-05
24	0.113572D-04	-0.385968D-05	0.176428D-05	0.357035D-05	0.120599D-04
25	-0.480589D-05	0.227066D-04	-0.875222D-06	-0.256590D-05	-0.182736D-05
26	0.545840D-05	-0.999637D-05	-0.792552D-06	0.472796D-06	0.213389D-05
27	-0.450705D-05	-0.856587D-05	-0.269052D-06	0.101951D-05	0.141889D-05
28	-0.723592D-05	-0.158900D-05	-0.511964D-05	-0.562966D-05	-0.259126D-05
29	-0.219629D-05	-0.697875D-06	-0.138467D-05	-0.339925D-05	-0.106580D-04
30	-0.519198D-06	0.138029D-04	-0.358625D-06	0.166218D-05	0.241604D-05
31	-0.154614D-05	0.215188D-05	-0.572359D-06	-0.612326D-06	-0.107902D-06
32	-0.108440D-04	0.754947D-05	-0.108953D-05	-0.192423D-05	-0.137048D-05
33	-0.550409D-06	0.371333D-05	-0.195302D-07	0.407158D-06	0.157376D-05



34	-0.148318D-03	0.106511D-03	-0.195878D-04	0.183233D-05	0.251758D-04
35	-0.144461D-03	0.149641D-03	0.108369D-04	0.235123D-04	-0.427889D-04
36	-0.243837D-04	-0.293606D-04	0.412319D-06	0.138647D-05	-0.706259D-05
37	0.170757D-05	0.264823D-05	-0.414350D-05	-0.194330D-05	0.633448D-05
38	0.152270D-04	0.221765D-04	0.744149D-06	0.124132D-05	0.291172D-05
39	-0.202082D-03	0.211635D-03	-0.140561D-04	-0.299950D-04	0.341524D-04
40	-0.269109D-04	0.774106D-04	-0.231803D-04	-0.248652D-04	0.316588D-04
41	-0.386084D-04	-0.836329D-04	0.919413D-04	-0.765062D-05	-0.833172D-04
42	-0.315916D-04	0.253672D-04	-0.768676D-05	0.213639D-05	0.180433D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.505694D-04				
17	0.100018D-04	0.615491D-04			
18	-0.149584D-04	-0.320717D-04	0.447081D-03		
19	-0.295794D-05	-0.110857D-05	0.160730D-05	0.111912D-04	
20	-0.131998D-05	-0.249469D-05	-0.108987D-05	0.277560D-05	0.141286D-04
21	0.220171D-05	0.116354D-04	-0.167751D-04	-0.198661D-05	-0.522956D-05
22	-0.799431D-06	-0.172473D-05	0.162329D-05	0.126004D-05	0.574579D-05
23	-0.229123D-05	-0.107457D-05	-0.156636D-05	0.436217D-05	0.207625D-05
24	-0.149852D-05	-0.747806D-05	0.449594D-05	0.150450D-05	0.788855D-05
25	0.123178D-04	0.250391D-04	-0.446181D-04	-0.239957D-06	-0.246284D-05
26	-0.579401D-06	-0.163028D-05	0.251125D-05	0.202299D-05	0.627749D-05
27	-0.156458D-05	-0.273935D-05	-0.122341D-04	0.160842D-05	0.444295D-05
28	0.782091D-05	0.160566D-05	-0.939828D-06	-0.406816D-05	-0.104095D-05
29	0.229336D-05	0.106681D-04	-0.696264D-05	-0.149189D-05	-0.450217D-05
30	-0.447315D-05	-0.206477D-04	0.725757D-04	0.192693D-06	-0.130063D-05
31	0.812787D-06	0.175810D-05	-0.746857D-05	-0.106445D-05	-0.499832D-05
32	-0.107666D-05	0.299204D-05	0.184632D-05	-0.157660D-05	-0.124675D-05
33	-0.634957D-06	-0.168021D-05	-0.319965D-06	0.289692D-05	0.271256D-05
34	-0.344419D-04	0.311390D-04	-0.580311D-04	-0.746341D-05	0.943632D-06
35	-0.666967D-06	0.419604D-04	-0.113435D-03	-0.178639D-05	-0.836306D-05
36	0.309873D-05	0.139744D-04	-0.145311D-04	-0.996322D-06	0.221081D-05
37	-0.261708D-05	0.139118D-05	-0.489885D-05	-0.270009D-05	-0.583606D-06
38	0.116413D-05	-0.264219D-05	0.289443D-05	0.806676D-06	0.189792D-05
39	0.315008D-04	-0.574156D-04	-0.178053D-04	-0.309009D-04	0.337933D-04
40	-0.119572D-04	-0.356050D-04	0.491929D-04	0.116318D-04	-0.189970D-04
41	-0.932767D-04	0.483265D-04	0.228177D-03	0.173414D-04	0.320602D-05
42	0.163482D-05	-0.505709D-05	0.114882D-04	-0.367593D-06	0.124719D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
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21	0.513655D-04				
22	-0.542527D-05	0.215550D-04			
23	-0.397692D-06	0.131689D-05	0.437006D-04		
24	-0.394488D-05	0.284612D-05	0.108538D-04	0.616712D-04	
25	0.179157D-04	-0.120957D-05	-0.675410D-05	-0.274084D-04	0.217487D-03
26	-0.760617D-05	0.788741D-05	0.189944D-05	0.116611D-04	-0.151837D-04
27	-0.872549D-05	0.400287D-05	0.144441D-04	0.426069D-04	-0.512569D-04
28	0.165419D-05	-0.106074D-05	-0.764385D-05	-0.277396D-05	0.281119D-05
29	0.327587D-05	-0.225885D-05	-0.362150D-05	-0.121359D-04	0.632539D-05
30	-0.146318D-04	0.133795D-05	-0.650832D-08	0.326731D-05	-0.433266D-04
31	0.929448D-05	-0.688889D-05	-0.542994D-06	-0.363064D-05	0.705929D-05
32	0.638248D-05	-0.430570D-05	-0.108958D-04	-0.243254D-04	0.435572D-04
33	-0.322610D-05	0.311878D-05	0.284023D-05	-0.527268D-06	-0.103636D-04
34	0.200660D-04	-0.168564D-04	-0.628095D-04	-0.240375D-04	0.132782D-04
35	0.661755D-05	-0.127349D-04	0.200808D-04	-0.323584D-06	0.126334D-03
36	-0.715861D-05	0.665136D-05	0.687364D-05	-0.882028D-06	-0.668063D-05
37	-0.242972D-05	-0.265699D-05	-0.132517D-05	-0.353423D-05	0.407207D-05
38	0.329713D-06	0.204602D-05	-0.127391D-05	0.692162D-06	0.186316D-06
39	-0.367037D-04	-0.966344D-05	0.647853D-04	0.147834D-03	0.427186D-04
40	0.466466D-05	-0.454861D-05	-0.303111D-04	-0.820338D-04	0.110887D-03
41	0.186844D-03	-0.637287D-04	-0.583276D-04	0.630551D-04	0.265341D-03
42	-0.510218D-05	-0.106792D-04	0.424911D-05	0.116085D-04	-0.990058D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
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26	0.454234D-04				
27	0.374000D-04	0.389067D-03			
28	0.256097D-07	-0.181763D-06	0.388890D-04		
29	-0.137901D-05	-0.101977D-04	0.845471D-05	0.494197D-04	
30	0.303467D-06	0.105602D-04	-0.576751D-05	-0.173732D-04	0.180866D-03
31	-0.788901D-05	-0.783455D-05	0.367360D-06	0.100099D-04	-0.125915D-04
32	-0.153488D-04	-0.672076D-04	0.665054D-05	0.182929D-04	-0.280042D-04
33	-0.137011D-05	0.309374D-05	-0.101898D-04	-0.372509D-04	0.620887D-04
34	-0.107630D-04	-0.849490D-04	0.459695D-04	-0.379418D-05	0.253384D-04
35	-0.501782D-04	0.235128D-04	0.302027D-04	0.182766D-04	-0.738440D-04
36	-0.391558D-06	0.169961D-04	0.219895D-05	0.104549D-05	-0.240581D-04
37	0.298855D-05	0.109603D-04	0.111450D-05	0.107993D-05	0.805011D-05
38	0.191899D-05	0.729888D-05	-0.221233D-05	-0.171288D-06	0.496644D-05
39	0.248846D-04	-0.552365D-04	0.277180D-04	-0.143446D-04	-0.759574D-04
40	-0.291984D-04	-0.157782D-05	0.152324D-04	0.167485D-04	-0.941728D-04

41	-0.291558D-04	0.467609D-03	-0.749131D-04	-0.166884D-04	0.162709D-03
42	-0.445882D-05	0.571836D-05	-0.867320D-05	-0.677483D-05	0.392282D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.403397D-04				
32	0.190736D-04	0.174397D-03			
33	-0.287466D-04	-0.649361D-04	0.289358D-03		
34	0.222146D-04	0.375233D-04	0.853571D-04	0.232323D-01	
35	0.277129D-04	-0.352653D-04	0.177744D-04	-0.922880D-03	0.446847D-01
36	-0.537275D-07	-0.141315D-04	0.381095D-06	0.552936D-04	0.800991D-04
37	0.504144D-05	-0.406094D-05	0.787863D-05	0.659595D-04	0.141763D-04
38	0.137077D-05	0.319631D-05	0.130124D-05	0.208671D-04	-0.414949D-04
39	-0.145183D-06	-0.580306D-05	-0.803952D-04	-0.438391D-03	0.189440D-02
40	0.642330D-04	0.146701D-03	0.112957D-03	0.113045D-03	0.184541D-02
41	-0.724780D-04	-0.461837D-03	0.508131D-03	0.232467D-02	0.747724D-04
42	0.167644D-04	0.491521D-05	0.116136D-04	-0.111937D-03	-0.116220D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.935505D-03				
37	0.103383D-03	0.567524D-03			
38	-0.514533D-04	0.115407D-05	0.127095D-03		
39	0.324703D-03	-0.827809D-04	-0.286592D-04	0.675862D-01	
40	-0.194599D-03	0.475643D-04	-0.179035D-04	-0.518809D-02	0.560216D-01
41	0.424983D-03	-0.297951D-03	0.476990D-04	-0.235646D-02	-0.153124D-01
42	-0.556204D-04	0.645494D-03	0.850141D-04	-0.104284D-03	-0.199113D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.199466D+00	
42	-0.886609D-03	0.205399D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				

2	0.234	1.000			
3	-0.084	-0.172	1.000		
4	0.088	0.254	-0.116	1.000	
5	0.062	0.176	-0.090	0.228	1.000
6	-0.108	-0.168	0.181	-0.155	-0.169
7	-0.028	-0.007	-0.017	-0.018	-0.047
8	-0.012	-0.019	0.034	0.009	-0.015
9	-0.057	-0.015	0.049	-0.008	0.007
10	0.031	-0.014	-0.015	0.030	-0.034
11	0.050	0.030	0.026	-0.013	0.013
12	0.024	0.019	-0.039	0.027	0.005
13	-0.013	0.019	0.030	-0.034	-0.014
14	-0.023	0.037	0.023	-0.026	-0.009
15	-0.049	0.029	0.002	0.005	0.010
16	-0.008	0.000	0.011	0.010	0.018
17	0.040	-0.002	-0.018	0.005	0.019
18	0.004	0.028	0.010	0.017	-0.009
19	0.017	-0.009	-0.023	-0.011	0.003
20	-0.013	-0.005	-0.010	0.002	0.002
21	0.004	0.018	0.000	0.000	-0.003
22	-0.003	-0.019	0.019	-0.017	0.030
23	-0.024	-0.007	-0.038	-0.035	0.000
24	-0.006	0.036	-0.012	0.023	-0.006
25	0.017	-0.003	-0.021	-0.011	-0.023
26	-0.026	-0.035	0.014	0.010	0.004
27	-0.028	-0.036	-0.014	0.005	-0.015
28	-0.026	0.006	0.009	0.011	-0.005
29	0.042	0.009	0.020	-0.010	0.009
30	-0.014	0.006	-0.014	0.006	-0.022
31	0.036	0.037	0.008	-0.008	0.019
32	0.008	0.002	0.021	-0.040	-0.017
33	-0.006	-0.002	0.005	0.006	0.016
34	-0.017	-0.020	-0.041	-0.007	-0.006
35	0.002	0.006	0.029	-0.004	0.018
36	-0.014	-0.003	-0.001	0.004	0.019
37	-0.049	0.026	-0.002	-0.005	0.006
38	-0.013	-0.046	0.012	0.000	-0.013
39	-0.012	0.008	-0.003	0.019	0.002
40	0.004	-0.008	-0.046	-0.023	0.059
41	0.016	0.069	0.057	0.027	-0.018
42	-0.070	0.024	-0.016	-0.033	-0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.003	1.000			
8	0.021	-0.114	1.000		
9	-0.014	0.000	0.154	1.000	
10	0.010	0.019	-0.159	0.045	1.000
11	0.029	-0.014	-0.096	-0.021	-0.173
12	0.032	0.022	0.133	-0.095	0.113
13	0.003	0.004	0.011	-0.006	-0.030
14	-0.030	0.009	-0.004	-0.024	-0.047
15	0.014	-0.008	0.025	-0.010	-0.005
16	0.015	-0.003	0.034	-0.008	0.001
17	0.029	-0.003	-0.044	-0.017	-0.028
18	0.015	0.013	0.061	0.047	-0.003
19	0.062	0.049	0.001	0.000	-0.036
20	0.006	-0.009	-0.025	0.013	-0.020
21	-0.011	-0.016	-0.022	-0.004	0.041
22	0.015	-0.025	-0.007	0.000	-0.028
23	0.032	-0.004	0.033	-0.015	-0.033
24	0.025	-0.002	-0.005	-0.008	-0.023
25	0.023	0.027	-0.030	-0.069	0.030
26	0.036	-0.009	0.006	-0.013	-0.053
27	0.013	0.016	-0.021	0.004	0.004
28	-0.005	-0.014	0.006	0.067	0.057
29	-0.008	0.036	-0.016	-0.018	0.002
30	0.008	0.032	0.021	-0.009	-0.001
31	-0.045	-0.012	0.010	0.005	0.009
32	-0.002	-0.001	-0.015	-0.002	0.024
33	0.038	0.026	0.000	0.021	0.010
34	-0.010	-0.031	0.016	-0.005	0.047
35	-0.021	-0.003	-0.058	0.000	-0.014
36	0.020	-0.022	-0.035	-0.006	-0.006
37	0.004	0.015	-0.013	-0.043	0.031
38	-0.021	0.020	0.017	-0.033	-0.025
39	0.027	-0.018	-0.043	-0.015	0.032
40	0.024	0.031	-0.034	0.009	0.031
41	-0.019	-0.031	0.032	0.034	-0.011
42	-0.023	0.335	0.068	-0.051	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

11	12	13	14	15

11	1.000				
12	0.099	1.000			
13	0.036	0.008	1.000		
14	0.018	0.013	0.281	1.000	
15	-0.019	0.035	0.032	0.279	1.000
16	-0.022	0.040	-0.133	-0.167	-0.026
17	0.013	0.012	-0.040	-0.110	-0.184
18	0.001	-0.022	0.014	0.045	0.023
19	0.071	0.044	0.057	0.247	0.062
20	0.044	0.007	0.033	0.093	0.297
21	-0.022	0.028	0.002	-0.044	-0.037
22	0.000	-0.027	-0.001	0.050	0.054
23	0.043	0.025	0.145	0.210	0.048
24	0.055	-0.018	0.048	0.122	0.267
25	-0.012	0.057	-0.013	-0.047	-0.022
26	0.031	-0.055	-0.025	0.019	0.055
27	-0.009	-0.016	-0.003	0.014	0.013
28	-0.044	-0.009	-0.177	-0.242	-0.072
29	-0.012	-0.004	-0.042	-0.130	-0.264
30	-0.001	0.038	-0.006	0.033	0.031
31	-0.009	0.012	-0.019	-0.026	-0.003
32	-0.031	0.021	-0.018	-0.039	-0.018
33	-0.001	0.008	0.000	0.006	0.016
34	-0.037	0.026	-0.028	0.003	0.029
35	-0.026	0.026	0.011	0.030	-0.035
36	-0.030	-0.035	0.003	0.012	-0.040
37	0.003	0.004	-0.038	-0.022	0.046
38	0.051	0.073	0.014	0.030	0.045
39	-0.029	0.030	-0.012	-0.031	0.023
40	-0.004	0.012	-0.021	-0.028	0.023
41	-0.003	-0.007	0.044	-0.005	-0.032
42	-0.026	0.021	-0.037	0.013	0.069

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.179	1.000			
18	-0.099	-0.193	1.000		
19	-0.124	-0.042	0.023	1.000	
20	-0.049	-0.085	-0.014	0.221	1.000
21	0.043	0.207	-0.111	-0.083	-0.194
22	-0.024	-0.047	0.017	0.081	0.329

23	-0.049	-0.021	-0.011	0.197	0.084
24	-0.027	-0.121	0.027	0.057	0.267
25	0.117	0.216	-0.143	-0.005	-0.044
26	-0.012	-0.031	0.018	0.090	0.248
27	-0.011	-0.018	-0.029	0.024	0.060
28	0.176	0.033	-0.007	-0.195	-0.044
29	0.046	0.193	-0.047	-0.063	-0.170
30	-0.047	-0.196	0.255	0.004	-0.026
31	0.018	0.035	-0.056	-0.050	-0.209
32	-0.011	0.029	0.007	-0.036	-0.025
33	-0.005	-0.013	-0.001	0.051	0.042
34	-0.032	0.026	-0.018	-0.015	0.002
35	0.000	0.025	-0.025	-0.003	-0.011
36	0.014	0.058	-0.022	-0.010	0.019
37	-0.015	0.007	-0.010	-0.034	-0.007
38	0.015	-0.030	0.012	0.021	0.045
39	0.017	-0.028	-0.003	-0.036	0.035
40	-0.007	-0.019	0.010	0.015	-0.021
41	-0.029	0.014	0.024	0.012	0.002
42	0.005	-0.014	0.012	-0.002	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.163	1.000			
23	-0.008	0.043	1.000		
24	-0.070	0.078	0.209	1.000	
25	0.170	-0.018	-0.069	-0.237	1.000
26	-0.157	0.252	0.043	0.220	-0.153
27	-0.062	0.044	0.111	0.275	-0.176
28	0.037	-0.037	-0.185	-0.057	0.031
29	0.065	-0.069	-0.078	-0.220	0.061
30	-0.152	0.021	0.000	0.031	-0.218
31	0.204	-0.234	-0.013	-0.073	0.075
32	0.067	-0.070	-0.125	-0.235	0.224
33	-0.026	0.039	0.025	-0.004	-0.041
34	0.018	-0.024	-0.062	-0.020	0.006
35	0.004	-0.013	0.014	0.000	0.041
36	-0.033	0.047	0.034	-0.004	-0.015
37	-0.014	-0.024	-0.008	-0.019	0.012
38	0.004	0.039	-0.017	0.008	0.001
39	-0.020	-0.008	0.038	0.072	0.011

40	0.003	-0.004	-0.019	-0.044	0.032
41	0.058	-0.031	-0.020	0.018	0.040
42	-0.016	-0.051	0.014	0.033	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.281	1.000			
28	0.001	-0.001	1.000		
29	-0.029	-0.074	0.193	1.000	
30	0.003	0.040	-0.069	-0.184	1.000
31	-0.184	-0.063	0.009	0.224	-0.147
32	-0.172	-0.258	0.081	0.197	-0.158
33	-0.012	0.009	-0.096	-0.312	0.271
34	-0.010	-0.028	0.048	-0.004	0.012
35	-0.035	0.006	0.023	0.012	-0.026
36	-0.002	0.028	0.012	0.005	-0.058
37	0.019	0.023	0.008	0.006	0.025
38	0.025	0.033	-0.031	-0.002	0.033
39	0.014	-0.011	0.017	-0.008	-0.022
40	-0.018	0.000	0.010	0.010	-0.030
41	-0.010	0.053	-0.027	-0.005	0.027
42	-0.015	0.006	-0.031	-0.021	0.064

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.227	1.000			
33	-0.266	-0.289	1.000		
34	0.023	0.019	0.033	1.000	
35	0.021	-0.013	0.005	-0.029	1.000
36	0.000	-0.035	0.001	0.012	0.012
37	0.033	-0.013	0.019	0.018	0.003
38	0.019	0.021	0.007	0.012	-0.017
39	0.000	-0.002	-0.018	-0.011	0.034
40	0.043	0.047	0.028	0.003	0.037
41	-0.026	-0.078	0.067	0.034	0.001
42	0.058	0.008	0.015	-0.016	-0.012



ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	1.000				
37	0.142	1.000			
38	-0.149	0.004	1.000		
39	0.041	-0.013	-0.010	1.000	
40	-0.027	0.008	-0.007	-0.084	1.000
41	0.031	-0.028	0.009	-0.020	-0.145
42	-0.040	0.598	0.166	-0.009	-0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	1.000	
42	-0.044	1.000

#### TECHNICAL 8 OUTPUT

#### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.014	40
200	1.004	37
300	1.001	30
400	1.005	36
500	1.005	37
600	1.004	37
700	1.001	37
800	1.002	8
900	1.004	37
1000	1.003	42

Linear effects, improvement in physical health

2	4	166
3	65	74 80 30
4	84	22
5	205	
6	228	
7	93	
8	106	144 165 71 170 173 192 72 50
9	40	108
11	107	83 181 61 75 68
12	69	174 206 226 81
13	162	
16	92	154
19	114	
20	145	2
22	116	
23	36	156 169 142
24	152	
26	98	
28	122	202
30	178	
32	6	
46	24	
59	204	
62	125	
64	209	
108	217	
216	110	
223	100	

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns	4
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## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15		1.000			
KES15	0.971	0.971	0.971		
CHOICE15	0.963	0.963	0.963	0.963	
BULLY15	0.966	0.966	0.966	0.963	0.966
PRESS15	0.966	0.966	0.966	0.963	0.966
DUTIES15	0.966	0.966	0.966	0.963	0.966
PRAFAC	1.000	1.000	0.971	0.963	0.966

	Covariance Coverage		
	PRESS15	DUTIES15	PRAFAC
PRESS15	0.966		
DUTIES15	0.966	0.966	
PRAFAC	0.966	0.966	1.000

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

#### UNIVARIATE SAMPLE STATISTICS

##### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15	0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15	0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15	0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312

	1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15		0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
	1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15		0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
	1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	
PRAFAC		-0.173	0.219	-2.338	1.75%	-1.489	-0.520	-0.258
	57.000	1.361	-0.662	2.338	1.75%	0.080	0.848	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-27.990 21.351

Posterior Predictive P-Value 0.490

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.824	0.119	0.000	0.593	1.071	*
CHOICE15	-0.048	0.033	0.071	-0.112	0.015	
BULLY15	0.049	0.057	0.193	-0.061	0.158	
DUTIES15	0.038	0.038	0.167	-0.037	0.113	
PRESS15	-0.001	0.036	0.491	-0.072	0.069	

KES15	0.166	0.053	0.003	0.055	0.265	*
KES15 WITH						
PHY15	0.070	0.009	0.000	0.054	0.086	*
CHOICE15	-0.135	0.025	0.000	-0.187	-0.089	*
BULLY15	0.127	0.015	0.000	0.098	0.156	*
PRESS15	0.206	0.024	0.000	0.163	0.254	*
DUTIES15	-0.205	0.022	0.000	-0.248	-0.164	*
PHY15 WITH						
CHOICE15	-0.033	0.012	0.003	-0.057	-0.010	*
BULLY15	0.013	0.007	0.049	-0.002	0.027	
PRESS15	0.015	0.012	0.102	-0.008	0.039	
DUTIES15	-0.008	0.010	0.221	-0.030	0.012	
CHOICE15 WITH						
BULLY15	-0.132	0.021	0.000	-0.176	-0.095	*
PRESS15	-0.183	0.034	0.000	-0.253	-0.121	*
DUTIES15	0.160	0.031	0.000	0.102	0.224	*
BULLY15 WITH						
PRESS15	0.178	0.021	0.000	0.138	0.220	*
DUTIES15	-0.139	0.019	0.000	-0.179	-0.102	*
PRESS15 WITH						
DUTIES15	-0.242	0.030	0.000	-0.300	-0.182	*
Means						
PHY15	0.000	0.010	0.497	-0.020	0.020	
KES15	0.001	0.021	0.477	-0.041	0.044	
CHOICE15	-0.001	0.030	0.480	-0.059	0.057	
BULLY15	0.002	0.019	0.465	-0.037	0.038	
PRESS15	0.003	0.031	0.472	-0.059	0.064	
DUTIES15	0.001	0.027	0.492	-0.052	0.052	
Variances						
PHY15	0.154	0.006	0.000	0.144	0.166	*
KES15	0.614	0.023	0.000	0.570	0.662	*
CHOICE15	1.251	0.050	0.000	1.162	1.350	*
BULLY15	0.475	0.018	0.000	0.441	0.510	*
PRESS15	1.207	0.047	0.000	1.120	1.297	*
DUTIES15	0.974	0.038	0.000	0.906	1.055	*

Between Level

PHYCAT16 ON						
PRAFAC	-0.050	0.040	0.109	-0.126	0.027	
Thresholds						
PHYCAT16\$1	-0.390	0.042	0.000	-0.477	-0.308	*
Residual Variances						
PHYCAT16	0.007	0.009	0.000	0.001	0.035	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within Level				Lower 2.5%	Upper 2.5%	
PHYCAT16 ON						
PHY15	0.301	0.040	0.000	0.221	0.381	*
CHOICE15	-0.050	0.034	0.071	-0.117	0.016	
BULLY15	0.031	0.036	0.193	-0.038	0.102	
DUTIES15	0.034	0.035	0.167	-0.033	0.102	
PRESS15	-0.001	0.037	0.491	-0.073	0.070	
KES15	0.121	0.038	0.003	0.040	0.192	*
KES15 WITH						
PHY15	0.228	0.026	0.000	0.179	0.277	*
CHOICE15	-0.155	0.027	0.000	-0.210	-0.101	*
BULLY15	0.235	0.025	0.000	0.183	0.284	*
PRESS15	0.240	0.025	0.000	0.193	0.293	*
DUTIES15	-0.265	0.025	0.000	-0.313	-0.215	*
PHY15 WITH						
CHOICE15	-0.074	0.027	0.003	-0.128	-0.024	*
BULLY15	0.046	0.027	0.049	-0.008	0.099	
PRESS15	0.034	0.027	0.102	-0.018	0.088	
DUTIES15	-0.022	0.027	0.221	-0.076	0.031	
CHOICE15 WITH						
BULLY15	-0.172	0.025	0.000	-0.223	-0.125	*
PRESS15	-0.149	0.027	0.000	-0.202	-0.099	*

DUTIES15	0.145	0.027	0.000	0.093	0.200	*
BULLY15 WITH						
PRESS15	0.236	0.025	0.000	0.186	0.283	*
DUTIES15	-0.205	0.026	0.000	-0.257	-0.152	*
PRESS15 WITH						
DUTIES15	-0.224	0.026	0.000	-0.272	-0.170	*
Means						
PHY15	-0.001	0.026	0.497	-0.051	0.052	
KES15	0.001	0.027	0.477	-0.052	0.056	
CHOICE15	-0.001	0.027	0.480	-0.054	0.050	
BULLY15	0.003	0.027	0.465	-0.053	0.055	
PRESS15	0.003	0.028	0.472	-0.054	0.058	
DUTIES15	0.001	0.027	0.492	-0.052	0.052	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON						
PRAFAC	-0.558	0.355	0.109	-0.958	0.397	
Thresholds						
PHYCAT16\$1	-3.514	1.795	0.000	-8.769	-1.724	*
Residual Variances						
PHYCAT16	0.680	0.276	0.000	0.082	0.999	*
R-SQUARE						
Within Level						
Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		

PHYCAT16	0.136	0.027	0.000	0.088	0.195
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Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.320	0.276	0.000	0.001	0.918

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0



LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA		
	PRESS15	DUTIES15
	<u>5</u>	<u>6</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU  
PHYCAT1 6  
———  
36

NU  
PHYCAT1 6      PRAFAC  
———      ———  
0              0

LAMBDA  
PHYCAT1 6      PRAFAC  
———      ———  
PHYCAT1 6      0  
PRAFAC      0

THETA  
PHYCAT1 6      PRAFAC  
———      ———  
PHYCAT1 6      0  
PRAFAC      0

ALPHA  
PHYCAT1 6      PRAFAC  
———      ———  
0              0

BETA  
PHYCAT1 6      PRAFAC  
———      ———  
PHYCAT1 6      0      34  
PRAFAC      0      0

PSI  
PHYCAT1 6      PRAFAC

PHYCAT16	<u>35</u>	<u>0</u>
PRAFAC	0	0

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000

CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>				
PHY15	0.000	<u>0.000</u>			
KES15	0.000	0.000	<u>0.000</u>		
CHOICE15	0.000	0.000	0.000	<u>0.000</u>	
BULLY15	0.000	0.000	0.000	0.000	<u>0.000</u>
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA	
PRESS15	DUTIES15
<u>0.000</u>	
DUTIES15	<u>0.000</u>

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000

BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.604	
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU

PHYCAT16
-0.311

NU		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
	0.000	0.000
LAMBDA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	1.000	0.000
PRAFAC	0.000	1.000
THETA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	0.000	
PRAFAC	0.000	0.000
ALPHA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
	0.000	0.000
BETA		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PRAFAC	0.000	0.000
PSI		
	PHYCAT16	PRAFAC
	<hr/>	<hr/>
PHYCAT16	1.000	
PRAFAC	0.000	0.480

PRIORS FOR ALL PARAMETERS

PRIOR MEAN

PRIOR VARIANCE

PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

#### ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1	2	3	4	5
_____	_____	_____	_____	_____



```

1  0.108202D-03
2  0.520260D-04  0.459835D-03
3  -0.164374D-04 -0.859966D-04  0.879573D-03
4  0.739645D-05  0.100545D-03 -0.941884D-04  0.355344D-03
5  0.174757D-04  0.152264D-03 -0.137242D-03  0.138161D-03  0.952070D-03
6  -0.221231D-04 -0.152978D-03  0.142969D-03 -0.882361D-04 -0.183816D-03
7  -0.829533D-05 -0.426381D-04  0.512133D-04  0.727148D-06 -0.644874D-04
8  0.412277D-05  0.517346D-04  0.163539D-04  0.129475D-04  0.142186D-04
9  -0.949745D-05  0.184300D-06  0.237654D-04 -0.277036D-04  0.429866D-05
10  0.686255D-05 -0.309444D-04  0.326599D-04  0.853406D-05 -0.175653D-04
11  -0.924988D-05 -0.328688D-04 -0.211058D-04 -0.286981D-04  0.424169D-04
12  -0.714377D-05 -0.402845D-05  0.616120D-05  0.930526D-05 -0.339732D-04
13  -0.189435D-05 -0.392722D-05  0.303006D-05 -0.540336D-06 -0.824684D-05
14  0.252894D-05  0.227999D-05 -0.670076D-05  0.214988D-05 -0.805231D-05
15  -0.170226D-06  0.663639D-05 -0.460839D-04  0.265448D-05 -0.660765D-05
16  0.127439D-05  0.608506D-05  0.986902D-05 -0.570990D-05 -0.819924D-05
17  0.681203D-07 -0.157933D-04  0.832492D-05 -0.181672D-04 -0.403234D-05
18  -0.505410D-05 -0.349826D-04  0.579785D-04  0.185109D-04 -0.412602D-04
19  0.729180D-07 -0.191661D-05 -0.448039D-05  0.748823D-05  0.590161D-05
20  -0.397484D-05  0.439244D-05 -0.164643D-04  0.554238D-05 -0.353603D-06
21  -0.553779D-05  0.754269D-05  0.945741D-05  0.234896D-05  0.152251D-04
22  0.602548D-05  0.144195D-05 -0.180234D-04  0.730613D-06  0.191109D-04
23  0.103765D-05  0.500084D-05 -0.194907D-04  0.105747D-04  0.236292D-04
24  0.491609D-05  0.208596D-04 -0.438305D-04 -0.853681D-05  0.126713D-05
25  -0.644681D-05 -0.464800D-05 -0.371094D-05 -0.118136D-04 -0.351045D-04
26  -0.221103D-05  0.195536D-04 -0.127713D-04  0.803394D-05  0.855512D-05
27  -0.783897D-05  0.172975D-04 -0.312933D-04 -0.107114D-04  0.329789D-04
28  0.378642D-05 -0.332963D-05 -0.326881D-05 -0.193737D-05 -0.229934D-05
29  0.425994D-05  0.180073D-04  0.269734D-04  0.285738D-06  0.166129D-04
30  -0.204954D-05  0.343948D-04 -0.310416D-05  0.193238D-04 -0.740422D-05
31  0.154229D-06  0.586513D-05  0.339854D-04 -0.758992D-06 -0.364144D-05
32  -0.133407D-04 -0.184422D-04  0.224418D-04  0.189116D-04 -0.160011D-04
33  0.160199D-04  0.886064D-05 -0.797929D-04  0.108899D-04  0.610569D-05
34  0.914665D-05 -0.738534D-05  0.496513D-05  0.210628D-05  0.159689D-04
35  -0.333211D-05 -0.468215D-05  0.168178D-06 -0.177627D-05 -0.145070D-04
36  -0.425320D-05  0.517778D-05 -0.401964D-05 -0.823062D-05  0.159931D-05

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ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.716046D-03				
7	0.416027D-04	0.142486D-01			
8	-0.350258D-04	-0.100937D-02	0.285341D-02		

9	-0.285449D-04	-0.222820D-04	0.290635D-04	0.106023D-02	
10	0.314117D-04	-0.118182D-03	-0.404294D-03	0.235717D-03	0.320870D-02
11	0.102761D-04	0.120670D-03	-0.365621D-03	0.582287D-04	-0.362047D-03
12	-0.719906D-05	0.642151D-04	0.482293D-03	-0.147818D-03	0.256274D-03
13	0.501519D-05	0.258455D-04	0.161854D-04	0.318252D-05	0.621272D-05
14	-0.354449D-06	0.426626D-04	-0.236067D-05	-0.891627D-05	0.859058D-07
15	-0.150299D-04	0.116791D-03	0.325799D-04	-0.245369D-06	-0.307718D-04
16	-0.332502D-05	0.268904D-04	-0.189995D-04	-0.192231D-05	0.307759D-04
17	-0.211593D-05	-0.872856D-04	0.546436D-05	0.126587D-04	-0.534607D-05
18	0.367830D-04	0.155985D-03	-0.171833D-03	-0.153756D-04	0.465891D-04
19	0.317418D-05	0.368533D-04	-0.156468D-04	-0.717224D-05	0.765467D-05
20	0.179438D-05	0.743518D-04	-0.590271D-05	-0.786631D-05	-0.931581D-05
21	-0.285377D-04	-0.113030D-03	0.357008D-04	0.544848D-05	0.168238D-04
22	-0.889224D-06	0.934807D-05	0.309792D-05	0.122621D-04	0.249072D-04
23	-0.966797D-05	0.309583D-04	0.464715D-05	0.152137D-05	-0.300977D-04
24	-0.767649D-05	-0.152894D-04	-0.616826D-04	0.218577D-05	-0.242222D-04
25	0.446485D-04	0.215490D-04	-0.679861D-05	0.295894D-04	0.769762D-05
26	-0.652616D-06	0.419732D-05	-0.142526D-04	-0.157211D-04	0.507025D-04
27	0.341823D-04	-0.148960D-03	-0.257409D-04	-0.117483D-04	-0.667189D-05
28	0.194608D-06	-0.283183D-04	0.416958D-05	-0.404706D-05	-0.887429D-05
29	-0.262468D-05	0.351010D-04	-0.461968D-05	-0.472388D-05	-0.780417D-05
30	-0.160329D-04	-0.354966D-04	0.577406D-04	0.287121D-05	0.233260D-04
31	-0.122785D-05	-0.967299D-04	0.103238D-04	0.229215D-05	0.309724D-05
32	0.192540D-04	-0.766248D-07	0.114536D-04	-0.676662D-05	0.248486D-04
33	0.809003D-05	0.259294D-04	0.334998D-04	-0.647986D-05	0.222997D-04
34	-0.455757D-05	-0.113954D-03	-0.409401D-06	0.345921D-04	0.338957D-04
35	0.552355D-05	0.359554D-04	0.109086D-04	-0.254502D-05	0.223726D-05
36	0.183717D-04	-0.908908D-03	-0.779187D-04	0.483583D-04	0.147827D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.131626D-02				
12	0.195249D-03	0.145632D-02			
13	0.514093D-05	-0.311089D-05	0.317444D-04		
14	-0.265432D-05	-0.963989D-05	0.138068D-04	0.724647D-04	
15	0.107627D-04	0.341945D-04	0.344249D-05	0.686086D-04	0.541896D-03
16	0.716084D-05	0.112515D-04	-0.430461D-05	-0.138122D-04	-0.168869D-04
17	0.785695D-06	-0.270876D-04	0.405182D-05	-0.195595D-04	-0.129142D-03
18	-0.306152D-05	-0.678571D-04	0.713231D-05	0.722691D-05	0.305749D-04
19	-0.300486D-05	-0.594009D-05	0.296880D-05	0.159397D-04	0.162992D-04
20	0.123605D-04	0.214845D-04	0.420505D-05	0.118970D-04	0.935761D-04
21	-0.170482D-04	-0.625104D-05	0.961233D-06	-0.256751D-05	-0.272941D-04

22	0.120453D-04	-0.211072D-05	0.266330D-05	0.375781D-05	0.161663D-04
23	-0.117507D-04	-0.138622D-04	0.389805D-05	0.243360D-04	0.215858D-04
24	0.322549D-04	-0.789510D-05	-0.281780D-05	0.183093D-04	0.184825D-03
25	-0.301795D-04	-0.201678D-04	-0.495690D-05	-0.932066D-05	-0.440732D-04
26	0.298229D-04	0.330401D-04	0.175623D-05	-0.115872D-07	0.239867D-04
27	-0.743050D-05	0.868618D-05	-0.316880D-05	0.427892D-05	0.183474D-04
28	0.564952D-05	-0.940057D-05	-0.217535D-05	-0.229202D-04	-0.241810D-04
29	0.150489D-04	-0.302229D-06	-0.271769D-05	-0.165250D-04	-0.178839D-03
30	-0.156907D-04	-0.105412D-05	0.141094D-06	0.578981D-05	0.430782D-04
31	-0.107379D-05	-0.628210D-05	-0.408817D-06	-0.384564D-05	-0.318111D-04
32	-0.303755D-04	0.263437D-04	-0.209417D-05	0.406247D-05	-0.377225D-04
33	-0.329939D-04	0.108911D-04	0.128020D-05	0.590520D-05	0.552412D-04
34	-0.587434D-04	-0.661673D-05	-0.492009D-05	-0.478912D-05	-0.319065D-04
35	-0.144357D-04	0.932860D-05	0.519200D-06	-0.234495D-05	0.132409D-05
36	-0.286551D-04	-0.950060D-04	0.607279D-05	-0.387986D-05	-0.243007D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.140170D-03				
17	0.650777D-04	0.625609D-03			
18	-0.614881D-04	-0.270631D-03	0.245177D-02		
19	-0.132653D-04	-0.105990D-04	0.916271D-05	0.523435D-04	
20	-0.139176D-04	-0.817485D-04	0.470982D-04	0.290944D-04	0.215676D-03
21	0.135319D-04	0.118720D-03	-0.286104D-03	-0.102867D-04	-0.553182D-04
22	0.197402D-05	-0.179269D-04	0.452998D-04	0.847349D-05	0.865268D-04
23	-0.229751D-04	-0.136507D-04	0.218938D-04	0.229207D-04	0.116924D-04
24	-0.960784D-05	-0.118256D-03	0.604622D-04	0.124600D-04	0.914506D-04
25	0.358221D-04	0.247344D-03	-0.395221D-03	-0.847087D-05	-0.436850D-04
26	0.602462D-05	-0.478750D-04	0.332843D-04	0.633382D-05	0.925654D-04
27	-0.981694D-05	-0.916012D-04	0.149680D-03	0.166743D-04	0.441873D-04
28	0.203006D-04	0.157389D-04	-0.332080D-04	-0.160109D-04	-0.109978D-04
29	0.161186D-04	0.101309D-03	-0.431841D-04	-0.680667D-05	-0.841988D-04
30	-0.227529D-04	-0.252448D-03	0.345835D-03	0.473627D-05	0.441851D-04
31	0.218677D-05	0.315657D-04	-0.668537D-04	-0.741879D-05	-0.853115D-04
32	0.137258D-04	0.824763D-04	-0.116365D-03	-0.252037D-05	-0.382707D-04
33	-0.142820D-04	-0.411883D-04	0.365035D-04	0.830301D-05	0.762331D-04
34	-0.134367D-04	0.139311D-04	-0.355132D-04	0.476939D-05	-0.160333D-04
35	-0.988851D-06	0.566563D-05	-0.473332D-05	0.195406D-05	0.137508D-05
36	0.162411D-04	0.147348D-04	-0.676085D-04	-0.744284D-05	-0.884337D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.425445D-03				
22	-0.100074D-03	0.319823D-03			
23	-0.507426D-05	0.372290D-05	0.140543D-03		
24	-0.431857D-04	0.304613D-04	0.604401D-04	0.575115D-03	
25	0.166387D-03	-0.214336D-04	-0.335548D-04	-0.163535D-03	0.116607D-02
26	-0.735109D-04	0.115580D-03	0.938267D-05	0.138023D-03	-0.160480D-03
27	-0.557643D-04	0.374276D-04	0.321761D-04	0.390627D-03	-0.325344D-03
28	-0.621895D-05	-0.836587D-05	-0.332766D-04	-0.194517D-04	-0.497040D-05
29	0.108309D-04	-0.285291D-04	-0.166237D-04	-0.138216D-03	0.443836D-04
30	-0.139142D-03	0.256037D-04	0.412745D-05	0.534694D-04	-0.255939D-03
31	0.637201D-04	-0.997464D-04	0.648613D-05	-0.664365D-04	0.440876D-04
32	0.481581D-04	-0.292744D-04	-0.102169D-04	-0.203897D-03	0.217312D-03
33	-0.456479D-05	0.398244D-04	-0.561285D-05	0.823996D-04	-0.102818D-03
34	0.807850D-05	-0.176960D-04	-0.452826D-06	-0.301011D-05	0.615918D-04
35	0.251272D-05	0.126830D-06	-0.140592D-05	-0.139430D-05	-0.540305D-05
36	-0.707124D-05	0.223838D-04	-0.129299D-04	0.228890D-04	0.452415D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.428185D-03				
27	0.337196D-03	0.216271D-02			
28	0.196447D-05	-0.129664D-04	0.108523D-03		
29	-0.583761D-04	-0.856570D-04	0.521453D-04	0.472069D-03	
30	0.342187D-04	0.575469D-04	-0.288190D-04	-0.134479D-03	0.979189D-03
31	-0.102690D-03	-0.765404D-04	0.163943D-04	0.114165D-03	-0.105928D-03
32	-0.167034D-03	-0.440713D-03	0.115537D-04	0.179261D-03	-0.210380D-03
33	0.695002D-04	0.677726D-04	-0.130264D-04	-0.287403D-03	0.244542D-03
34	0.141974D-04	-0.242196D-04	-0.741925D-06	0.719928D-05	0.822537D-05
35	-0.657093D-05	-0.409331D-05	0.286135D-05	-0.214650D-05	-0.918504D-05
36	-0.119793D-04	-0.113257D-04	-0.825144D-05	-0.675121D-05	0.248723D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.368039D-03				
32	0.165789D-03	0.925398D-03			
33	-0.242401D-03	-0.367388D-03	0.142327D-02		
34	0.239661D-04	0.237615D-06	-0.438657D-04	0.156014D-02	
35	-0.197356D-05	0.539932D-05	-0.242321D-05	-0.236137D-04	0.871315D-04

36 -0.408571D-05 -0.328592D-04 -0.238602D-04 -0.189513D-03 -0.163444D-04

# ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

36

36 0.173347D-02

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.233	1.000			
3	-0.053	-0.135	1.000		
4	0.038	0.249	-0.168	1.000	
5	0.054	0.230	-0.150	0.238	1.000
6	-0.079	-0.267	0.180	-0.175	-0.223
7	-0.007	-0.017	0.014	0.000	-0.018
8	0.007	0.045	0.010	0.013	0.009
9	-0.028	0.000	0.025	-0.045	0.004
10	0.012	-0.025	0.019	0.008	-0.010
11	-0.025	-0.042	-0.020	-0.042	0.038
12	-0.018	-0.005	0.005	0.013	-0.029
13	-0.032	-0.033	0.018	-0.005	-0.047
14	0.029	0.012	-0.027	0.013	-0.031
15	-0.001	0.013	-0.067	0.006	-0.009
16	0.010	0.024	0.028	-0.026	-0.022
17	0.000	-0.029	0.011	-0.039	-0.005
18	-0.010	-0.033	0.039	0.020	-0.027
19	0.001	-0.012	-0.021	0.055	0.026
20	-0.026	0.014	-0.038	0.020	-0.001
21	-0.026	0.017	0.015	0.006	0.024
22	0.032	0.004	-0.034	0.002	0.035
23	0.008	0.020	-0.055	0.047	0.065
24	0.020	0.041	-0.062	-0.019	0.002
25	-0.018	-0.006	-0.004	-0.018	-0.033
26	-0.010	0.044	-0.021	0.021	0.013
27	-0.016	0.017	-0.023	-0.012	0.023
28	0.035	-0.015	-0.011	-0.010	-0.007
29	0.019	0.039	0.042	0.001	0.025
30	-0.006	0.051	-0.003	0.033	-0.008
31	0.001	0.014	0.060	-0.002	-0.006
32	-0.042	-0.028	0.025	0.033	-0.017

33	0.041	0.011	-0.071	0.015	0.005
34	0.022	-0.009	0.004	0.003	0.013
35	-0.034	-0.023	0.001	-0.010	-0.050
36	-0.010	0.006	-0.003	-0.010	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.013	1.000			
8	-0.025	-0.158	1.000		
9	-0.033	-0.006	0.017	1.000	
10	0.021	-0.017	-0.134	0.128	1.000
11	0.011	0.028	-0.189	0.049	-0.176
12	-0.007	0.014	0.237	-0.119	0.119
13	0.033	0.038	0.054	0.017	0.019
14	-0.002	0.042	-0.005	-0.032	0.000
15	-0.024	0.042	0.026	0.000	-0.023
16	-0.010	0.019	-0.030	-0.005	0.046
17	-0.003	-0.029	0.004	0.016	-0.004
18	0.028	0.026	-0.065	-0.010	0.017
19	0.016	0.043	-0.040	-0.030	0.019
20	0.005	0.042	-0.008	-0.016	-0.011
21	-0.052	-0.046	0.032	0.008	0.014
22	-0.002	0.004	0.003	0.021	0.025
23	-0.030	0.022	0.007	0.004	-0.045
24	-0.012	-0.005	-0.048	0.003	-0.018
25	0.049	0.005	-0.004	0.027	0.004
26	-0.001	0.002	-0.013	-0.023	0.043
27	0.027	-0.027	-0.010	-0.008	-0.003
28	0.001	-0.023	0.007	-0.012	-0.015
29	-0.005	0.014	-0.004	-0.007	-0.006
30	-0.019	-0.010	0.035	0.003	0.013
31	-0.002	-0.042	0.010	0.004	0.003
32	0.024	0.000	0.007	-0.007	0.014
33	0.008	0.006	0.017	-0.005	0.010
34	-0.004	-0.024	0.000	0.027	0.015
35	0.022	0.032	0.022	-0.008	0.004
36	0.016	-0.183	-0.035	0.036	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

11	12	13	14	15
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11	1.000				
12	0.141	1.000			
13	0.025	-0.014	1.000		
14	-0.009	-0.030	0.288	1.000	
15	0.013	0.038	0.026	0.346	1.000
16	0.017	0.025	-0.065	-0.137	-0.061
17	0.001	-0.028	0.029	-0.092	-0.222
18	-0.002	-0.036	0.026	0.017	0.027
19	-0.011	-0.022	0.073	0.259	0.097
20	0.023	0.038	0.051	0.095	0.274
21	-0.023	-0.008	0.008	-0.015	-0.057
22	0.019	-0.003	0.026	0.025	0.039
23	-0.027	-0.031	0.058	0.241	0.078
24	0.037	-0.009	-0.021	0.090	0.331
25	-0.024	-0.015	-0.026	-0.032	-0.055
26	0.040	0.042	0.015	0.000	0.050
27	-0.004	0.005	-0.012	0.011	0.017
28	0.015	-0.024	-0.037	-0.258	-0.100
29	0.019	0.000	-0.022	-0.089	-0.354
30	-0.014	-0.001	0.001	0.022	0.059
31	-0.002	-0.009	-0.004	-0.024	-0.071
32	-0.028	0.023	-0.012	0.016	-0.053
33	-0.024	0.008	0.006	0.018	0.063
34	-0.041	-0.004	-0.022	-0.014	-0.035
35	-0.043	0.026	0.010	-0.030	0.006
36	-0.019	-0.060	0.026	-0.011	-0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.220	1.000			
18	-0.105	-0.219	1.000		
19	-0.155	-0.059	0.026	1.000	
20	-0.080	-0.223	0.065	0.274	1.000
21	0.055	0.230	-0.280	-0.069	-0.183
22	0.009	-0.040	0.051	0.065	0.329
23	-0.164	-0.046	0.037	0.267	0.067
24	-0.034	-0.197	0.051	0.072	0.260
25	0.089	0.290	-0.234	-0.034	-0.087
26	0.025	-0.092	0.032	0.042	0.305
27	-0.018	-0.079	0.065	0.050	0.065

28	0.165	0.060	-0.064	-0.212	-0.072
29	0.063	0.186	-0.040	-0.043	-0.264
30	-0.061	-0.323	0.223	0.021	0.096
31	0.010	0.066	-0.070	-0.053	-0.303
32	0.038	0.108	-0.077	-0.011	-0.086
33	-0.032	-0.044	0.020	0.030	0.138
34	-0.029	0.014	-0.018	0.017	-0.028
35	-0.009	0.024	-0.010	0.029	0.010
36	0.033	0.014	-0.033	-0.025	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.271	1.000			
23	-0.021	0.018	1.000		
24	-0.087	0.071	0.213	1.000	
25	0.236	-0.035	-0.083	-0.200	1.000
26	-0.172	0.312	0.038	0.278	-0.227
27	-0.058	0.045	0.058	0.350	-0.205
28	-0.029	-0.045	-0.269	-0.078	-0.014
29	0.024	-0.073	-0.065	-0.265	0.060
30	-0.216	0.046	0.011	0.071	-0.240
31	0.161	-0.291	0.029	-0.144	0.067
32	0.077	-0.054	-0.028	-0.279	0.209
33	-0.006	0.059	-0.013	0.091	-0.080
34	0.010	-0.025	-0.001	-0.003	0.046
35	0.013	0.001	-0.013	-0.006	-0.017
36	-0.008	0.030	-0.026	0.023	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.350	1.000			
28	0.009	-0.027	1.000		
29	-0.130	-0.085	0.230	1.000	
30	0.053	0.040	-0.088	-0.198	1.000
31	-0.259	-0.086	0.082	0.274	-0.176
32	-0.265	-0.312	0.036	0.271	-0.221
33	0.089	0.039	-0.033	-0.351	0.207
34	0.017	-0.013	-0.002	0.008	0.007



35	-0.034	-0.009	0.029	-0.011	-0.031
36	-0.014	-0.006	-0.019	-0.007	0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.284	1.000			
33	-0.335	-0.320	1.000		
34	0.032	0.000	-0.029	1.000	
35	-0.011	0.019	-0.007	-0.064	1.000
36	-0.005	-0.026	-0.015	-0.115	-0.042

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36	1.000
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# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.032	34
200	1.005	18
300	1.010	32
400	1.004	32
500	1.003	32
600	1.004	9
700	1.004	9
800	1.004	9
900	1.003	34
1000	1.003	34

Improvement in physical health, curvilinear effects

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PRAFACSQ	PHY15	KES15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PRAFACSQ	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	0.971	0.971	0.971	0.971	0.971
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.966
PRESS15	0.966	0.966	0.966	0.966	0.966
DUTIES15	0.966	0.966	0.966	0.966	0.966

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.963			
BULLY15	0.963	0.966		
PRESS15	0.963	0.966	0.966	
DUTIES15	0.963	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	Percentiles 20%/60%	40%/80%	Median
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PRAFAC	-0.173	0.219	-2.338	1.75%	-1.489	-0.520	-0.258
57.000	1.361	-0.662	2.338	1.75%	0.080	0.848	
PRAFACSQ	1.391	1.214	0.002	1.75%	0.143	0.381	0.669
57.000	2.402	0.482	5.467	1.75%	1.168	2.415	
PHY15	0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15	0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15	0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15	0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15	0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15	0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.725 26.610

Posterior Predictive P-Value 0.477

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	Upper 2.5%	Significance
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Within Level

PHYCAT16 ON

PHY15	0.816	0.115	0.000	0.596	1.055	*
CHOICE15	-0.047	0.033	0.079	-0.112	0.015	
BULLY15	0.048	0.056	0.209	-0.060	0.160	
DUTIES15	0.032	0.038	0.178	-0.037	0.112	
PRESS15	-0.004	0.035	0.459	-0.073	0.065	
KES15	0.167	0.051	0.002	0.062	0.265	*

KES15 WITH

PHY15	0.070	0.008	0.000	0.055	0.087	*
CHOICE15	-0.134	0.024	0.000	-0.182	-0.088	*
BULLY15	0.128	0.015	0.000	0.098	0.158	*
PRESS15	0.206	0.024	0.000	0.158	0.253	*
DUTIES15	-0.206	0.021	0.000	-0.250	-0.166	*

PHY15 WITH

CHOICE15	-0.032	0.012	0.003	-0.056	-0.009	*
BULLY15	0.012	0.007	0.045	-0.002	0.026	
PRESS15	0.016	0.012	0.107	-0.008	0.037	
DUTIES15	-0.009	0.010	0.181	-0.029	0.011	

CHOICE15 WITH

BULLY15	-0.133	0.021	0.000	-0.174	-0.092	*
PRESS15	-0.181	0.033	0.000	-0.253	-0.119	*
DUTIES15	0.161	0.029	0.000	0.107	0.219	*

BULLY15 WITH

PRESS15	0.177	0.020	0.000	0.139	0.219	*
DUTIES15	-0.140	0.019	0.000	-0.178	-0.103	*

PRESS15 WITH

DUTIES15	-0.242	0.030	0.000	-0.306	-0.182	*
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Means

PHY15	0.000	0.010	0.484	-0.020	0.020	
KES15	0.001	0.021	0.487	-0.040	0.041	
CHOICE15	-0.001	0.030	0.487	-0.060	0.059	
BULLY15	0.000	0.019	0.499	-0.035	0.036	
PRESS15	0.002	0.031	0.473	-0.061	0.063	
DUTIES15	-0.002	0.027	0.466	-0.053	0.053	

Variances						
PHY15	0.154	0.006	0.000	0.144	0.167	*
KES15	0.613	0.023	0.000	0.571	0.660	*
CHOICE15	1.251	0.048	0.000	1.162	1.356	*
BULLY15	0.475	0.018	0.000	0.441	0.513	*
PRESS15	1.209	0.045	0.000	1.124	1.299	*
DUTIES15	0.974	0.038	0.000	0.908	1.053	*

#### Between Level

PHYCAT16 ON						
PRAFAC	-0.057	0.041	0.079	-0.139	0.018	
PRAFACSQ	-0.026	0.034	0.212	-0.097	0.040	

PRAFAC WITH						
PRAFACSQ	-0.117	0.246	0.312	-0.603	0.343	

Means						
PRAFAC	-0.171	0.154	0.135	-0.484	0.127	
PRAFACSQ	1.381	0.215	0.000	0.959	1.796	*

Thresholds						
PHYCAT16\$1	-0.414	0.055	0.000	-0.522	-0.310	*

Variances						
PRAFAC	1.371	0.265	0.000	0.970	2.010	*
PRAFACSQ	2.422	0.459	0.000	1.704	3.465	*

Residual Variances						
PHYCAT16	0.008	0.010	0.000	0.000	0.037	*

New/Additional Parameters						
MIN	-0.662	70.998	0.215	-7.948	10.444	

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						

PHYCAT16	ON					
PHY15		0.298	0.039	0.000	0.223	0.376 *
CHOICE15		-0.049	0.034	0.079	-0.116	0.016
BULLY15		0.031	0.036	0.209	-0.038	0.102
DUTIES15		0.030	0.035	0.178	-0.034	0.103
PRESS15		-0.004	0.035	0.459	-0.074	0.067
KES15		0.123	0.037	0.002	0.045	0.192 *
KES15	WITH					
PHY15		0.230	0.025	0.000	0.181	0.280 *
CHOICE15		-0.153	0.027	0.000	-0.205	-0.102 *
BULLY15		0.237	0.026	0.000	0.185	0.286 *
PRESS15		0.240	0.026	0.000	0.187	0.288 *
DUTIES15		-0.266	0.024	0.000	-0.315	-0.217 *
PHY15	WITH					
CHOICE15		-0.073	0.027	0.003	-0.125	-0.021 *
BULLY15		0.045	0.027	0.045	-0.007	0.096
PRESS15		0.036	0.027	0.107	-0.017	0.087
DUTIES15		-0.023	0.027	0.181	-0.076	0.029
CHOICE15	WITH					
BULLY15		-0.172	0.027	0.000	-0.224	-0.119 *
PRESS15		-0.148	0.026	0.000	-0.204	-0.097 *
DUTIES15		0.146	0.025	0.000	0.097	0.196 *
BULLY15	WITH					
PRESS15		0.234	0.025	0.000	0.187	0.282 *
DUTIES15		-0.205	0.026	0.000	-0.257	-0.152 *
PRESS15	WITH					
DUTIES15		-0.223	0.026	0.000	-0.276	-0.172 *
Means						
PHY15		0.001	0.026	0.484	-0.052	0.052
KES15		0.001	0.027	0.487	-0.051	0.053
CHOICE15		-0.001	0.027	0.487	-0.054	0.053
BULLY15		0.000	0.027	0.499	-0.051	0.053
PRESS15		0.002	0.028	0.473	-0.055	0.057
DUTIES15		-0.002	0.027	0.466	-0.053	0.053
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000

CHOICE15	1.000	0.000	0.000	1.000	1.000
BULLY15	1.000	0.000	0.000	1.000	1.000
PRESS15	1.000	0.000	0.000	1.000	1.000
DUTIES15	1.000	0.000	0.000	1.000	1.000

#### Between Level

PHYCAT16 ON					
PRAFAC	-0.530	0.307	0.079	-0.930	0.249
PRAFACSQ	-0.332	0.355	0.212	-0.820	0.525

PRAFAC WITH					
PRAFACSQ	-0.065	0.128	0.312	-0.309	0.176

#### Means

PRAFAC	-0.145	0.131	0.135	-0.406	0.109	
PRAFACSQ	0.896	0.158	0.000	0.583	1.193	*

#### Thresholds

PHYCAT16\$1	-3.069	1.553	0.000	-7.820	-1.596	*
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#### Variances

PRAFAC	1.000	0.000	0.000	1.000	1.000
PRAFACSQ	1.000	0.000	0.000	1.000	1.000

#### Residual Variances

PHYCAT16	0.485	0.265	0.000	0.053	0.973	*
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#### R-SQUARE

#### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.134	0.027	0.000	0.085	0.188

#### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.515	0.265	0.000	0.027	0.947



# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>0</u>	<u></u>
DUTIES15	0

ALPHA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>6</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0

BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU

PHYCAT16
42

NU			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/> 0	<hr/> 0
LAMBDA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/> 0	<hr/> 0
PHYCAT16	0	0	0
PRAFAC	0	0	0
PRAFACSQ	0	0	0
THETA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/>	<hr/>
PHYCAT16	0		
PRAFAC	0	0	
PRAFACSQ	0	0	0
ALPHA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/> 34	<hr/> 35
BETA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/> 36	<hr/> 37
PHYCAT16	0	36	37
PRAFAC	0	0	0
PRAFACSQ	0	0	0
PSI			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/> 38	<hr/>	<hr/>
PHYCAT16	38		
PRAFAC	0	39	
PRAFACSQ	0	40	41

PARAMETER SPECIFICATION FOR THE ADDITIONAL PARAMETERS

NEW/ADDITIONAL PARAMETERS  
MIN

43

STARTING VALUES FOR WITHIN

TAU

PHYCAT16

0.000

NU

PHYCAT16

0.000

PHY15

0.000

KES15

0.000

CHOICE15

0.000

BULLY15

0.000

NU

PRESS15

0.000

DUTIES15

0.000

LAMBDA

PHYCAT16

1.000

PHY15

0.000

KES15

0.000

CHOICE15

0.000

BULLY15

0.000

PHYCAT16

0.000

PHY15

1.000

KES15

0.000

CHOICE15

0.000

BULLY15

0.000

PRESS15

0.000

DUTIES15

0.000

1.000

0.000

0.000

0.000

0.000

0.000

1.000

0.000

0.000

0.000

0.000

1.000

0.000

0.000

0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15

PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.604	
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU			
	PHYCAT16		
	<hr/>		
	-0.311		
NU			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/>		
	0.000	0.000	0.000
LAMBDA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/>		
PHYCAT16	1.000	0.000	0.000
PRAFAC	0.000	1.000	0.000
PRAFACSQ	0.000	0.000	1.000
THETA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/>		
PHYCAT16	0.000		
PRAFAC	0.000	0.000	
PRAFACSQ	0.000	0.000	0.000
ALPHA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/>		
	0.000	-0.078	0.966
BETA			
	PHYCAT16	PRAFAC	PRAFACSQ
	<hr/>		
PHYCAT16	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000
PSI			
	PHYCAT16	PRAFAC	PRAFACSQ



PHYCAT16	1.000		
PRAFAC	0.000	0.480	
PRAFACSQ	0.000	0.000	0.712

STARTING VALUES FOR THE ADDITIONAL PARAMETERS

NEW/ADDITIONAL PARAMETERS  
MIN  
0.500

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity

Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.105262D-03				
2	0.522127D-04	0.442652D-03			
3	-0.262475D-04	-0.110228D-03	0.929534D-03		
4	0.322823D-05	0.104687D-03	-0.755418D-04	0.348422D-03	
5	0.640124D-06	0.156524D-03	-0.148971D-03	0.121329D-03	0.967279D-03
6	-0.227530D-04	-0.163709D-03	0.101532D-03	-0.989934D-04	-0.194195D-03
7	-0.490918D-04	-0.973527D-05	0.884995D-04	-0.104626D-03	0.439479D-04
8	0.859421D-05	-0.138274D-04	-0.382372D-04	-0.245383D-04	0.296637D-04
9	0.135194D-06	-0.854486D-05	-0.887813D-05	0.204269D-06	0.128290D-04
10	0.138540D-04	-0.296649D-04	0.141500D-04	-0.112860D-04	-0.531161D-04
11	-0.779519D-05	-0.243219D-04	0.120039D-04	-0.815190D-05	-0.701049D-05
12	0.462752D-05	-0.142145D-04	0.456973D-04	-0.715663D-05	-0.115888D-04
13	-0.667504D-06	-0.223412D-05	0.697095D-06	-0.102970D-05	-0.391293D-05
14	-0.117507D-06	0.675636D-05	-0.115327D-04	0.535175D-05	-0.837094D-05
15	0.384881D-06	0.753893D-05	-0.385093D-05	-0.169319D-04	-0.620221D-04
16	-0.633354D-06	-0.519816D-05	0.146997D-05	-0.363880D-05	-0.864681D-05
17	-0.166955D-05	0.956467D-05	0.335747D-04	-0.676937D-05	0.119277D-04
18	0.125506D-04	0.306154D-05	0.132752D-04	0.371142D-04	0.489681D-04
19	-0.133714D-05	0.742430D-05	-0.120022D-05	0.889759D-05	0.978154D-05
20	-0.413106D-05	0.951202D-06	-0.215312D-04	0.535561D-06	-0.216484D-04

21	0.223564D-05	0.139060D-07	0.826218D-05	-0.405151D-05	-0.206685D-04
22	-0.118007D-05	-0.236656D-05	0.111854D-05	-0.141526D-05	-0.652837D-05
23	0.383133D-07	0.766699D-05	0.186037D-05	0.372044D-05	0.900441D-05
24	-0.192837D-06	-0.123358D-05	0.154070D-04	-0.646991D-05	-0.439432D-04
25	0.402872D-05	0.221330D-04	0.255196D-04	0.103763D-04	0.319510D-04
26	0.226067D-05	0.196994D-05	-0.217992D-04	0.140030D-04	-0.336326D-04
27	0.239637D-05	-0.139072D-04	0.261992D-04	0.105031D-04	-0.672421D-04
28	-0.829001D-06	0.302567D-05	-0.550873D-05	-0.187012D-05	0.163324D-05
29	-0.251610D-05	-0.626315D-05	-0.111689D-04	0.133238D-04	0.275830D-04
30	-0.407433D-05	-0.139534D-05	-0.108130D-04	0.649515D-05	0.102930D-04
31	0.385205D-05	0.485795D-05	0.637060D-05	0.267546D-05	0.150311D-04
32	0.352540D-05	-0.220135D-05	-0.129303D-04	-0.129303D-04	0.251340D-04
33	0.863966D-05	-0.117417D-04	0.912647D-05	-0.170925D-04	-0.238293D-04
34	-0.344374D-04	-0.194994D-04	0.517737D-04	0.629082D-04	0.810527D-04
35	0.210400D-04	0.203951D-04	-0.961574D-05	-0.638932D-04	0.652032D-04
36	-0.525639D-05	-0.191630D-04	0.672878D-05	-0.231895D-05	-0.830903D-05
37	0.740010D-06	0.413424D-05	-0.281631D-04	-0.262664D-04	-0.323699D-05
38	-0.289931D-05	-0.363186D-05	0.717027D-05	0.291958D-05	0.531742D-05
39	-0.862511D-04	-0.171056D-03	0.278182D-03	-0.305620D-04	-0.378235D-03
40	-0.628448D-04	-0.713248D-04	-0.214779D-03	-0.179899D-03	0.913793D-04
41	-0.214084D-03	-0.938042D-05	-0.245121D-05	0.138226D-04	0.834849D-04
42	0.551824D-05	0.190153D-04	-0.703044D-05	-0.272267D-04	-0.410028D-04
43	0.294023D-02	0.717957D-01	-0.583261D-01	0.601407D-01	0.968142D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.732628D-03				
7	-0.444287D-04	0.132572D-01			
8	0.320302D-04	-0.605809D-03	0.264297D-02		
9	0.214264D-05	0.122059D-03	0.109196D-03	0.105853D-02	
10	0.294751D-04	-0.422755D-04	-0.302436D-03	0.184758D-03	0.312250D-02
11	-0.867660D-05	0.368489D-04	-0.222818D-03	0.917346D-04	-0.288167D-03
12	0.430072D-04	0.116006D-05	0.383510D-03	-0.121411D-03	0.315902D-03
13	0.130934D-05	0.285612D-04	-0.371362D-05	0.458175D-05	-0.499317D-05
14	0.854642D-05	-0.727850D-05	0.953078D-05	-0.275740D-05	-0.265266D-04
15	0.226859D-04	0.956932D-04	0.522997D-04	-0.357280D-04	-0.320284D-04
16	-0.397254D-05	-0.444972D-04	0.552362D-05	-0.839495D-06	0.190176D-04
17	0.166233D-04	0.702265D-04	-0.465627D-04	0.807128D-05	0.625771D-04
18	0.854729D-05	-0.118284D-03	0.311994D-04	0.539614D-04	-0.505820D-04
19	-0.104775D-05	0.208878D-04	0.459754D-05	-0.453460D-06	0.603275D-05
20	0.108382D-04	-0.203746D-04	-0.271651D-05	0.598415D-06	0.344102D-04
21	0.135333D-04	0.169126D-04	-0.593271D-04	0.275889D-04	-0.264729D-04

22	0.645105D-05	0.221477D-04	0.302292D-04	-0.110891D-04	-0.327374D-04
23	0.238405D-05	0.225683D-04	0.230722D-04	0.626436D-05	0.981164D-05
24	0.177662D-04	0.317820D-04	0.153990D-04	-0.203844D-04	-0.679677D-05
25	-0.555246D-05	0.101753D-03	0.897401D-05	0.641177D-04	-0.594692D-04
26	-0.423474D-05	-0.614720D-04	0.339108D-04	-0.158758D-04	-0.246722D-04
27	0.275040D-04	-0.405723D-04	0.398076D-04	-0.290928D-04	-0.343388D-04
28	-0.150331D-04	0.254297D-04	-0.162120D-04	-0.499201D-05	-0.135913D-05
29	-0.960245D-05	0.675810D-04	-0.282552D-04	0.172237D-04	-0.303213D-04
30	0.157947D-04	-0.114424D-03	0.104385D-03	0.362213D-06	0.442515D-04
31	-0.144650D-04	0.740736D-04	-0.219142D-04	0.439585D-05	-0.192138D-04
32	-0.112096D-04	0.179922D-03	-0.249562D-04	0.336589D-04	-0.308274D-04
33	0.112192D-04	0.334361D-04	0.526504D-04	-0.834881D-05	0.153794D-04
34	0.805738D-04	-0.269871D-03	-0.634584D-04	-0.125473D-03	-0.722040D-05
35	0.119972D-03	-0.175519D-03	-0.156107D-03	-0.160722D-03	0.484683D-03
36	0.198776D-05	-0.403206D-03	0.409862D-04	0.307068D-04	0.313669D-04
37	0.320744D-04	-0.227082D-03	-0.981401D-04	-0.743354D-04	0.916287D-04
38	0.472781D-05	0.277613D-04	0.276641D-05	-0.166466D-04	-0.217868D-05
39	0.177932D-03	0.123094D-02	-0.138852D-03	0.133212D-03	-0.294335D-03
40	-0.291721D-04	0.271861D-03	-0.259484D-03	0.315696D-04	-0.452747D-04
41	0.229056D-03	0.822146D-03	-0.300306D-03	-0.229962D-03	0.842276D-03
42	0.254930D-04	-0.119591D-02	-0.149271D-03	0.126470D-04	-0.127766D-04
43	-0.570390D-01	0.283139D+00	-0.194303D+00	0.621413D-01	-0.298863D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.119590D-02				
12	0.202560D-03	0.144292D-02			
13	0.964893D-05	0.455840D-05	0.334100D-04		
14	0.210486D-05	-0.494794D-05	0.127734D-04	0.699862D-04	
15	0.119098D-04	0.120437D-04	0.233498D-05	0.637445D-04	0.513316D-03
16	-0.621677D-05	0.156437D-04	-0.737967D-05	-0.171872D-04	-0.242555D-04
17	-0.194228D-04	0.221925D-04	0.162239D-05	-0.161072D-04	-0.104909D-03
18	0.310179D-04	0.162651D-04	-0.134233D-05	-0.132380D-05	0.184283D-04
19	-0.624667D-05	-0.742109D-05	0.291000D-05	0.157607D-04	0.220947D-04
20	0.254306D-04	-0.237772D-05	0.507317D-06	0.751665D-05	0.103436D-03
21	0.196570D-04	-0.462991D-04	0.337742D-05	-0.257812D-05	-0.256511D-04
22	0.131500D-04	0.212791D-04	-0.360537D-08	0.735575D-06	0.267525D-04
23	-0.202963D-04	-0.671917D-05	0.267124D-05	0.214798D-04	0.283837D-04
24	0.658968D-05	-0.216388D-04	0.136583D-05	0.141323D-04	0.175229D-03
25	-0.107314D-04	0.155575D-04	0.266847D-05	0.181100D-05	-0.392655D-04
26	0.853077D-05	-0.477497D-05	0.404063D-05	-0.402832D-06	0.341653D-04
27	0.362424D-04	0.274588D-04	0.110910D-04	-0.180478D-05	0.255629D-05

28	0.143608D-04	0.876419D-05	0.121569D-05	-0.251596D-04	-0.206330D-04
29	-0.175268D-04	0.406607D-05	0.331040D-05	-0.138406D-04	-0.167869D-03
30	-0.511947D-04	0.151026D-04	-0.277942D-05	0.616093D-05	0.425359D-04
31	-0.514778D-05	-0.149977D-04	-0.485293D-06	0.783979D-05	-0.219704D-04
32	0.197408D-04	-0.139540D-04	-0.629161D-05	-0.412067D-05	-0.508528D-04
33	-0.256560D-04	0.245230D-04	0.254776D-05	-0.181110D-05	0.172081D-04
34	-0.859385D-04	-0.603979D-06	-0.233184D-04	-0.309996D-04	-0.233123D-04
35	-0.126200D-03	0.292763D-03	-0.295916D-05	-0.610060D-04	-0.763857D-04
36	-0.262776D-04	-0.127989D-04	-0.112636D-05	-0.721001D-05	-0.562851D-04
37	0.298667D-04	0.396565D-04	-0.206175D-05	-0.119121D-04	-0.462379D-04
38	0.161376D-04	0.154470D-04	-0.145077D-05	-0.936887D-06	-0.654141D-05
39	0.407249D-04	0.124749D-03	0.302646D-04	-0.323428D-04	0.150750D-03
40	0.138857D-03	0.106657D-03	-0.830219D-05	0.308857D-04	-0.206480D-03
41	0.303748D-03	-0.599030D-03	-0.252882D-05	-0.527293D-04	0.106154D-03
42	0.480571D-04	0.184012D-04	-0.754720D-05	-0.623741D-05	-0.430715D-04
43	0.872602D-01	-0.738920D-01	0.522767D-03	-0.131680D-01	-0.122957D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.141549D-03				
17	0.782496D-04	0.576815D-03			
18	-0.662721D-04	-0.227251D-03	0.233909D-02		
19	-0.161756D-04	-0.115775D-04	0.905487D-05	0.542283D-04	
20	-0.163508D-04	-0.733088D-04	0.142807D-04	0.276617D-04	0.226603D-03
21	0.155142D-04	0.125387D-03	-0.193874D-03	-0.123313D-04	-0.619523D-04
22	-0.327744D-05	-0.295867D-04	-0.377189D-05	0.782368D-05	0.902458D-04
23	-0.166881D-04	-0.844059D-05	0.543467D-05	0.199120D-04	0.844297D-05
24	-0.584914D-06	-0.104487D-03	0.295978D-05	0.556294D-05	0.989489D-04
25	0.261268D-04	0.206569D-03	-0.346667D-03	0.627316D-05	-0.645918D-04
26	0.534663D-05	-0.312996D-04	-0.144659D-04	0.106694D-05	0.931830D-04
27	-0.161706D-04	-0.519231D-04	0.397574D-04	0.193080D-05	0.669272D-04
28	0.145871D-04	0.139828D-04	0.138883D-04	-0.172220D-04	-0.123162D-04
29	0.154150D-04	0.922963D-04	0.475967D-05	-0.111137D-04	-0.840766D-04
30	-0.135160D-04	-0.170942D-03	0.262980D-03	0.867079D-05	0.392337D-04
31	0.101184D-04	0.398722D-04	-0.887903D-05	-0.431627D-05	-0.925012D-04
32	0.250309D-05	0.653593D-04	-0.563514D-04	0.789913D-05	-0.407000D-04
33	-0.130704D-04	-0.872650D-04	0.751154D-04	0.234807D-05	0.311122D-04
34	-0.614343D-04	0.482228D-04	0.183742D-03	0.266831D-04	-0.250395D-04
35	0.124426D-03	-0.122550D-04	-0.289739D-03	0.412236D-04	0.360398D-04
36	0.120807D-04	-0.805915D-05	0.880187D-04	-0.127169D-04	-0.987124D-05
37	0.235561D-04	0.165753D-04	0.671447D-05	-0.114941D-04	-0.299839D-05
38	0.953737D-07	0.266334D-05	0.111288D-04	-0.486563D-07	-0.568348D-06

39	-0.218901D-04	0.122064D-03	-0.438808D-03	0.835395D-06	-0.156156D-04
40	-0.269525D-05	0.796657D-04	0.117830D-03	0.147995D-03	0.119986D-04
41	-0.169398D-04	0.352616D-03	-0.119539D-02	-0.402995D-04	-0.690511D-04
42	0.302949D-04	0.998795D-05	-0.934969D-05	-0.225437D-04	-0.258167D-05
43	0.525196D-02	0.469838D-01	-0.981364D-01	0.237565D-02	0.574489D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.456509D-03				
22	-0.105285D-03	0.326145D-03			
23	0.109025D-05	0.167406D-05	0.132918D-03		
24	-0.288719D-04	0.333323D-04	0.555605D-04	0.586184D-03	
25	0.175257D-03	-0.354348D-04	-0.292597D-04	-0.124293D-03	0.108533D-02
26	-0.728166D-04	0.124649D-03	0.558246D-05	0.126722D-03	-0.126809D-03
27	-0.584912D-04	0.272598D-04	0.241416D-04	0.351945D-03	-0.280861D-03
28	-0.266728D-05	-0.862472D-05	-0.255696D-04	-0.115766D-04	-0.215823D-05
29	0.288300D-04	-0.318892D-04	-0.112182D-04	-0.142975D-03	0.502619D-04
30	-0.132969D-03	0.425911D-04	0.828489D-05	0.553707D-04	-0.245977D-03
31	0.914187D-04	-0.100627D-03	-0.130305D-05	-0.558411D-04	0.754699D-04
32	0.201264D-04	-0.387981D-04	-0.127953D-04	-0.196012D-03	0.196389D-03
33	-0.427972D-04	0.485595D-04	-0.495334D-06	0.463622D-04	-0.521577D-04
34	0.654608D-04	-0.174013D-04	-0.346378D-05	-0.312113D-04	-0.746277D-04
35	-0.170317D-04	0.107788D-03	-0.145727D-04	-0.254602D-04	0.176974D-03
36	-0.457332D-05	-0.172246D-07	-0.207837D-04	-0.576305D-04	0.880985D-05
37	0.382638D-04	-0.292919D-04	-0.175611D-04	-0.169314D-04	0.548358D-04
38	0.159689D-05	-0.116908D-06	0.278307D-05	-0.892205D-05	0.898558D-05
39	0.287434D-03	0.111902D-03	0.596541D-04	0.948969D-04	0.357626D-03
40	0.372454D-04	-0.276310D-04	-0.114571D-03	-0.109705D-03	-0.921578D-04
41	0.106445D-03	0.133153D-04	0.123643D-03	-0.256984D-04	0.267432D-03
42	0.161404D-04	-0.261856D-04	-0.257426D-04	0.178881D-04	0.890018D-04
43	0.315877D-01	-0.809478D-02	0.398826D-02	0.198428D-01	0.963824D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.418026D-03				
27	0.288599D-03	0.203282D-02			
28	-0.112685D-04	0.400700D-05	0.110113D-03		
29	-0.381384D-04	-0.786282D-04	0.554571D-04	0.448340D-03	
30	0.411041D-04	0.131323D-04	-0.328550D-04	-0.117506D-03	0.848400D-03
31	-0.952201D-04	-0.566536D-04	0.582782D-05	0.107267D-03	-0.122337D-03

32	-0.137273D-03	-0.367301D-03	0.112990D-04	0.179866D-03	-0.192975D-03
33	0.464710D-04	0.835436D-04	-0.199004D-04	-0.305548D-03	0.253361D-03
34	0.409801D-04	0.179295D-03	0.384789D-04	0.140857D-03	-0.211883D-03
35	0.159914D-04	-0.179557D-03	-0.714246D-04	-0.402349D-04	0.553381D-04
36	0.329173D-05	-0.814527D-04	0.147559D-04	0.312793D-04	-0.838326D-05
37	-0.166732D-04	-0.674979D-04	0.264941D-05	-0.114114D-04	-0.619843D-05
38	-0.134136D-04	-0.133645D-04	-0.328814D-05	0.446850D-05	-0.107813D-04
39	0.979456D-04	-0.689331D-04	-0.154282D-03	-0.677443D-04	-0.183008D-03
40	-0.123681D-03	0.498416D-03	0.275386D-04	-0.543904D-04	0.214570D-03
41	0.518791D-04	0.509172D-04	-0.323012D-04	0.432084D-04	-0.477557D-03
42	-0.220281D-04	-0.410557D-04	0.749644D-05	-0.547616D-04	0.148953D-04
43	0.254519D-01	0.398709D-01	0.216306D-01	0.190109D-01	-0.581966D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.365375D-03				
32	0.162426D-03	0.917692D-03			
33	-0.191997D-03	-0.354678D-03	0.145035D-02		
34	0.931856D-05	0.118548D-03	-0.375968D-03	0.237388D-01	
35	-0.667909D-04	-0.171839D-03	-0.160225D-03	-0.134010D-02	0.463975D-01
36	0.488045D-05	0.315098D-04	-0.542229D-04	0.263934D-03	-0.129495D-03
37	0.442778D-04	0.237208D-04	-0.369658D-04	0.872708D-04	0.413520D-04
38	0.600680D-05	0.128660D-04	-0.591866D-05	-0.427860D-04	0.753253D-04
39	-0.138923D-03	0.199131D-03	0.240752D-03	-0.671356D-03	0.149561D-02
40	-0.165498D-06	0.269220D-03	0.703555D-04	-0.100383D-02	0.975629D-03
41	-0.187115D-03	0.156798D-03	0.603225D-03	-0.140705D-04	0.387693D-03
42	0.289189D-04	0.237141D-04	-0.133251D-04	0.287153D-04	0.177680D-03
43	-0.354496D-01	-0.206450D-01	0.110146D+00	-0.131041D+00	0.274277D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.168363D-02				
37	0.466776D-03	0.118002D-02			
38	-0.621309D-04	-0.521653D-04	0.109657D-03		
39	0.262800D-03	-0.268898D-03	-0.569549D-04	0.703490D-01	
40	-0.107573D-03	0.369621D-04	-0.678478D-06	-0.633633D-02	0.604981D-01
41	0.111149D-02	0.643150D-03	0.539085D-04	-0.188615D-02	-0.755848D-02
42	0.309649D-03	0.122762D-02	-0.802302D-04	-0.537555D-03	0.662021D-04
43	0.664030D-01	0.598974D-01	0.887498D-02	-0.423959D+00	-0.305162D-02

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42	43
41	0.210596D+00		
42	-0.247612D-03	0.299197D-02	
43	0.976638D+00	0.126691D+00	0.503737D+04

	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.242	1.000			
3	-0.084	-0.172	1.000		
4	0.017	0.267	-0.133	1.000	
5	0.002	0.239	-0.157	0.209	1.000
6	-0.082	-0.287	0.123	-0.196	-0.231
7	-0.042	-0.004	0.025	-0.049	0.012
8	0.016	-0.013	-0.024	-0.026	0.019
9	0.000	-0.012	-0.009	0.000	0.013
10	0.024	-0.025	0.008	-0.011	-0.031
11	-0.022	-0.033	0.011	-0.013	-0.007
12	0.012	-0.018	0.039	-0.010	-0.010
13	-0.011	-0.018	0.004	-0.010	-0.022
14	-0.001	0.038	-0.045	0.034	-0.032
15	0.002	0.016	-0.006	-0.040	-0.088
16	-0.005	-0.021	0.004	-0.016	-0.023
17	-0.007	0.019	0.046	-0.015	0.016
18	0.025	0.003	0.009	0.041	0.033
19	-0.018	0.048	-0.005	0.065	0.043
20	-0.027	0.003	-0.047	0.002	-0.046
21	0.010	0.000	0.013	-0.010	-0.031
22	-0.006	-0.006	0.002	-0.004	-0.012
23	0.000	0.032	0.005	0.017	0.025
24	-0.001	-0.002	0.021	-0.014	-0.058
25	0.012	0.032	0.025	0.017	0.031
26	0.011	0.005	-0.035	0.037	-0.053
27	0.005	-0.015	0.019	0.012	-0.048
28	-0.008	0.014	-0.017	-0.010	0.005
29	-0.012	-0.014	-0.017	0.034	0.042
30	-0.014	-0.002	-0.012	0.012	0.011
31	0.020	0.012	0.011	0.007	0.025
32	0.011	-0.003	-0.018	-0.023	0.027



33	0.022	-0.015	0.008	-0.024	-0.020
34	-0.022	-0.006	0.011	0.022	0.017
35	0.010	0.005	-0.001	-0.016	0.010
36	-0.012	-0.022	0.005	-0.003	-0.007
37	0.002	0.006	-0.027	-0.041	-0.003
38	-0.027	-0.016	0.022	0.015	0.016
39	-0.032	-0.031	0.034	-0.006	-0.046
40	-0.025	-0.014	-0.029	-0.039	0.012
41	-0.045	-0.001	0.000	0.002	0.006
42	0.010	0.017	-0.004	-0.027	-0.024
43	0.004	0.048	-0.027	0.045	0.044

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.014	1.000			
8	0.023	-0.102	1.000		
9	0.002	0.033	0.065	1.000	
10	0.019	-0.007	-0.105	0.102	1.000
11	-0.009	0.009	-0.125	0.082	-0.149
12	0.042	0.000	0.196	-0.098	0.149
13	0.008	0.043	-0.012	0.024	-0.015
14	0.038	-0.008	0.022	-0.010	-0.057
15	0.037	0.037	0.045	-0.048	-0.025
16	-0.012	-0.032	0.009	-0.002	0.029
17	0.026	0.025	-0.038	0.010	0.047
18	0.007	-0.021	0.013	0.034	-0.019
19	-0.005	0.025	0.012	-0.002	0.015
20	0.027	-0.012	-0.004	0.001	0.041
21	0.023	0.007	-0.054	0.040	-0.022
22	0.013	0.011	0.033	-0.019	-0.032
23	0.008	0.017	0.039	0.017	0.015
24	0.027	0.011	0.012	-0.026	-0.005
25	-0.006	0.027	0.005	0.060	-0.032
26	-0.008	-0.026	0.032	-0.024	-0.022
27	0.023	-0.008	0.017	-0.020	-0.014
28	-0.053	0.021	-0.030	-0.015	-0.002
29	-0.017	0.028	-0.026	0.025	-0.026
30	0.020	-0.034	0.070	0.000	0.027
31	-0.028	0.034	-0.022	0.007	-0.018
32	-0.014	0.052	-0.016	0.034	-0.018
33	0.011	0.008	0.027	-0.007	0.007

34	0.019	-0.015	-0.008	-0.025	-0.001
35	0.021	-0.007	-0.014	-0.023	0.040
36	0.002	-0.085	0.019	0.023	0.014
37	0.034	-0.057	-0.056	-0.067	0.048
38	0.017	0.023	0.005	-0.049	-0.004
39	0.025	0.040	-0.010	0.015	-0.020
40	-0.004	0.010	-0.021	0.004	-0.003
41	0.018	0.016	-0.013	-0.015	0.033
42	0.017	-0.190	-0.053	0.007	-0.004
43	-0.030	0.035	-0.053	0.027	-0.075

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.154	1.000			
13	0.048	0.021	1.000		
14	0.007	-0.016	0.264	1.000	
15	0.015	0.014	0.018	0.336	1.000
16	-0.015	0.035	-0.107	-0.173	-0.090
17	-0.023	0.024	0.012	-0.080	-0.193
18	0.019	0.009	-0.005	-0.003	0.017
19	-0.025	-0.027	0.068	0.256	0.132
20	0.049	-0.004	0.006	0.060	0.303
21	0.027	-0.057	0.027	-0.014	-0.053
22	0.021	0.031	0.000	0.005	0.065
23	-0.051	-0.015	0.040	0.223	0.109
24	0.008	-0.024	0.010	0.070	0.319
25	-0.009	0.012	0.014	0.007	-0.053
26	0.012	-0.006	0.034	-0.002	0.074
27	0.023	0.016	0.043	-0.005	0.003
28	0.040	0.022	0.020	-0.287	-0.087
29	-0.024	0.005	0.027	-0.078	-0.350
30	-0.051	0.014	-0.017	0.025	0.064
31	-0.008	-0.021	-0.004	0.049	-0.051
32	0.019	-0.012	-0.036	-0.016	-0.074
33	-0.019	0.017	0.012	-0.006	0.020
34	-0.016	0.000	-0.026	-0.024	-0.007
35	-0.017	0.036	-0.002	-0.034	-0.016
36	-0.019	-0.008	-0.005	-0.021	-0.061
37	0.025	0.030	-0.010	-0.041	-0.059
38	0.045	0.039	-0.024	-0.011	-0.028
39	0.004	0.012	0.020	-0.015	0.025

40	0.016	0.011	-0.006	0.015	-0.037
41	0.019	-0.034	-0.001	-0.014	0.010
42	0.025	0.009	-0.024	-0.014	-0.035
43	0.036	-0.027	0.001	-0.022	-0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.274	1.000			
18	-0.115	-0.196	1.000		
19	-0.185	-0.065	0.025	1.000	
20	-0.091	-0.203	0.020	0.250	1.000
21	0.061	0.244	-0.188	-0.078	-0.193
22	-0.015	-0.068	-0.004	0.059	0.332
23	-0.122	-0.030	0.010	0.235	0.049
24	-0.002	-0.180	0.003	0.031	0.271
25	0.067	0.261	-0.218	0.026	-0.130
26	0.022	-0.064	-0.015	0.007	0.303
27	-0.030	-0.048	0.018	0.006	0.099
28	0.117	0.055	0.027	-0.223	-0.078
29	0.061	0.181	0.005	-0.071	-0.264
30	-0.039	-0.244	0.187	0.040	0.089
31	0.044	0.087	-0.010	-0.031	-0.321
32	0.007	0.090	-0.038	0.035	-0.089
33	-0.029	-0.095	0.041	0.008	0.054
34	-0.034	0.013	0.025	0.024	-0.011
35	0.049	-0.002	-0.028	0.026	0.011
36	0.025	-0.008	0.044	-0.042	-0.016
37	0.058	0.020	0.004	-0.045	-0.006
38	0.001	0.011	0.022	-0.001	-0.004
39	-0.007	0.019	-0.034	0.000	-0.004
40	-0.001	0.013	0.010	0.082	0.003
41	-0.003	0.032	-0.054	-0.012	-0.010
42	0.047	0.008	-0.004	-0.056	-0.003
43	0.006	0.028	-0.029	0.005	0.054

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.273	1.000			

23	0.004	0.008	1.000		
24	-0.056	0.076	0.199	1.000	
25	0.249	-0.060	-0.077	-0.156	1.000
26	-0.167	0.338	0.024	0.256	-0.188
27	-0.061	0.033	0.046	0.322	-0.189
28	-0.012	-0.046	-0.211	-0.046	-0.006
29	0.064	-0.083	-0.046	-0.279	0.072
30	-0.214	0.081	0.025	0.079	-0.256
31	0.224	-0.292	-0.006	-0.121	0.120
32	0.031	-0.071	-0.037	-0.267	0.197
33	-0.053	0.071	-0.001	0.050	-0.042
34	0.020	-0.006	-0.002	-0.008	-0.015
35	-0.004	0.028	-0.006	-0.005	0.025
36	-0.005	0.000	-0.044	-0.058	0.007
37	0.052	-0.047	-0.044	-0.020	0.048
38	0.007	-0.001	0.023	-0.035	0.026
39	0.051	0.023	0.020	0.015	0.041
40	0.007	-0.006	-0.040	-0.018	-0.011
41	0.011	0.002	0.023	-0.002	0.018
42	0.014	-0.027	-0.041	0.014	0.049
43	0.021	-0.006	0.005	0.012	0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.313	1.000			
28	-0.053	0.008	1.000		
29	-0.088	-0.082	0.250	1.000	
30	0.069	0.010	-0.107	-0.191	1.000
31	-0.244	-0.066	0.029	0.265	-0.220
32	-0.222	-0.269	0.036	0.280	-0.219
33	0.060	0.049	-0.050	-0.379	0.228
34	0.013	0.026	0.024	0.043	-0.047
35	0.004	-0.018	-0.032	-0.009	0.009
36	0.004	-0.044	0.034	0.036	-0.007
37	-0.024	-0.044	0.007	-0.016	-0.006
38	-0.063	-0.028	-0.030	0.020	-0.035
39	0.018	-0.006	-0.055	-0.012	-0.024
40	-0.025	0.045	0.011	-0.010	0.030
41	0.006	0.002	-0.007	0.004	-0.036
42	-0.020	-0.017	0.013	-0.047	0.009
43	0.018	0.012	0.029	0.013	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	1.000				
32	0.281	1.000			
33	-0.264	-0.307	1.000		
34	0.003	0.025	-0.064	1.000	
35	-0.016	-0.026	-0.020	-0.040	1.000
36	0.006	0.025	-0.035	0.042	-0.015
37	0.067	0.023	-0.028	0.016	0.006
38	0.030	0.041	-0.015	-0.027	0.033
39	-0.027	0.025	0.024	-0.016	0.026
40	0.000	0.036	0.008	-0.026	0.018
41	-0.021	0.011	0.035	0.000	0.004
42	0.028	0.014	-0.006	0.003	0.015
43	-0.026	-0.010	0.041	-0.012	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	1.000				
37	0.331	1.000			
38	-0.145	-0.145	1.000		
39	0.024	-0.030	-0.021	1.000	
40	-0.011	0.004	0.000	-0.097	1.000
41	0.059	0.041	0.011	-0.015	-0.067
42	0.138	0.653	-0.140	-0.037	0.005
43	0.023	0.025	0.012	-0.023	0.000

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES			
	41	42	43
41	1.000		
42	-0.010	1.000	
43	0.030	0.033	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.022	32
200	1.009	42
300	1.005	40
400	1.006	28
500	1.004	28
600	1.007	36
700	1.002	38
800	1.001	27
900	1.002	2
1000	1.003	38

Worsening of distress, main effects

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122

186	24
192	209
246	204
278	125
405	217
780	110
873	100

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns	9
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## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.950	0.950			
KES15	0.919	0.919	0.919		
CHOICE15	0.913	0.913	0.913	0.913	
BULLY15	0.913	0.913	0.913	0.912	0.913
PRESS15	0.913	0.913	0.913	0.913	0.912
DUTIES15	0.913	0.913	0.913	0.913	0.913
PRAFAC	1.000	0.950	0.919	0.913	0.913

	Covariance	Coverage	
	PRESS15	DUTIES15	PRAFAC
PRESS15	0.913		
DUTIES15	0.913	0.913	
PRAFAC	0.913	0.913	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16



Category 1	0.877	5135.000
Category 2	0.123	720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15	0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15	0.000	-0.400	-2.221	7.67%	-1.221	-0.221	-0.221
5345.000	1.097	-0.356	1.779	8.62%	0.779	0.779	
BULLY15	0.000	3.522	-0.153	88.29%	-0.153	-0.153	-0.153
5344.000	0.216	14.164	3.847	0.09%	-0.153	-0.153	
PRESS15	0.000	0.267	-1.445	19.70%	-0.445	-0.445	-0.445
5345.000	1.001	-0.357	2.555	2.75%	0.555	0.555	
DUTIES15	0.000	-1.296	-3.149	2.34%	-0.149	-0.149	-0.149
5347.000	0.828	1.939	0.851	39.74%	-0.149	0.851	
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-22.143	28.089
Posterior Predictive P-Value	0.490

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.135	0.033	0.000	0.073	0.200	*
CHOICE15	-0.058	0.025	0.009	-0.108	-0.009	*
BULLY15	0.111	0.048	0.013	0.016	0.199	*
DUTIES15	-0.082	0.027	0.001	-0.135	-0.027	*
PRESS15	-0.033	0.026	0.110	-0.085	0.017	
KES15	1.613	0.085	0.000	1.444	1.780	*
KES15 WITH						
PHY15	0.055	0.003	0.000	0.048	0.061	*
CHOICE15	-0.037	0.004	0.000	-0.045	-0.028	*
BULLY15	0.022	0.002	0.000	0.019	0.026	*
PRESS15	0.053	0.004	0.000	0.045	0.062	*
DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*
PHY15 WITH						
CHOICE15	-0.092	0.011	0.000	-0.113	-0.071	*
BULLY15	0.025	0.005	0.000	0.015	0.034	*
PRESS15	0.062	0.010	0.000	0.044	0.083	*
DUTIES15	-0.057	0.009	0.000	-0.074	-0.039	*
CHOICE15 WITH						
BULLY15	-0.052	0.007	0.000	-0.064	-0.039	*
PRESS15	-0.078	0.014	0.000	-0.105	-0.049	*
DUTIES15	0.159	0.013	0.000	0.136	0.184	*
BULLY15 WITH						
PRESS15	0.091	0.006	0.000	0.079	0.104	*
DUTIES15	-0.059	0.006	0.000	-0.070	-0.047	*

PRESS15 WITH DUTIES15	-0.156	0.013	0.000	-0.183	-0.131	*
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Means

PHY15	0.001	0.010	0.453	-0.016	0.021	
KES15	0.003	0.004	0.264	-0.005	0.011	
CHOICE15	-0.003	0.014	0.429	-0.030	0.026	
BULLY15	0.001	0.006	0.424	-0.011	0.013	
PRESS15	0.002	0.013	0.451	-0.023	0.028	
DUTIES15	-0.003	0.012	0.400	-0.026	0.022	

Variances

PHY15	0.536	0.010	0.000	0.517	0.557	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.098	0.021	0.000	1.059	1.141	*
BULLY15	0.216	0.004	0.000	0.208	0.224	*
PRESS15	1.001	0.020	0.000	0.964	1.043	*
DUTIES15	0.829	0.016	0.000	0.799	0.861	*

Between Level

KESCAT16 ON PRAFAC	0.014	0.028	0.303	-0.038	0.071	
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Thresholds

KESCAT16\$1	1.354	0.035	0.000	1.290	1.427	*
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Residual Variances

KESCAT16	0.009	0.008	0.000	0.002	0.032	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.086	0.021	0.000	0.046	0.126	*
CHOICE15	-0.053	0.023	0.009	-0.098	-0.008	*
BULLY15	0.045	0.019	0.013	0.006	0.081	*

DUTIES15	-0.065	0.021	0.001	-0.106	-0.022	*
PRESS15	-0.029	0.023	0.110	-0.074	0.015	
KES15	0.433	0.019	0.000	0.394	0.471	*
KES15 WITH						
PHY15	0.241	0.013	0.000	0.215	0.266	*
CHOICE15	-0.113	0.013	0.000	-0.139	-0.087	*
BULLY15	0.154	0.013	0.000	0.129	0.179	*
PRESS15	0.172	0.013	0.000	0.146	0.198	*
DUTIES15	-0.180	0.013	0.000	-0.205	-0.153	*
PHY15 WITH						
CHOICE15	-0.120	0.014	0.000	-0.146	-0.093	*
BULLY15	0.072	0.014	0.000	0.044	0.099	*
PRESS15	0.085	0.014	0.000	0.060	0.113	*
DUTIES15	-0.085	0.014	0.000	-0.111	-0.059	*
CHOICE15 WITH						
BULLY15	-0.106	0.013	0.000	-0.132	-0.081	*
PRESS15	-0.074	0.013	0.000	-0.099	-0.047	*
DUTIES15	0.167	0.013	0.000	0.143	0.192	*
BULLY15 WITH						
PRESS15	0.195	0.013	0.000	0.171	0.221	*
DUTIES15	-0.138	0.013	0.000	-0.165	-0.113	*
PRESS15 WITH						
DUTIES15	-0.171	0.013	0.000	-0.199	-0.144	*
Means						
PHY15	0.002	0.013	0.453	-0.022	0.029	
KES15	0.010	0.014	0.264	-0.017	0.036	
CHOICE15	-0.003	0.014	0.429	-0.029	0.025	
BULLY15	0.002	0.013	0.424	-0.024	0.028	
PRESS15	0.001	0.013	0.451	-0.023	0.028	
DUTIES15	-0.004	0.013	0.400	-0.029	0.024	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON PRAFAC	0.171	0.301	0.303	-0.457	0.688	
Thresholds KESCAT16\$1	13.068	5.980	0.000	7.260	29.913	*
Residual Variances KESCAT16	0.940	0.135	0.000	0.511	1.000	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.245	0.017	0.000	0.213	0.279

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.060	0.135	0.000	0.000	0.489

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
-----  
0

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
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NU

PRESS15	DUTIES15
<u>0</u>	<u>0</u>

LAMBDA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
KESCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

	ALPHA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

	ALPHA	
	PRESS15	DUTIES15
	<u>5</u>	<u>6</u>

	BETA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<hr/> 27	<hr/>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<hr/> 36

NU	
KESCAT16	PRAFAC
<hr/> 0	<hr/> 0

LAMBDA	
KESCAT16	PRAFAC
<hr/> 0	<hr/> 0
PRAFAC	0

THETA	
KESCAT16	PRAFAC



KESCAT16	<u>0</u>	<u>0</u>
PRAFAC	0	0

ALPHA	
KESCAT16	PRAFAC
<u>0</u>	<u>0</u>

BETA	
KESCAT16	PRAFAC
<u>0</u>	<u>34</u>
PRAFAC	0

PSI	
KESCAT16	PRAFAC
<u>35</u>	<u>0</u>
PRAFAC	0

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<u>0.000</u>

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA			
	PRESS15	DUTIES15	
KESCAT16	0.000	0.000	
PHY15	0.000	0.000	
KES15	0.000	0.000	
CHOICE15	0.000	0.000	
BULLY15	0.000	0.000	
PRESS15	1.000	0.000	
DUTIES15	0.000	1.000	

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	
PRESS15	0.000		
DUTIES15	0.000	0.000	

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 1.000	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0.000				
PHY15	0.268				
KES15	0.000	0.048			
CHOICE15	0.000	0.000	0.549		

BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.501</u>	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>1.091</u>

NU	
KESCAT16	PRAFAC
<u>0.000</u>	<u>0.000</u>

	LAMBDA	
	KESCAT16	PRAFAC
KESCAT16	<u>1.000</u>	<u>0.000</u>
PRAFAC	0.000	1.000

	THETA	
	KESCAT16	PRAFAC
KESCAT16	<u>0.000</u>	
PRAFAC	0.000	0.000

	ALPHA	
	KESCAT16	PRAFAC
	<u>          </u>	<u>          </u>

0.000            0.000

BETA

KESCAT16

PRAFAC

KESCAT16	0.000	0.000
PRAFAC	0.000	0.000

PSI

KESCAT16

PRAFAC

KESCAT16	1.000	
PRAFAC	0.000	0.506

PRIORS FOR ALL PARAMETERS

PRIOR MEAN

PRIOR VARIANCE

PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity

Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.938683D-04				
2	0.110560D-04	0.175189D-04			
3	-0.175439D-04	-0.719224D-05	0.201542D-03		
4	0.303738D-05	0.402189D-05	-0.967992D-05	0.385371D-04	
5	0.395283D-05	0.655954D-05	-0.148262D-04	0.141004D-04	0.174206D-03
6	-0.874466D-05	-0.906851D-05	0.283325D-04	-0.115244D-04	-0.228653D-04
7	-0.501655D-05	0.145965D-05	0.449380D-05	0.357671D-05	0.103765D-04
8	0.128742D-05	0.112194D-04	-0.295509D-04	-0.641052D-05	0.259075D-04
9	0.502076D-05	-0.271759D-06	0.132947D-04	-0.495224D-05	0.518231D-05
10	-0.194210D-04	-0.698845D-06	0.243800D-04	0.137872D-04	0.332484D-05
11	0.227071D-05	0.643833D-06	-0.248445D-05	0.222070D-05	0.533832D-06
12	0.358548D-05	-0.160668D-05	0.108539D-04	0.361168D-05	-0.843662D-05
13	0.760738D-07	0.139427D-05	-0.666209D-05	0.230798D-05	-0.180164D-05
14	-0.218241D-06	0.273818D-06	-0.368652D-05	0.480914D-06	-0.594153D-06
15	-0.346169D-06	0.107129D-06	-0.141328D-05	0.118306D-06	0.645162D-06
16	0.389693D-06	0.363356D-06	0.133985D-05	-0.755485D-06	-0.388040D-05
17	0.171962D-05	0.106374D-05	0.112763D-05	0.608644D-06	0.631110D-08
18	0.497777D-05	0.370695D-05	0.320315D-05	-0.495728D-06	0.890489D-05
19	0.154202D-05	0.127913D-05	-0.177005D-05	0.378289D-06	0.531297D-06
20	0.447701D-06	0.442980D-06	-0.303454D-06	-0.163859D-06	-0.134135D-06
21	-0.541013D-05	-0.707051D-06	0.564073D-06	0.637963D-06	-0.195137D-05
22	0.571903D-06	0.188785D-06	-0.140301D-05	0.121286D-05	0.207884D-05
23	0.344091D-05	-0.208222D-06	-0.101362D-06	-0.971900D-06	0.325537D-05
24	0.292079D-06	0.655795D-06	-0.115318D-05	-0.142941D-06	0.559810D-07

25	-0.751599D-05	-0.176742D-05	0.696858D-06	0.185636D-05	0.437051D-05
26	-0.234921D-05	-0.597078D-06	-0.199788D-05	0.776143D-06	-0.934538D-06
27	0.518308D-06	-0.119253D-05	-0.790713D-05	0.149710D-05	-0.515588D-05
28	-0.178660D-05	-0.152240D-05	0.339655D-05	0.117502D-05	-0.508425D-06
29	0.118925D-05	-0.240002D-06	0.173173D-05	0.338439D-06	0.141179D-05
30	-0.959182D-06	-0.103686D-06	-0.969555D-05	-0.358203D-05	-0.590045D-05
31	-0.119349D-05	-0.744946D-06	0.195138D-05	-0.372809D-07	0.566338D-06
32	0.929545D-06	-0.290811D-06	0.608105D-05	0.227268D-05	0.680666D-05
33	0.126513D-07	0.291698D-05	-0.110119D-04	-0.155689D-05	-0.276545D-05
34	-0.769887D-05	-0.199016D-05	0.376229D-05	-0.342253D-05	-0.263985D-05
35	-0.715080D-06	0.708126D-06	0.249330D-05	0.135981D-05	-0.506401D-05
36	-0.638628D-05	0.717910D-05	0.813637D-05	-0.430307D-05	-0.598660D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.149526D-03				
7	-0.121886D-04	0.111537D-02			
8	-0.407597D-04	-0.365892D-03	0.715260D-02		
9	0.968312D-05	0.508696D-04	0.136112D-03	0.626289D-03	
10	-0.230776D-04	-0.182277D-05	-0.492093D-03	0.106916D-03	0.228506D-02
11	0.750348D-05	-0.297866D-04	-0.365304D-03	0.151371D-04	-0.231487D-03
12	0.443108D-05	0.549675D-04	0.896658D-04	-0.746696D-04	0.938434D-04
13	-0.160397D-05	0.513919D-05	0.372591D-04	-0.734816D-05	-0.270960D-05
14	-0.647154D-06	0.212634D-05	0.971638D-05	-0.103114D-05	0.291294D-05
15	-0.377660D-06	0.220949D-06	0.617709D-05	-0.152712D-06	0.890130D-08
16	-0.190045D-05	0.707440D-05	0.297309D-05	0.156805D-04	-0.249466D-05
17	-0.152485D-05	0.280939D-05	0.193696D-04	0.298197D-05	0.215771D-05
18	-0.100445D-05	0.323577D-04	0.292084D-04	0.162699D-04	0.223677D-04
19	0.197108D-06	-0.334503D-05	-0.126510D-05	0.437008D-05	0.243250D-05
20	0.223375D-06	-0.272312D-05	-0.104434D-05	0.541627D-07	0.296241D-05
21	0.175171D-05	-0.540865D-05	-0.362253D-05	-0.220181D-05	0.443349D-05
22	-0.231602D-07	0.594999D-06	0.158962D-05	0.505414D-05	0.146935D-05
23	0.386772D-05	0.768317D-05	0.158538D-04	-0.646532D-05	-0.840729D-06
24	0.974281D-06	0.308706D-05	0.924296D-05	-0.443964D-06	-0.719762D-05
25	0.114082D-04	-0.540084D-05	0.877195D-05	0.353477D-05	-0.113146D-04
26	-0.184065D-05	0.581307D-05	-0.991863D-05	0.602970D-05	-0.642471D-05
27	-0.296154D-05	0.215090D-04	-0.584681D-04	0.240335D-04	-0.234965D-04
28	-0.153850D-05	0.856864D-05	-0.136491D-04	0.931854D-05	-0.193706D-05
29	-0.941514D-06	0.232404D-05	-0.151546D-05	0.201098D-05	-0.308816D-05
30	0.135701D-05	-0.853634D-05	-0.439108D-04	-0.711223D-05	-0.552014D-05
31	0.418365D-06	-0.859474D-05	0.146161D-04	-0.875768D-05	-0.352979D-05
32	-0.109718D-05	-0.148427D-04	0.189460D-04	-0.115400D-04	-0.211363D-04

33	0.104574D-05	0.710942D-05	-0.285038D-04	0.519177D-05	0.200923D-04
34	0.320623D-05	0.545972D-04	0.660970D-05	-0.228133D-05	-0.338781D-04
35	0.518878D-06	-0.392564D-05	0.484682D-04	-0.171547D-05	0.765881D-05
36	-0.154495D-04	0.146715D-03	0.110397D-02	-0.211845D-04	0.376178D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.690560D-03				
12	0.102879D-03	0.727443D-03			
13	0.434716D-05	0.116318D-04	0.103504D-03		
14	-0.209671D-05	0.179684D-06	0.943782D-05	0.102167D-04	
15	-0.129213D-05	-0.410169D-06	0.541963D-06	0.194496D-05	0.347990D-05
16	0.188985D-05	0.163385D-04	-0.157056D-04	-0.412515D-05	-0.127742D-05
17	-0.334487D-06	0.543486D-05	-0.179977D-05	-0.152712D-05	-0.962981D-06
18	-0.146902D-04	0.178964D-05	0.346284D-05	0.353473D-05	0.353519D-06
19	0.242341D-05	-0.142756D-05	0.508166D-05	0.261670D-05	0.434366D-06
20	-0.671840D-06	0.778682D-06	0.100367D-06	0.765520D-06	0.698237D-06
21	-0.784124D-06	-0.725809D-05	-0.129355D-05	-0.123302D-05	0.478936D-07
22	0.226759D-05	-0.200108D-06	-0.139371D-05	0.346158D-07	0.582289D-07
23	-0.445971D-05	0.110306D-04	0.710503D-05	0.560302D-05	0.174713D-05
24	0.121284D-05	0.395532D-05	0.144041D-05	0.170020D-05	0.168369D-05
25	0.775484D-05	-0.152753D-04	-0.232983D-05	-0.102751D-05	0.136714D-06
26	0.219809D-05	-0.365049D-05	-0.872226D-06	0.911576D-06	0.386114D-06
27	0.168868D-04	0.112714D-04	0.390811D-05	0.219192D-05	0.232512D-06
28	-0.250915D-05	-0.874563D-05	-0.113000D-04	-0.574661D-05	-0.747382D-06
29	0.117345D-05	0.536871D-05	-0.248665D-05	-0.177203D-05	-0.191853D-05
30	0.273263D-05	-0.151930D-04	0.218312D-05	0.936971D-06	0.788571D-06
31	0.399617D-05	-0.209335D-05	-0.304934D-05	-0.198028D-05	-0.286296D-06
32	0.306495D-05	0.256051D-05	-0.652254D-05	-0.231329D-05	-0.725195D-06
33	-0.436861D-06	0.602459D-07	0.695026D-05	0.257663D-05	0.190927D-05
34	-0.892261D-05	0.245979D-05	0.443630D-05	0.301041D-05	0.245534D-06
35	0.773498D-05	0.168581D-06	0.115071D-05	-0.724643D-06	-0.250658D-06
36	-0.913495D-04	-0.688398D-04	-0.739374D-06	0.538948D-05	0.290576D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.112761D-03				
17	0.121434D-04	0.193258D-04			
18	-0.387349D-04	-0.181040D-04	0.457917D-03		
19	-0.512634D-05	-0.599434D-06	0.313046D-05	0.226790D-04	



20	-0.943896D-06	-0.678003D-06	-0.119744D-05	0.272035D-05	0.379299D-05
21	0.714998D-05	0.453636D-05	-0.215711D-04	-0.360729D-05	-0.841716D-06
22	0.125495D-05	-0.694479D-06	-0.541660D-05	0.213853D-05	0.164519D-05
23	-0.818243D-05	-0.110168D-05	0.894927D-05	0.945273D-05	0.190683D-05
24	-0.199325D-05	-0.711109D-06	-0.972864D-06	0.124245D-05	0.174560D-05
25	0.154574D-04	0.116897D-04	-0.344989D-04	-0.690885D-06	-0.187670D-06
26	0.601330D-06	-0.113765D-06	0.609394D-05	0.341320D-05	0.212458D-05
27	0.833258D-05	-0.112015D-06	0.527576D-05	0.434973D-05	0.218114D-05
28	0.188888D-04	0.255626D-05	-0.184238D-04	-0.661558D-05	-0.138018D-05
29	0.306449D-05	0.358872D-05	-0.419084D-05	-0.873505D-06	-0.119987D-05
30	-0.153990D-04	-0.101145D-04	0.637044D-04	0.100989D-05	0.613226D-06
31	0.266778D-05	0.165680D-06	-0.791096D-05	-0.424554D-05	-0.210470D-05
32	0.464602D-05	0.163364D-05	-0.919299D-05	-0.230616D-05	-0.151692D-05
33	-0.663158D-05	-0.379216D-05	0.671385D-05	0.376330D-05	0.174480D-05
34	-0.791960D-05	-0.432094D-06	0.181533D-04	0.488594D-05	-0.103149D-05
35	0.407226D-06	0.475491D-06	0.814479D-05	-0.293239D-06	-0.578092D-06
36	-0.274330D-05	0.896725D-05	0.208500D-06	0.256467D-05	-0.289209D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.446292D-04				
22	-0.374338D-05	0.172506D-04			
23	-0.281317D-05	0.936519D-06	0.100371D-03		
24	-0.121489D-05	0.138372D-05	0.115222D-04	0.183584D-04	
25	0.244860D-04	-0.245242D-05	-0.151663D-04	-0.486518D-05	0.201203D-03
26	-0.331763D-05	0.668186D-05	0.449717D-05	0.514925D-05	-0.731149D-05
27	-0.858289D-05	0.118166D-05	0.212478D-04	0.209812D-04	-0.313189D-04
28	0.236666D-05	-0.152554D-05	-0.157800D-04	-0.170628D-05	0.710927D-05
29	0.336659D-06	-0.475120D-06	-0.250872D-05	-0.411813D-05	0.271098D-05
30	-0.139444D-04	0.154404D-05	0.506777D-05	0.111769D-05	-0.387684D-04
31	0.631082D-05	-0.433331D-05	-0.125494D-06	-0.218769D-05	0.473512D-05
32	0.387603D-05	-0.125736D-05	-0.127881D-04	-0.124840D-04	0.306541D-04
33	-0.424090D-05	0.134335D-05	0.539471D-05	0.193722D-05	-0.121056D-04
34	0.534862D-05	-0.191671D-05	-0.314749D-07	-0.203089D-05	-0.708185D-05
35	-0.624669D-06	0.593304D-07	-0.640215D-06	-0.913656D-06	-0.622934D-06
36	0.228053D-05	-0.276039D-05	0.125691D-04	-0.898519D-06	0.371348D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.402637D-04				

27	0.346864D-04	0.398754D-03			
28	-0.282463D-05	-0.451797D-05	0.828440D-04		
29	-0.832834D-06	-0.575658D-05	0.100633D-04	0.159380D-04	
30	0.412074D-05	-0.290243D-06	-0.172786D-04	-0.725513D-05	0.161413D-03
31	-0.675175D-05	-0.103625D-04	0.830636D-05	0.462720D-05	-0.909053D-05
32	-0.138352D-04	-0.643166D-04	0.146374D-04	0.113582D-04	-0.222901D-04
33	0.398170D-05	0.105888D-04	-0.169486D-04	-0.157794D-04	0.485957D-04
34	-0.309117D-05	-0.199606D-04	-0.342192D-05	-0.121153D-05	0.143446D-04
35	-0.842967D-07	0.691166D-06	0.184640D-05	0.801103D-06	0.444820D-06
36	-0.418577D-05	-0.575297D-05	0.122131D-06	-0.463374D-05	-0.459853D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.344438D-04				
32	0.183498D-04	0.166722D-03			
33	-0.184664D-04	-0.547187D-04	0.255545D-03		
34	-0.537674D-05	-0.130775D-05	0.785758D-05	0.786983D-03	
35	0.131005D-06	-0.925937D-06	0.333482D-05	0.334548D-04	0.653232D-04
36	0.107845D-05	0.564238D-05	0.243334D-05	-0.686343D-04	0.465635D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.121347D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.273	1.000			
3	-0.128	-0.121	1.000		
4	0.051	0.155	-0.110	1.000	
5	0.031	0.119	-0.079	0.172	1.000
6	-0.074	-0.177	0.163	-0.152	-0.142
7	-0.016	0.010	0.009	0.017	0.024
8	0.002	0.032	-0.025	-0.012	0.023
9	0.021	-0.003	0.037	-0.032	0.016
10	-0.042	-0.003	0.036	0.046	0.005
11	0.009	0.006	-0.007	0.014	0.002
12	0.014	-0.014	0.028	0.022	-0.024

13	0.001	0.033	-0.046	0.037	-0.013
14	-0.007	0.020	-0.081	0.024	-0.014
15	-0.019	0.014	-0.053	0.010	0.026
16	0.004	0.008	0.009	-0.011	-0.028
17	0.040	0.058	0.018	0.022	0.000
18	0.024	0.041	0.011	-0.004	0.032
19	0.033	0.064	-0.026	0.013	0.008
20	0.024	0.054	-0.011	-0.014	-0.005
21	-0.084	-0.025	0.006	0.015	-0.022
22	0.014	0.011	-0.024	0.047	0.038
23	0.035	-0.005	-0.001	-0.016	0.025
24	0.007	0.037	-0.019	-0.005	0.001
25	-0.055	-0.030	0.003	0.021	0.023
26	-0.038	-0.022	-0.022	0.020	-0.011
27	0.003	-0.014	-0.028	0.012	-0.020
28	-0.020	-0.040	0.026	0.021	-0.004
29	0.031	-0.014	0.031	0.014	0.027
30	-0.008	-0.002	-0.054	-0.045	-0.035
31	-0.021	-0.030	0.023	-0.001	0.007
32	0.007	-0.005	0.033	0.028	0.040
33	0.000	0.044	-0.049	-0.016	-0.013
34	-0.028	-0.017	0.009	-0.020	-0.007
35	-0.009	0.021	0.022	0.027	-0.047
36	-0.019	0.049	0.016	-0.020	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.030	1.000			
8	-0.039	-0.130	1.000		
9	0.032	0.061	0.064	1.000	
10	-0.039	-0.001	-0.122	0.089	1.000
11	0.023	-0.034	-0.164	0.023	-0.184
12	0.013	0.061	0.039	-0.111	0.073
13	-0.013	0.015	0.043	-0.029	-0.006
14	-0.017	0.020	0.036	-0.013	0.019
15	-0.017	0.004	0.039	-0.003	0.000
16	-0.015	0.020	0.003	0.059	-0.005
17	-0.028	0.019	0.052	0.027	0.010
18	-0.004	0.045	0.016	0.030	0.022
19	0.003	-0.021	-0.003	0.037	0.011
20	0.009	-0.042	-0.006	0.001	0.032

21	0.021	-0.024	-0.006	-0.013	0.014
22	0.000	0.004	0.005	0.049	0.007
23	0.032	0.023	0.019	-0.026	-0.002
24	0.019	0.022	0.026	-0.004	-0.035
25	0.066	-0.011	0.007	0.010	-0.017
26	-0.024	0.027	-0.018	0.038	-0.021
27	-0.012	0.032	-0.035	0.048	-0.025
28	-0.014	0.028	-0.018	0.041	-0.004
29	-0.019	0.017	-0.004	0.020	-0.016
30	0.009	-0.020	-0.041	-0.022	-0.009
31	0.006	-0.044	0.029	-0.060	-0.013
32	-0.007	-0.034	0.017	-0.036	-0.034
33	0.005	0.013	-0.021	0.013	0.026
34	0.009	0.058	0.003	-0.003	-0.025
35	0.005	-0.015	0.071	-0.008	0.020
36	-0.036	0.126	0.375	-0.024	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.145	1.000			
13	0.016	0.042	1.000		
14	-0.025	0.002	0.290	1.000	
15	-0.026	-0.008	0.029	0.326	1.000
16	0.007	0.057	-0.145	-0.122	-0.064
17	-0.003	0.046	-0.040	-0.109	-0.117
18	-0.026	0.003	0.016	0.052	0.009
19	0.019	-0.011	0.105	0.172	0.049
20	-0.013	0.015	0.005	0.123	0.192
21	-0.004	-0.040	-0.019	-0.058	0.004
22	0.021	-0.002	-0.033	0.003	0.008
23	-0.017	0.041	0.070	0.175	0.093
24	0.011	0.034	0.033	0.124	0.211
25	0.021	-0.040	-0.016	-0.023	0.005
26	0.013	-0.021	-0.014	0.045	0.033
27	0.032	0.021	0.019	0.034	0.006
28	-0.010	-0.036	-0.122	-0.198	-0.044
29	0.011	0.050	-0.061	-0.139	-0.258
30	0.008	-0.044	0.017	0.023	0.033
31	0.026	-0.013	-0.051	-0.106	-0.026
32	0.009	0.007	-0.050	-0.056	-0.030
33	-0.001	0.000	0.043	0.050	0.064

34	-0.012	0.003	0.016	0.034	0.005
35	0.036	0.001	0.014	-0.028	-0.017
36	-0.100	-0.073	-0.002	0.048	0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.260	1.000			
18	-0.170	-0.192	1.000		
19	-0.101	-0.029	0.031	1.000	
20	-0.046	-0.079	-0.029	0.293	1.000
21	0.101	0.154	-0.151	-0.113	-0.065
22	0.028	-0.038	-0.061	0.108	0.203
23	-0.077	-0.025	0.042	0.198	0.098
24	-0.044	-0.038	-0.011	0.061	0.209
25	0.103	0.187	-0.114	-0.010	-0.007
26	0.009	-0.004	0.045	0.113	0.172
27	0.039	-0.001	0.012	0.046	0.056
28	0.195	0.064	-0.095	-0.153	-0.078
29	0.072	0.204	-0.049	-0.046	-0.154
30	-0.114	-0.181	0.234	0.017	0.025
31	0.043	0.006	-0.063	-0.152	-0.184
32	0.034	0.029	-0.033	-0.038	-0.060
33	-0.039	-0.054	0.020	0.049	0.056
34	-0.027	-0.004	0.030	0.037	-0.019
35	0.005	0.013	0.047	-0.008	-0.037
36	-0.007	0.059	0.000	0.015	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.135	1.000			
23	-0.042	0.023	1.000		
24	-0.042	0.078	0.268	1.000	
25	0.258	-0.042	-0.107	-0.080	1.000
26	-0.078	0.254	0.071	0.189	-0.081
27	-0.064	0.014	0.106	0.245	-0.111
28	0.039	-0.040	-0.173	-0.044	0.055
29	0.013	-0.029	-0.063	-0.241	0.048
30	-0.164	0.029	0.040	0.021	-0.215

31	0.161	-0.178	-0.002	-0.087	0.057
32	0.045	-0.023	-0.099	-0.226	0.167
33	-0.040	0.020	0.034	0.028	-0.053
34	0.029	-0.016	0.000	-0.017	-0.018
35	-0.012	0.002	-0.008	-0.026	-0.005
36	0.010	-0.019	0.036	-0.006	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.274	1.000			
28	-0.049	-0.025	1.000		
29	-0.033	-0.072	0.277	1.000	
30	0.051	-0.001	-0.149	-0.143	1.000
31	-0.181	-0.088	0.155	0.197	-0.122
32	-0.169	-0.249	0.125	0.220	-0.136
33	0.039	0.033	-0.116	-0.247	0.239
34	-0.017	-0.036	-0.013	-0.011	0.040
35	-0.002	0.004	0.025	0.025	0.004
36	-0.019	-0.008	0.000	-0.033	-0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.242	1.000			
33	-0.197	-0.265	1.000		
34	-0.033	-0.004	0.018	1.000	
35	0.003	-0.009	0.026	0.148	1.000
36	0.005	0.013	0.004	-0.070	0.165

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.010	13
200	1.007	18
300	1.006	6
400	1.003	30
500	1.005	32
600	1.003	32
700	1.002	18
800	1.002	25
900	1.002	27
1000	1.001	27

Worsening of distress, curvilinear effects

#### SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122



186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PRAFACSQ	PHY15	KES15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PRAFACSQ	1.000	1.000	1.000		
PHY15	0.950	0.950	0.950	0.950	
KES15	0.919	0.919	0.919	0.919	0.919
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.913
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.913			
BULLY15	0.912	0.913		
PRESS15	0.913	0.912	0.913	
DUTIES15	0.913	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16  
 Category 1 0.877 5135.000  
 Category 2 0.123 720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC 58.000	-0.185 1.345	0.245 -0.636	-2.338 2.338	1.72% 1.72%	-1.448 0.080	-0.527 0.752	-0.318
PRAFACSQ 58.000	1.379 2.369	1.240 0.557	0.002 5.467	1.72% 1.72%	0.151 1.168	0.381 2.366	0.681
PHY15 5563.000	0.000 0.536	0.526 0.021	-0.865 3.135	32.48% 0.07%	-0.865 0.135	0.135 0.135	0.135
KES15 5382.000	0.000 0.095	0.475 -0.842	-0.374 0.626	22.78% 6.60%	-0.374 -0.041	-0.207 0.293	-0.041
CHOICE15 5345.000	0.000 1.097	-0.400 -0.356	-2.221 1.779	7.67% 8.62%	-1.221 0.779	-0.221 0.779	-0.221
BULLY15 5344.000	0.000 0.216	3.522 14.164	-0.153 3.847	88.29% 0.09%	-0.153 -0.153	-0.153 -0.153	-0.153
PRESS15 5345.000	0.000 1.001	0.267 -0.357	-1.445 2.555	19.70% 2.75%	-0.445 0.555	-0.445 0.555	-0.445
DUTIES15 5347.000	0.000 0.828	-1.296 1.939	-3.149 0.851	2.34% 39.74%	-0.149 -0.149	-0.149 0.851	-0.149

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
 OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

42

# Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-21.646                      30.855

Posterior Predictive P-Value                      0.458

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.137	0.034	0.000	0.070	0.200	*
CHOICE15	-0.058	0.025	0.012	-0.106	-0.006	*
BULLY15	0.111	0.048	0.013	0.010	0.204	*
DUTIES15	-0.081	0.028	0.004	-0.135	-0.027	*
PRESS15	-0.034	0.025	0.095	-0.085	0.018	
KES15	1.611	0.087	0.000	1.445	1.787	*
KES15 WITH						
PHY15	0.055	0.003	0.000	0.048	0.061	*
CHOICE15	-0.036	0.004	0.000	-0.045	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.045	0.062	*
DUTIES15	-0.051	0.004	0.000	-0.059	-0.043	*
PHY15 WITH						
CHOICE15	-0.093	0.010	0.000	-0.112	-0.073	*
BULLY15	0.024	0.005	0.000	0.016	0.033	*
PRESS15	0.063	0.010	0.000	0.042	0.084	*
DUTIES15	-0.057	0.009	0.000	-0.075	-0.040	*
CHOICE15 WITH						
BULLY15	-0.052	0.007	0.000	-0.065	-0.038	*
PRESS15	-0.078	0.014	0.000	-0.106	-0.050	*
DUTIES15	0.160	0.013	0.000	0.134	0.185	*

BULLY15 WITH						
PRESS15	0.090	0.007	0.000	0.078	0.103	*
DUTIES15	-0.059	0.006	0.000	-0.070	-0.047	*
PRESS15 WITH						
DUTIES15	-0.156	0.013	0.000	-0.182	-0.132	*
Means						
PHY15	0.002	0.010	0.424	-0.017	0.021	
KES15	0.003	0.004	0.259	-0.005	0.011	
CHOICE15	-0.004	0.014	0.407	-0.031	0.025	
BULLY15	0.001	0.006	0.402	-0.011	0.014	
PRESS15	0.003	0.014	0.432	-0.025	0.028	
DUTIES15	-0.004	0.013	0.395	-0.027	0.021	
Variances						
PHY15	0.536	0.010	0.000	0.516	0.556	*
KES15	0.096	0.002	0.000	0.093	0.100	*
CHOICE15	1.098	0.022	0.000	1.058	1.143	*
BULLY15	0.216	0.004	0.000	0.208	0.224	*
PRESS15	1.001	0.020	0.000	0.964	1.040	*
DUTIES15	0.829	0.016	0.000	0.798	0.861	*
Between Level						
KESCAT16 ON						
PRAFAC	0.015	0.030	0.318	-0.044	0.072	
PRAFACSQ	-0.014	0.022	0.274	-0.059	0.030	
PRAFAC WITH						
PRAFACSQ	-0.098	0.242	0.328	-0.604	0.364	
Means						
PRAFAC	-0.193	0.155	0.111	-0.517	0.115	
PRAFACSQ	1.375	0.205	0.000	0.980	1.780	*
Thresholds						
KESCAT16\$1	1.338	0.041	0.000	1.260	1.422	*
Variances						
PRAFAC	1.363	0.265	0.000	0.970	1.980	*
PRAFACSQ	2.382	0.468	0.000	1.702	3.513	*
Residual Variances						

KESCAT16	0.010	0.008	0.000	0.001	0.030	*
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# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
	PHY15	0.087	0.021	0.000	0.045	0.127	*
	CHOICE15	-0.053	0.023	0.012	-0.096	-0.005	*
	BULLY15	0.045	0.019	0.013	0.004	0.082	*
	DUTIES15	-0.064	0.022	0.004	-0.106	-0.021	*
	PRESS15	-0.029	0.022	0.095	-0.073	0.015	
	KES15	0.433	0.020	0.000	0.395	0.472	*
KES15	WITH						
	PHY15	0.241	0.013	0.000	0.215	0.266	*
	CHOICE15	-0.113	0.013	0.000	-0.137	-0.088	*
	BULLY15	0.154	0.013	0.000	0.128	0.179	*
	PRESS15	0.172	0.013	0.000	0.146	0.197	*
	DUTIES15	-0.181	0.014	0.000	-0.206	-0.153	*
PHY15	WITH						
	CHOICE15	-0.121	0.013	0.000	-0.146	-0.095	*
	BULLY15	0.072	0.013	0.000	0.046	0.098	*
	PRESS15	0.086	0.014	0.000	0.058	0.114	*
	DUTIES15	-0.085	0.014	0.000	-0.113	-0.060	*
CHOICE15	WITH						
	BULLY15	-0.107	0.014	0.000	-0.133	-0.078	*
	PRESS15	-0.074	0.013	0.000	-0.101	-0.048	*
	DUTIES15	0.168	0.013	0.000	0.141	0.193	*
BULLY15	WITH						
	PRESS15	0.195	0.013	0.000	0.168	0.220	*
	DUTIES15	-0.139	0.014	0.000	-0.164	-0.111	*
PRESS15	WITH						
	DUTIES15	-0.171	0.013	0.000	-0.199	-0.146	*

Means						
PHY15	0.002	0.013	0.424	-0.024	0.029	
KES15	0.010	0.014	0.259	-0.017	0.037	
CHOICE15	-0.004	0.013	0.407	-0.030	0.024	
BULLY15	0.003	0.013	0.402	-0.023	0.030	
PRESS15	0.003	0.014	0.432	-0.025	0.028	
DUTIES15	-0.004	0.014	0.395	-0.030	0.023	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
KESCAT16 ON						
PRAFAC	0.162	0.304	0.318	-0.487	0.683	
PRAFACSQ	-0.196	0.307	0.274	-0.778	0.410	
PRAFAC WITH						
PRAFACSQ	-0.057	0.126	0.328	-0.301	0.189	
Means						
PRAFAC	-0.163	0.133	0.111	-0.432	0.101	
PRAFACSQ	0.895	0.158	0.000	0.592	1.214	*
Thresholds						
KESCAT16\$1	11.816	4.848	0.000	6.917	25.915	*
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.810	0.197	0.000	0.271	0.993	*
R-SQUARE						
Within Level						

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.245	0.017	0.000	0.212	0.279

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.190	0.197	0.000	0.007	0.729

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
KESCAT16      0                      0                      0                      0  
PHY15              0                      0                      0                      0  
KES15              0                      0                      0                      0

CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA



PRESS15	DUTIES15
<hr/> 5	<hr/> 6

BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 0	<hr/> 7	<hr/> 8	<hr/> 9	<hr/> 10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
KESCAT16	<hr/> 11	<hr/> 12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

PRESS15	DUTIES15
<hr/>	<hr/>

PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
KESCAT16	
_____	_____
	42

NU			
KESCAT16	PRAFAC	PRAFACSQ	
_____	_____	_____	_____
0	0	0	

	LAMBDA			
	KESCAT16	PRAFAC	PRAFACSQ	
	_____	_____	_____	_____
KESCAT16	0	0	0	
PRAFAC	0	0	0	
PRAFACSQ	0	0	0	

	THETA			
	KESCAT16	PRAFAC	PRAFACSQ	
	_____	_____	_____	_____
KESCAT16	0			
PRAFAC	0	0		
PRAFACSQ	0	0	0	

	ALPHA			
	KESCAT16	PRAFAC	PRAFACSQ	
	_____	_____	_____	_____
	0	34	35	

	BETA			
	KESCAT16	PRAFAC	PRAFACSQ	
	_____	_____	_____	_____

KESCAT16	0	36	37
PRAFAC	0	0	0
PRAFACSQ	0	0	0

	PSI		
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<u>38</u>	<u>          </u>	<u>          </u>
PRAFAC	0	39	
PRAFACSQ	0	40	41

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<u>0.000</u>

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA			
	PRESS15	DUTIES15	
KESCAT16	0.000	0.000	
PHY15	0.000	0.000	
KES15	0.000	0.000	
CHOICE15	0.000	0.000	
BULLY15	0.000	0.000	
PRESS15	0.000	0.000	
DUTIES15	0.000	0.000	

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.268			
KES15	0.000	0.000	0.048		
CHOICE15	0.000	0.000	0.000	0.549	
BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI			
	PRESS15	DUTIES15	
PRESS15	0.501		
DUTIES15	0.000	0.414	

STARTING VALUES FOR BETWEEN

TAU  
KESCAT16  

---

1.091

NU  
KESCAT16      PRAFAC      PRAFACSQ  

---

0.000      0.000      0.000

LAMBDA  
KESCAT16      PRAFAC      PRAFACSQ  

---

KESCAT16      1.000      0.000      0.000  
PRAFAC      0.000      1.000      0.000  
PRAFACSQ      0.000      0.000      1.000

THETA  
KESCAT16      PRAFAC      PRAFACSQ  

---

KESCAT16      0.000  
PRAFAC      0.000      0.000  
PRAFACSQ      0.000      0.000      0.000

ALPHA  
KESCAT16      PRAFAC      PRAFACSQ  

---

0.000      0.006      1.011

BETA  
KESCAT16      PRAFAC      PRAFACSQ  

---

KESCAT16      0.000      0.000      0.000  
PRAFAC      0.000      0.000      0.000  
PRAFACSQ      0.000      0.000      0.000

	PSI		
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	1.000		
PRAFAC	0.000	0.506	
PRAFACSQ	0.000	0.000	0.754

PRIORS FOR ALL PARAMETERS

PRIOR MEAN

PRIOR VARIANCE

PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity

Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.936376D-04				
2	0.798366D-05	0.180550D-04			
3	-0.139165D-04	-0.513896D-05	0.197589D-03		
4	0.428187D-05	0.342311D-05	-0.777480D-05	0.390046D-04	
5	0.825446D-05	0.991003D-05	-0.150790D-04	0.148541D-04	0.189934D-03
6	-0.776397D-05	-0.106769D-04	0.290380D-04	-0.114346D-04	-0.247479D-04
7	0.172071D-04	0.277540D-05	0.143274D-04	-0.503293D-05	0.450042D-05
8	0.157626D-04	0.143151D-04	0.138590D-05	-0.122530D-04	-0.698018D-04
9	0.444078D-05	-0.287563D-05	0.888645D-05	-0.312326D-05	-0.726351D-05
10	0.105927D-04	-0.604540D-05	-0.916626D-05	0.354423D-05	0.113812D-04
11	-0.750425D-05	0.109195D-05	0.668481D-05	0.439885D-05	0.212506D-04
12	-0.264777D-05	-0.749300D-06	0.137097D-04	0.118408D-05	-0.208235D-05
13	-0.542251D-06	-0.935162D-07	-0.382717D-05	0.823720D-06	-0.365313D-05
14	0.997927D-06	0.313457D-06	-0.167799D-05	0.362463D-06	-0.252420D-05
15	-0.603042D-06	0.178470D-06	-0.813909D-06	0.161104D-06	-0.848163D-06
16	0.325538D-05	0.190566D-05	0.426367D-06	-0.265576D-05	-0.336404D-05
17	0.237843D-05	-0.314499D-06	0.235277D-05	0.110500D-07	0.222123D-05
18	0.126620D-05	-0.251506D-05	-0.719580D-05	0.318858D-05	0.337478D-05
19	-0.252857D-06	0.300966D-07	-0.362052D-05	0.722086D-06	-0.133027D-05
20	-0.200829D-06	-0.144424D-06	-0.118382D-05	0.736533D-06	0.296962D-06
21	0.611410D-07	0.126804D-05	0.434402D-05	-0.164904D-05	0.293353D-05
22	-0.610743D-06	-0.186243D-06	-0.405319D-06	0.352253D-07	-0.129221D-05
23	-0.636655D-06	0.109159D-05	0.425256D-06	0.415755D-06	-0.169736D-06
24	0.139711D-05	-0.316878D-06	-0.255060D-05	-0.183652D-06	-0.842914D-06
25	-0.272720D-05	-0.115012D-05	-0.396317D-06	0.134804D-06	0.355169D-05
26	-0.159663D-05	-0.437511D-06	-0.162127D-05	0.205379D-05	-0.239065D-05



27	-0.544231D-05	0.180993D-06	-0.288022D-05	0.771292D-05	0.947329D-05
28	0.281154D-05	-0.685744D-06	0.584488D-06	-0.661520D-06	-0.315334D-06
29	0.114462D-05	-0.343219D-06	0.662875D-06	-0.336570D-06	0.360754D-06
30	0.131046D-06	-0.115108D-06	-0.641392D-05	0.181413D-05	0.162024D-05
31	-0.325257D-06	0.701267D-06	0.647244D-06	0.111801D-06	-0.339825D-05
32	-0.262871D-06	0.253804D-06	0.124549D-05	0.152323D-05	-0.594614D-05
33	0.281106D-05	0.295460D-05	0.899521D-06	0.340270D-06	0.461483D-05
34	-0.501569D-04	-0.361975D-04	0.138492D-04	-0.289004D-04	-0.951293D-04
35	-0.184473D-04	-0.357845D-05	-0.628552D-04	-0.576733D-05	0.780104D-04
36	0.105755D-04	0.687630D-06	0.795754D-05	0.174293D-05	0.559290D-05
37	0.755044D-05	-0.357276D-05	0.787148D-06	0.221980D-05	0.221149D-04
38	0.304715D-05	-0.802135D-06	0.252475D-05	-0.119748D-05	-0.453141D-05
39	0.631123D-04	0.731793D-05	0.285957D-04	0.255995D-04	0.326797D-04
40	0.714708D-04	-0.452067D-04	0.755049D-04	0.299641D-04	0.262083D-04
41	-0.656249D-04	0.867958D-05	-0.306502D-04	-0.794914D-04	0.895938D-04
42	0.684324D-05	-0.171187D-05	0.891961D-05	-0.522134D-05	0.856064D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.159097D-03				
7	0.147111D-04	0.113637D-02			
8	-0.169300D-04	-0.519239D-03	0.751088D-02		
9	0.661862D-05	0.731145D-04	0.466895D-04	0.621778D-03	
10	0.447360D-05	-0.103191D-03	-0.303258D-03	0.133235D-03	0.231090D-02
11	-0.287684D-06	0.266631D-04	-0.241751D-03	0.363344D-04	-0.248389D-03
12	0.598323D-05	-0.549501D-04	0.226588D-03	-0.864860D-04	0.132760D-03
13	-0.186349D-05	0.302217D-05	0.354013D-04	0.565575D-05	-0.446150D-05
14	-0.110071D-05	-0.217111D-05	-0.134730D-04	0.217762D-05	-0.166146D-05
15	0.533760D-06	0.118923D-05	-0.393903D-05	-0.191578D-05	-0.376659D-05
16	0.874712D-06	0.100741D-04	-0.184030D-04	0.238484D-05	0.228652D-04
17	0.119028D-05	0.564686D-05	-0.135748D-04	0.286480D-05	0.764003D-05
18	-0.844904D-05	0.774765D-05	0.786659D-04	0.232232D-04	-0.327712D-04
19	-0.953784D-06	-0.444667D-05	-0.650617D-05	0.189996D-05	-0.286594D-05
20	0.549754D-06	-0.859039D-06	-0.454772D-07	-0.149481D-05	-0.224479D-06
21	-0.167357D-06	0.424401D-05	-0.204377D-04	-0.480394D-06	0.126743D-04
22	0.699982D-06	-0.280941D-06	-0.206755D-05	-0.498132D-05	-0.432695D-05
23	0.591731D-05	-0.122057D-04	-0.374653D-04	0.462366D-05	-0.219357D-04
24	0.119562D-06	0.455118D-06	-0.274521D-04	-0.481839D-05	-0.888635D-07
25	-0.120865D-05	0.107105D-04	0.168672D-04	-0.191219D-05	0.260835D-04
26	-0.282489D-05	-0.343151D-05	-0.116012D-04	-0.272208D-05	-0.896016D-05
27	-0.763339D-05	0.756672D-05	-0.484187D-04	0.511294D-05	-0.401999D-04
28	0.631431D-05	0.994513D-06	-0.141634D-04	-0.100015D-04	-0.161750D-04

29	-0.442053D-06	-0.100214D-05	0.399358D-05	0.357225D-06	-0.165566D-05
30	-0.847478D-06	0.123977D-04	-0.345000D-05	0.405364D-05	-0.125133D-04
31	-0.258278D-05	-0.978871D-06	0.177815D-04	0.443962D-05	-0.272319D-05
32	0.867448D-06	0.351479D-05	0.140579D-04	0.118035D-04	0.160325D-04
33	0.227722D-05	0.222644D-04	0.389210D-04	-0.472781D-05	0.554492D-05
34	0.551248D-04	-0.845585D-04	0.378094D-03	0.233877D-04	-0.106517D-03
35	0.752659D-04	-0.745201D-04	-0.786902D-03	0.403442D-04	-0.282621D-03
36	0.139616D-04	0.262190D-04	0.842349D-04	0.957143D-05	0.754860D-05
37	0.144420D-05	0.591610D-04	0.409939D-06	0.114770D-04	0.675244D-06
38	-0.139282D-05	-0.120001D-04	0.860331D-04	0.791273D-07	0.545885D-05
39	-0.162206D-03	-0.212642D-04	0.234836D-03	-0.356067D-04	0.860694D-04
40	0.928749D-04	0.160448D-03	-0.297286D-04	0.225675D-03	0.362081D-03
41	-0.592667D-05	0.694818D-03	0.553473D-03	-0.530326D-04	-0.675805D-03
42	0.925171D-06	0.136104D-03	0.106923D-02	0.119305D-05	-0.123636D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.649403D-03				
12	0.438172D-04	0.756573D-03			
13	0.113471D-04	-0.390401D-05	0.100574D-03		
14	0.387696D-05	-0.243870D-05	0.104525D-04	0.103680D-04	
15	0.619117D-06	-0.127442D-05	0.440537D-06	0.197778D-05	0.319128D-05
16	-0.582476D-05	-0.169281D-05	-0.158118D-04	-0.344695D-05	-0.486830D-06
17	-0.199409D-05	-0.461963D-06	-0.143519D-05	-0.197098D-05	-0.144204D-05
18	-0.214895D-05	-0.141434D-04	-0.152721D-05	-0.438176D-06	0.300765D-06
19	0.384942D-05	-0.320620D-05	0.326620D-05	0.257574D-05	0.438089D-06
20	-0.111119D-05	0.227005D-05	-0.558227D-06	0.518323D-06	0.824246D-06
21	0.150019D-05	0.898004D-07	0.136539D-05	-0.465619D-06	-0.323423D-06
22	-0.274846D-05	0.847172D-05	-0.315592D-06	-0.377755D-06	0.271254D-08
23	0.185634D-04	-0.560123D-06	0.132194D-04	0.629707D-05	0.131111D-05
24	0.314546D-05	-0.107129D-05	0.168452D-05	0.226957D-05	0.192678D-05
25	-0.116203D-04	-0.472042D-05	-0.301977D-05	-0.265591D-05	-0.113179D-05
26	0.805256D-05	0.301799D-05	-0.270752D-06	0.394769D-06	0.303543D-06
27	0.346999D-04	-0.824826D-05	0.214210D-05	0.260825D-05	0.422167D-06
28	-0.542253D-05	-0.603467D-05	-0.870745D-05	-0.529695D-05	-0.154981D-05
29	-0.234475D-05	0.254876D-06	-0.511309D-06	-0.142145D-05	-0.195565D-05
30	-0.252784D-05	-0.393925D-05	0.117195D-05	0.318582D-06	0.328542D-07
31	-0.156314D-05	-0.611671D-06	-0.161751D-05	-0.235350D-06	-0.372045D-06
32	0.379159D-05	-0.427406D-05	0.167067D-06	-0.197475D-05	-0.127000D-05
33	-0.638025D-05	-0.723987D-07	0.336361D-05	0.248436D-05	0.537111D-06
34	-0.895078D-04	0.399648D-04	0.301747D-04	-0.867784D-05	0.974836D-05
35	-0.761229D-04	0.147959D-03	0.144337D-03	0.116368D-04	-0.381594D-05

36	0.168125D-04	-0.127808D-04	0.577202D-05	0.234184D-05	0.100888D-05
37	0.260907D-04	0.293157D-05	0.638698D-05	0.115854D-05	0.261200D-05
38	0.558848D-05	-0.441818D-05	-0.250894D-05	-0.750235D-06	-0.440692D-06
39	0.277805D-04	-0.982712D-04	-0.928312D-04	0.152161D-04	-0.923182D-05
40	-0.532866D-04	-0.402027D-04	0.962812D-07	0.151931D-04	0.377091D-05
41	-0.101980D-03	0.991491D-04	-0.306529D-04	-0.111714D-04	-0.109583D-04
42	0.236772D-04	-0.930998D-05	0.195497D-04	-0.769977D-06	0.532461D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.105695D-03				
17	0.110289D-04	0.187708D-04			
18	-0.369038D-04	-0.131481D-04	0.475333D-03		
19	-0.574518D-05	-0.728626D-06	-0.236230D-06	0.211002D-04	
20	-0.758194D-06	-0.678403D-06	0.147940D-07	0.204817D-05	0.373963D-05
21	0.600202D-05	0.600208D-05	-0.202867D-04	-0.367669D-05	-0.175588D-05
22	-0.187824D-05	0.296044D-07	0.297412D-05	0.823431D-06	0.183088D-05
23	-0.837103D-05	-0.134098D-05	-0.687443D-05	0.908284D-05	0.110489D-05
24	-0.127740D-05	-0.192354D-05	0.315858D-05	0.215537D-05	0.181381D-05
25	0.139951D-04	0.987417D-05	-0.177998D-04	-0.415229D-05	-0.109456D-05
26	-0.415642D-06	0.353088D-07	0.108477D-05	0.228915D-05	0.230117D-05
27	-0.119059D-05	-0.278889D-05	-0.310386D-06	0.132760D-05	0.229358D-05
28	0.200709D-04	0.165650D-05	-0.141874D-05	-0.677312D-05	-0.168160D-05
29	0.317159D-05	0.374112D-05	-0.770272D-05	-0.157172D-05	-0.142962D-05
30	-0.119144D-04	-0.100380D-04	0.624701D-04	0.175638D-05	0.490262D-06
31	0.659495D-06	0.101655D-05	-0.387504D-05	-0.230501D-05	-0.203898D-05
32	0.306063D-05	0.230527D-05	-0.208348D-05	-0.278087D-05	-0.173627D-05
33	-0.272658D-05	-0.231570D-05	0.222853D-04	0.333777D-05	0.186872D-05
34	-0.422025D-04	-0.156983D-04	-0.786013D-05	-0.143857D-04	0.833947D-05
35	-0.499590D-04	0.141645D-04	-0.861108D-04	-0.129444D-04	-0.110995D-05
36	0.328145D-05	-0.106693D-05	0.112064D-04	0.577235D-05	-0.175772D-05
37	0.372073D-05	0.147909D-05	-0.131083D-04	-0.288753D-05	0.129310D-05
38	0.129700D-05	-0.761496D-06	0.707680D-05	-0.597038D-07	-0.236081D-06
39	-0.419593D-04	0.498939D-04	-0.113525D-03	0.736222D-05	0.172463D-05
40	-0.233754D-04	-0.252458D-04	0.139287D-03	-0.176018D-05	0.405224D-05
41	0.177922D-03	0.690945D-04	-0.101292D-03	0.934580D-05	-0.204697D-04
42	-0.429792D-05	-0.590624D-05	0.190138D-04	-0.257616D-05	0.557262D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	21	22	23	24

21	0.458436D-04				
22	-0.330044D-05	0.170144D-04			
23	0.110388D-05	-0.210349D-05	0.106924D-03		
24	-0.466840D-06	0.365379D-06	0.110371D-04	0.180382D-04	
25	0.242270D-04	-0.234490D-05	-0.193859D-04	-0.790458D-05	0.196916D-03
26	-0.283642D-05	0.781312D-05	0.355459D-05	0.457684D-05	-0.131372D-04
27	-0.201778D-05	0.186976D-05	0.204426D-04	0.187654D-04	-0.225937D-04
28	0.232128D-07	-0.689167D-06	-0.146955D-04	-0.346030D-05	0.659038D-05
29	0.196373D-05	-0.359116D-06	-0.164920D-05	-0.363940D-05	0.209071D-05
30	-0.145602D-04	-0.179364D-06	0.265358D-05	0.183067D-05	-0.350349D-04
31	0.719298D-05	-0.501977D-05	-0.129441D-05	-0.159020D-05	0.525034D-05
32	-0.384654D-06	-0.236441D-05	-0.181576D-04	-0.118768D-04	0.213787D-04
33	-0.287212D-05	0.183331D-05	0.465109D-05	0.457505D-05	-0.127064D-04
34	-0.206906D-04	0.565016D-05	-0.118435D-04	0.161091D-04	-0.644786D-05
35	0.135624D-04	0.483789D-04	0.165749D-04	-0.885117D-05	0.329565D-04
36	-0.285392D-05	-0.717848D-06	0.218229D-06	-0.302246D-05	0.116619D-04
37	0.440634D-05	-0.133222D-05	0.582675D-05	0.229604D-05	0.362106D-05
38	-0.225222D-05	0.191423D-06	-0.427673D-06	-0.131804D-05	0.433801D-05
39	-0.836329D-05	-0.160629D-04	-0.227216D-04	0.439022D-06	-0.321689D-04
40	-0.178854D-04	-0.547235D-05	-0.971060D-04	0.418885D-04	0.114366D-03
41	0.178099D-03	0.124087D-04	-0.107239D-03	0.148765D-04	0.646812D-04
42	-0.735854D-05	0.962635D-06	0.478357D-06	-0.290690D-06	0.154865D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.429073D-04				
27	0.309082D-04	0.381411D-03			
28	-0.244499D-05	-0.361976D-05	0.836208D-04		
29	0.364815D-06	-0.261184D-05	0.108049D-04	0.172511D-04	
30	0.171814D-05	0.645759D-05	-0.101494D-04	-0.925366D-05	0.176384D-03
31	-0.759520D-05	-0.694752D-05	0.587960D-05	0.451893D-05	-0.107452D-04
32	-0.137044D-04	-0.519626D-04	0.170987D-04	0.107471D-04	-0.111699D-04
33	0.358190D-06	-0.160437D-05	-0.280994D-04	-0.165662D-04	0.516838D-04
34	0.440951D-05	0.430705D-04	-0.671801D-04	-0.323214D-04	0.690480D-04
35	-0.563659D-05	0.614844D-04	0.205998D-04	0.957378D-05	0.341783D-04
36	-0.345625D-05	-0.195904D-04	-0.136696D-04	0.183726D-05	0.119387D-05
37	0.387662D-06	0.137986D-04	0.127373D-05	0.265179D-05	-0.202521D-05
38	-0.789682D-06	0.189550D-05	0.750429D-06	0.117449D-05	-0.512112D-05
39	-0.126075D-04	-0.187320D-03	-0.635806D-04	-0.189193D-04	0.157089D-04
40	-0.558518D-04	0.507137D-04	-0.418224D-04	0.129709D-04	0.271241D-04
41	0.446933D-04	-0.117524D-04	0.945241D-04	0.750360D-04	-0.305802D-04
42	0.236552D-05	-0.135803D-04	0.700610D-05	0.268076D-05	0.524864D-06

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	31	32	33	34	35
31	0.349419D-04				
32	0.136876D-04	0.158417D-03			
33	-0.203419D-04	-0.524502D-04	0.259598D-03		
34	-0.263082D-04	-0.682052D-04	0.225060D-04	0.240404D-01	
35	-0.251741D-04	-0.125081D-04	-0.100896D-03	-0.154445D-02	0.418731D-01
36	-0.478218D-05	0.120179D-04	0.572839D-05	0.971567D-04	0.216609D-03
37	0.235646D-05	0.185329D-05	0.526547D-05	-0.136980D-03	0.767372D-04
38	0.178709D-05	0.229105D-05	-0.404966D-05	0.314829D-04	0.304299D-04
39	0.298318D-04	0.108147D-06	0.802925D-04	0.707416D-03	-0.329513D-03
40	0.637716D-05	-0.167134D-04	-0.346625D-04	0.149440D-02	-0.329287D-04
41	-0.132518D-03	0.138840D-03	0.220156D-03	-0.166102D-02	-0.139544D-02
42	0.730318D-05	0.636106D-05	-0.888519D-05	-0.153816D-03	0.511760D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	36	37	38	39	40
36	0.869677D-03				
37	0.756770D-04	0.502045D-03			
38	0.198257D-04	-0.147942D-05	0.599294D-04		
39	-0.142626D-04	-0.120295D-03	-0.605942D-04	0.700192D-01	
40	-0.561082D-04	-0.796275D-04	0.546837D-04	-0.591139D-02	0.585098D-01
41	-0.150318D-03	-0.217174D-04	-0.115225D-03	0.782589D-02	-0.102352D-01
42	0.117906D-03	0.581286D-03	0.170840D-04	-0.516372D-03	-0.109062D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES	
	41	42
41	0.218445D+00	
42	-0.326025D-03	0.172045D-02

	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.194	1.000			
3	-0.102	-0.086	1.000		

4	0.071	0.129	-0.089	1.000	
5	0.062	0.169	-0.078	0.173	1.000
6	-0.064	-0.199	0.164	-0.145	-0.142
7	0.053	0.019	0.030	-0.024	0.010
8	0.019	0.039	0.001	-0.023	-0.058
9	0.018	-0.027	0.025	-0.020	-0.021
10	0.023	-0.030	-0.014	0.012	0.017
11	-0.030	0.010	0.019	0.028	0.061
12	-0.010	-0.006	0.035	0.007	-0.005
13	-0.006	-0.002	-0.027	0.013	-0.026
14	0.032	0.023	-0.037	0.018	-0.057
15	-0.035	0.024	-0.032	0.014	-0.034
16	0.033	0.044	0.003	-0.041	-0.024
17	0.057	-0.017	0.039	0.000	0.037
18	0.006	-0.027	-0.023	0.023	0.011
19	-0.006	0.002	-0.056	0.025	-0.021
20	-0.011	-0.018	-0.044	0.061	0.011
21	0.001	0.044	0.046	-0.039	0.031
22	-0.015	-0.011	-0.007	0.001	-0.023
23	-0.006	0.025	0.003	0.006	-0.001
24	0.034	-0.018	-0.043	-0.007	-0.014
25	-0.020	-0.019	-0.002	0.002	0.018
26	-0.025	-0.016	-0.018	0.050	-0.026
27	-0.029	0.002	-0.010	0.063	0.035
28	0.032	-0.018	0.005	-0.012	-0.003
29	0.028	-0.019	0.011	-0.013	0.006
30	0.001	-0.002	-0.034	0.022	0.009
31	-0.006	0.028	0.008	0.003	-0.042
32	-0.002	0.005	0.007	0.019	-0.034
33	0.018	0.043	0.004	0.003	0.021
34	-0.033	-0.055	0.006	-0.030	-0.045
35	-0.009	-0.004	-0.022	-0.005	0.028
36	0.037	0.005	0.019	0.009	0.014
37	0.035	-0.038	0.002	0.016	0.072
38	0.041	-0.024	0.023	-0.025	-0.042
39	0.025	0.007	0.008	0.015	0.009
40	0.031	-0.044	0.022	0.020	0.008
41	-0.015	0.004	-0.005	-0.027	0.014
42	0.017	-0.010	0.015	-0.020	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

6

7

8

9

10

6	1.000				
7	0.035	1.000			
8	-0.015	-0.178	1.000		
9	0.021	0.087	0.022	1.000	
10	0.007	-0.064	-0.073	0.111	1.000
11	-0.001	0.031	-0.109	0.057	-0.203
12	0.017	-0.059	0.095	-0.126	0.100
13	-0.015	0.009	0.041	0.023	-0.009
14	-0.027	-0.020	-0.048	0.027	-0.011
15	0.024	0.020	-0.025	-0.043	-0.044
16	0.007	0.029	-0.021	0.009	0.046
17	0.022	0.039	-0.036	0.027	0.037
18	-0.031	0.011	0.042	0.043	-0.031
19	-0.016	-0.029	-0.016	0.017	-0.013
20	0.023	-0.013	0.000	-0.031	-0.002
21	-0.002	0.019	-0.035	-0.003	0.039
22	0.013	-0.002	-0.006	-0.048	-0.022
23	0.045	-0.035	-0.042	0.018	-0.044
24	0.002	0.003	-0.075	-0.045	0.000
25	-0.007	0.023	0.014	-0.005	0.039
26	-0.034	-0.016	-0.020	-0.017	-0.028
27	-0.031	0.011	-0.029	0.010	-0.043
28	0.055	0.003	-0.018	-0.044	-0.037
29	-0.008	-0.007	0.011	0.003	-0.008
30	-0.005	0.028	-0.003	0.012	-0.020
31	-0.035	-0.005	0.035	0.030	-0.010
32	0.005	0.008	0.013	0.038	0.026
33	0.011	0.041	0.028	-0.012	0.007
34	0.028	-0.016	0.028	0.006	-0.014
35	0.029	-0.011	-0.044	0.008	-0.029
36	0.038	0.026	0.033	0.013	0.005
37	0.005	0.078	0.000	0.021	0.001
38	-0.014	-0.046	0.128	0.000	0.015
39	-0.049	-0.002	0.010	-0.005	0.007
40	0.030	0.020	-0.001	0.037	0.031
41	-0.001	0.044	0.014	-0.005	-0.030
42	0.002	0.097	0.297	0.001	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.063	1.000			

13	0.044	-0.014	1.000		
14	0.047	-0.028	0.324	1.000	
15	0.014	-0.026	0.025	0.344	1.000
16	-0.022	-0.006	-0.153	-0.104	-0.027
17	-0.018	-0.004	-0.033	-0.141	-0.186
18	-0.004	-0.024	-0.007	-0.006	0.008
19	0.033	-0.025	0.071	0.174	0.053
20	-0.023	0.043	-0.029	0.083	0.239
21	0.009	0.000	0.020	-0.021	-0.027
22	-0.026	0.075	-0.008	-0.028	0.000
23	0.070	-0.002	0.127	0.189	0.071
24	0.029	-0.009	0.040	0.166	0.254
25	-0.032	-0.012	-0.021	-0.059	-0.045
26	0.048	0.017	-0.004	0.019	0.026
27	0.070	-0.015	0.011	0.041	0.012
28	-0.023	-0.024	-0.095	-0.180	-0.095
29	-0.022	0.002	-0.012	-0.106	-0.264
30	-0.007	-0.011	0.009	0.007	0.001
31	-0.010	-0.004	-0.027	-0.012	-0.035
32	0.012	-0.012	0.001	-0.049	-0.056
33	-0.016	0.000	0.021	0.048	0.019
34	-0.023	0.009	0.019	-0.017	0.035
35	-0.015	0.026	0.070	0.018	-0.010
36	0.022	-0.016	0.020	0.025	0.019
37	0.046	0.005	0.028	0.016	0.065
38	0.028	-0.021	-0.032	-0.030	-0.032
39	0.004	-0.014	-0.035	0.018	-0.020
40	-0.009	-0.006	0.000	0.020	0.009
41	-0.009	0.008	-0.007	-0.007	-0.013
42	0.022	-0.008	0.047	-0.006	0.072

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.248	1.000			
18	-0.165	-0.139	1.000		
19	-0.122	-0.037	-0.002	1.000	
20	-0.038	-0.081	0.000	0.231	1.000
21	0.086	0.205	-0.137	-0.118	-0.134
22	-0.044	0.002	0.033	0.043	0.230
23	-0.079	-0.030	-0.030	0.191	0.055
24	-0.029	-0.105	0.034	0.110	0.221



25	0.097	0.162	-0.058	-0.064	-0.040
26	-0.006	0.001	0.008	0.076	0.182
27	-0.006	-0.033	-0.001	0.015	0.061
28	0.213	0.042	-0.007	-0.161	-0.095
29	0.074	0.208	-0.085	-0.082	-0.178
30	-0.087	-0.174	0.216	0.029	0.019
31	0.011	0.040	-0.030	-0.085	-0.178
32	0.024	0.042	-0.008	-0.048	-0.071
33	-0.016	-0.033	0.063	0.045	0.060
34	-0.026	-0.023	-0.002	-0.020	0.028
35	-0.024	0.016	-0.019	-0.014	-0.003
36	0.011	-0.008	0.017	0.043	-0.031
37	0.016	0.015	-0.027	-0.028	0.030
38	0.016	-0.023	0.042	-0.002	-0.016
39	-0.015	0.044	-0.020	0.006	0.003
40	-0.009	-0.024	0.026	-0.002	0.009
41	0.037	0.034	-0.010	0.004	-0.023
42	-0.010	-0.033	0.021	-0.014	0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.118	1.000			
23	0.016	-0.049	1.000		
24	-0.016	0.021	0.251	1.000	
25	0.255	-0.041	-0.134	-0.133	1.000
26	-0.064	0.289	0.052	0.165	-0.143
27	-0.015	0.023	0.101	0.226	-0.082
28	0.000	-0.018	-0.155	-0.089	0.051
29	0.070	-0.021	-0.038	-0.206	0.036
30	-0.162	-0.003	0.019	0.032	-0.188
31	0.180	-0.206	-0.021	-0.063	0.063
32	-0.005	-0.046	-0.140	-0.222	0.121
33	-0.026	0.028	0.028	0.067	-0.056
34	-0.020	0.009	-0.007	0.024	-0.003
35	0.010	0.057	0.008	-0.010	0.011
36	-0.014	-0.006	0.001	-0.024	0.028
37	0.029	-0.014	0.025	0.024	0.012
38	-0.043	0.006	-0.005	-0.040	0.040
39	-0.005	-0.015	-0.008	0.000	-0.009
40	-0.011	-0.005	-0.039	0.041	0.034
41	0.056	0.006	-0.022	0.007	0.010

42	-0.026	0.006	0.001	-0.002	0.003
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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.242	1.000			
28	-0.041	-0.020	1.000		
29	0.013	-0.032	0.284	1.000	
30	0.020	0.025	-0.084	-0.168	1.000
31	-0.196	-0.060	0.109	0.184	-0.137
32	-0.166	-0.211	0.149	0.206	-0.067
33	0.003	-0.005	-0.191	-0.248	0.242
34	0.004	0.014	-0.047	-0.050	0.034
35	-0.004	0.015	0.011	0.011	0.013
36	-0.018	-0.034	-0.051	0.015	0.003
37	0.003	0.032	0.006	0.028	-0.007
38	-0.016	0.013	0.011	0.037	-0.050
39	-0.007	-0.036	-0.026	-0.017	0.004
40	-0.035	0.011	-0.019	0.013	0.008
41	0.015	-0.001	0.022	0.039	-0.005
42	0.009	-0.017	0.018	0.016	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.184	1.000			
33	-0.214	-0.259	1.000		
34	-0.029	-0.035	0.009	1.000	
35	-0.021	-0.005	-0.031	-0.049	1.000
36	-0.027	0.032	0.012	0.021	0.036
37	0.018	0.007	0.015	-0.039	0.017
38	0.039	0.024	-0.032	0.026	0.019
39	0.019	0.000	0.019	0.017	-0.006
40	0.004	-0.005	-0.009	0.040	-0.001
41	-0.048	0.024	0.029	-0.023	-0.015
42	0.030	0.012	-0.013	-0.024	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
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36	1.000				
37	0.115	1.000			
38	0.087	-0.009	1.000		
39	-0.002	-0.020	-0.030	1.000	
40	-0.008	-0.015	0.029	-0.092	1.000
41	-0.011	-0.002	-0.032	0.063	-0.091
42	0.096	0.625	0.053	-0.047	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

41	1.000	
42	-0.017	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.013	9
200	1.006	34
300	1.003	30
400	1.004	36
500	1.004	42
600	1.004	23
700	1.002	9
800	1.003	8
900	1.003	8
1000	1.002	8

Reduced distress, main effects

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	1.000	1.000			
KES15	1.000	1.000	1.000		
CHOICE15	0.990	0.990	0.990	0.990	
BULLY15	0.990	0.990	0.990	0.989	0.990
PRESS15	0.990	0.990	0.990	0.989	0.989
DUTIES15	0.991	0.991	0.991	0.990	0.990
PRAFAC	1.000	1.000	1.000	0.990	0.990

	Covariance Coverage		
	PRESS15	DUTIES15	PRAFAC
PRESS15	0.990		
DUTIES15	0.990	0.991	
PRAFAC	0.990	0.991	1.000

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles		Median
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412		-0.412
1113.000	0.702	0.082	2.588	1.08%	0.588	0.588		
KES15	0.000	1.366	-0.556	20.75%	-0.556	-0.222		-0.222

	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15	0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186	
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15	0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426	
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15	0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085	
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15	0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328	
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318	
	58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-27.722 29.442

Posterior Predictive P-Value 0.425

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	Upper 2.5%	Significance
Within Level						
KESCAT16 ON						
PHY15	0.161	0.052	0.001	0.058	0.261	*

CHOICE15	0.028	0.038	0.239	-0.047	0.100	
BULLY15	0.112	0.061	0.036	-0.011	0.225	
DUTIES15	-0.082	0.045	0.035	-0.169	0.006	
PRESS15	-0.044	0.041	0.133	-0.126	0.036	
KES15	0.793	0.095	0.000	0.612	0.992	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.078	0.132	*
CHOICE15	-0.097	0.018	0.000	-0.131	-0.059	*
BULLY15	0.072	0.014	0.000	0.047	0.099	*
PRESS15	0.061	0.019	0.001	0.024	0.100	*
DUTIES15	-0.073	0.018	0.000	-0.109	-0.038	*
PHY15 WITH						
CHOICE15	-0.097	0.027	0.001	-0.150	-0.044	*
BULLY15	0.040	0.020	0.027	-0.001	0.078	
PRESS15	0.118	0.028	0.000	0.067	0.177	*
DUTIES15	-0.059	0.026	0.011	-0.108	-0.009	*
CHOICE15 WITH						
BULLY15	-0.139	0.025	0.000	-0.189	-0.091	*
PRESS15	-0.195	0.035	0.000	-0.267	-0.129	*
DUTIES15	0.151	0.033	0.000	0.085	0.214	*
BULLY15 WITH						
PRESS15	0.200	0.026	0.000	0.150	0.253	*
DUTIES15	-0.176	0.025	0.000	-0.225	-0.129	*
PRESS15 WITH						
DUTIES15	-0.287	0.036	0.000	-0.359	-0.216	*
Means						
PHY15	-0.001	0.025	0.485	-0.046	0.047	
KES15	0.000	0.017	0.494	-0.034	0.034	
CHOICE15	0.000	0.032	0.500	-0.062	0.063	
BULLY15	0.000	0.023	0.496	-0.047	0.045	
PRESS15	-0.003	0.032	0.464	-0.063	0.061	
DUTIES15	0.000	0.032	0.497	-0.062	0.065	
Variances						
PHY15	0.702	0.029	0.000	0.648	0.763	*
KES15	0.314	0.013	0.000	0.288	0.341	*
CHOICE15	1.192	0.051	0.000	1.098	1.298	*
BULLY15	0.604	0.026	0.000	0.553	0.657	*

PRESS15	1.161	0.051	0.000	1.064	1.261	*
DUTIES15	1.033	0.045	0.000	0.943	1.126	*

#### Between Level

KESCAT16 ON PRAFAC	-0.117	0.050	0.011	-0.222	-0.021	*
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Thresholds KESCAT16\$1	-0.452	0.054	0.000	-0.556	-0.339	*
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Residual Variances KESCAT16	0.018	0.030	0.000	0.001	0.118	*
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#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Posterior	One-Tailed	95% C.I.			
		Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%	Significance
Within Level							
KESCAT16	ON						
PHY15		0.119	0.038	0.001	0.044	0.192	*
CHOICE15		0.026	0.037	0.239	-0.047	0.096	
BULLY15		0.077	0.041	0.036	-0.008	0.153	
DUTIES15		-0.073	0.040	0.035	-0.152	0.005	
PRESS15		-0.042	0.039	0.133	-0.118	0.034	
KES15		0.392	0.041	0.000	0.313	0.473	*
KES15	WITH						
PHY15		0.227	0.027	0.000	0.172	0.276	*
CHOICE15		-0.158	0.029	0.000	-0.211	-0.099	*
BULLY15		0.167	0.030	0.000	0.108	0.224	*
PRESS15		0.101	0.031	0.001	0.040	0.162	*
DUTIES15		-0.128	0.031	0.000	-0.187	-0.068	*
PHY15	WITH						
CHOICE15		-0.106	0.029	0.001	-0.163	-0.048	*
BULLY15		0.061	0.030	0.027	-0.001	0.118	
PRESS15		0.132	0.030	0.000	0.075	0.194	*
DUTIES15		-0.069	0.030	0.011	-0.126	-0.010	*



CHOICE15 WITH						
BULLY15	-0.164	0.029	0.000	-0.218	-0.108	*
PRESS15	-0.166	0.029	0.000	-0.224	-0.109	*
DUTIES15	0.136	0.029	0.000	0.078	0.191	*
BULLY15 WITH						
PRESS15	0.240	0.028	0.000	0.183	0.294	*
DUTIES15	-0.223	0.029	0.000	-0.279	-0.165	*
PRESS15 WITH						
DUTIES15	-0.262	0.029	0.000	-0.318	-0.202	*
Means						
PHY15	-0.001	0.029	0.485	-0.055	0.056	
KES15	0.000	0.031	0.494	-0.061	0.062	
CHOICE15	0.000	0.029	0.500	-0.057	0.057	
BULLY15	0.001	0.030	0.496	-0.061	0.058	
PRESS15	-0.002	0.030	0.464	-0.059	0.056	
DUTIES15	0.000	0.031	0.497	-0.062	0.063	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
KESCAT16 ON						
PRAFAC	-0.697	0.234	0.011	-0.984	-0.127	*
Thresholds						
KESCAT16\$1	-2.249	1.117	0.000	-5.438	-1.079	*
Residual Variances						
KESCAT16	0.515	0.277	0.000	0.032	0.979	*
R-SQUARE						
Within Level						

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.219	0.035	0.000	0.152	0.289

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.485	0.277	0.000	0.021	0.968

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
KESCAT16      0                      0                      0                      0  
PHY15              0                      0                      0                      0  
KES15              0                      0                      0                      0

CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA

PRESS15	DUTIES15
<hr/> 5	<hr/> 6

BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 0	<hr/> 7	<hr/> 8	<hr/> 9	<hr/> 10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
KESCAT16	<hr/> 11	<hr/> 12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

PRESS15	DUTIES15
<hr/>	<hr/>

PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
KESCAT16	
_____	_____
	36

NU		
KESCAT16	PRAFAC	
_____	_____	_____
	0	0

	LAMBDA		
	KESCAT16	PRAFAC	
	_____	_____	_____
KESCAT16	0	0	
PRAFAC	0	0	

	THETA		
	KESCAT16	PRAFAC	
	_____	_____	_____
KESCAT16	0		
PRAFAC	0	0	

	ALPHA		
	KESCAT16	PRAFAC	
	_____	_____	_____
	0	0	

	BETA		
	KESCAT16	PRAFAC	
	_____	_____	_____
KESCAT16	0	34	
PRAFAC	0	0	

	PSI	
	KESCAT16	PRAFAC
KESCAT16	<u>35</u>	<u>          </u>
PRAFAC	0	0

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<u>0.000</u>

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
--------	---------	----------

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15

KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

# BETA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

# PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

# PSI

	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

# TAU



	KESCAT16	
	<hr/>	
	-0.352	
NU		
	KESCAT16	PRAFAC
	<hr/>	<hr/>
	0.000	0.000
LAMBDA		
	KESCAT16	PRAFAC
	<hr/>	<hr/>
KESCAT16	1.000	0.000
PRAFAC	0.000	1.000
THETA		
	KESCAT16	PRAFAC
	<hr/>	<hr/>
KESCAT16	0.000	
PRAFAC	0.000	0.000
ALPHA		
	KESCAT16	PRAFAC
	<hr/>	<hr/>
	0.000	0.000
BETA		
	KESCAT16	PRAFAC
	<hr/>	<hr/>
KESCAT16	0.000	0.000
PRAFAC	0.000	0.000
PSI		
	KESCAT16	PRAFAC
	<hr/>	<hr/>
KESCAT16	1.000	
PRAFAC	0.000	0.469

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.603642D-03				
2	0.899850D-04	0.296593D-03			
3	-0.591057D-04	-0.721338D-04	0.103105D-02		
4	0.409773D-04	0.770698D-04	-0.127031D-03	0.540699D-03	
5	0.945170D-04	0.469306D-04	-0.140565D-03	0.181351D-03	0.104656D-02
6	-0.366895D-04	-0.865774D-04	0.154964D-03	-0.164964D-03	-0.288483D-03
7	-0.104483D-04	0.136509D-04	0.557229D-04	0.183806D-04	0.427812D-04
8	-0.830143D-04	-0.579282D-05	-0.780820D-04	-0.630649D-04	0.876926D-05
9	-0.307338D-04	-0.200110D-04	-0.359075D-04	0.664874D-05	0.151930D-04
10	-0.186296D-04	-0.225216D-04	0.407522D-04	-0.370885D-05	0.306596D-04
11	-0.764701D-05	-0.513629D-05	0.130043D-04	-0.538085D-05	0.501944D-04
12	0.117472D-04	0.143923D-06	0.978588D-04	-0.242555D-04	0.201258D-04
13	-0.188693D-05	-0.214909D-05	0.166460D-05	-0.114366D-04	-0.103539D-04
14	0.113538D-04	0.319508D-06	0.368492D-05	-0.155659D-04	-0.278568D-04
15	-0.155407D-05	0.148945D-04	0.629825D-05	-0.166503D-04	-0.216209D-04
16	0.850917D-05	-0.327069D-05	0.128830D-05	0.276349D-04	0.181681D-05
17	-0.160712D-04	-0.101675D-04	-0.159528D-05	0.411915D-05	-0.922466D-05
18	0.190860D-05	-0.194782D-04	0.499083D-04	-0.332218D-04	-0.321350D-04
19	0.550795D-05	-0.279251D-06	0.301774D-05	-0.102907D-04	0.388176D-05
20	0.495898D-05	0.112368D-05	-0.661410D-05	0.683555D-05	0.558955D-05
21	0.522359D-05	0.117129D-04	0.153543D-04	-0.160166D-04	0.237419D-04
22	-0.209459D-04	-0.151734D-04	0.120195D-04	0.184402D-05	0.165140D-04
23	0.216425D-04	0.725365D-05	-0.374961D-04	0.169287D-04	-0.474637D-05
24	-0.674831D-06	0.161528D-04	0.923860D-05	0.154804D-04	0.384635D-05
25	0.315691D-04	-0.180917D-05	-0.106865D-05	0.117712D-04	0.236097D-04
26	0.709739D-06	-0.250965D-04	-0.173345D-04	0.860231D-05	-0.204631D-04
27	0.381944D-04	0.211190D-05	0.873891D-05	0.108227D-05	0.383745D-04
28	-0.188152D-04	-0.127038D-04	0.619676D-05	-0.178006D-04	0.287981D-04
29	0.605802D-06	-0.595428D-05	-0.257063D-04	-0.756121D-05	0.119797D-04
30	0.330134D-05	0.231166D-04	-0.375877D-05	-0.174213D-04	-0.544030D-04
31	-0.252104D-04	-0.659203D-07	-0.100655D-04	-0.819540D-05	-0.105302D-04
32	0.308076D-05	0.120146D-04	-0.173317D-05	-0.149680D-04	0.742347D-05
33	-0.881457D-05	0.222487D-04	-0.775412D-05	-0.786232D-05	-0.438844D-05
34	0.129699D-06	-0.281143D-04	0.339951D-04	-0.386502D-04	-0.450203D-04
35	0.288863D-04	0.134743D-04	-0.348152D-05	0.136402D-04	0.431525D-04
36	0.401664D-04	-0.171314D-04	0.142282D-04	-0.193660D-04	-0.260990D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10

6	0.100188D-02				
7	-0.635948D-04	0.274147D-02			
8	-0.688835D-05	-0.338760D-03	0.904127D-02		
9	0.456409D-04	0.149431D-03	0.530399D-03	0.147556D-02	
10	-0.656212D-04	-0.404659D-05	-0.503044D-04	0.165359D-03	0.372619D-02
11	0.476630D-04	-0.241931D-03	-0.129857D-03	0.151498D-03	-0.352553D-03
12	-0.337601D-05	0.114458D-04	0.530402D-03	-0.242833D-03	0.281159D-03
13	0.120102D-04	-0.329386D-04	-0.719407D-04	-0.223064D-04	0.678052D-05
14	0.192113D-04	-0.426608D-05	0.881143D-05	0.101582D-05	-0.970948D-05
15	0.104841D-04	0.182805D-04	0.433482D-04	0.299441D-05	0.134288D-04
16	0.883863D-05	-0.161861D-04	0.127844D-03	-0.852590D-05	0.741200D-04
17	0.315377D-05	0.159433D-04	-0.369298D-04	-0.181065D-04	0.218699D-04
18	0.363661D-04	-0.219954D-04	0.756275D-04	-0.326607D-04	0.850512D-04
19	0.104319D-04	0.426810D-04	0.418078D-04	0.103129D-04	0.495031D-04
20	0.109351D-05	0.269716D-04	-0.238239D-04	0.262746D-05	0.158668D-04
21	-0.200031D-04	-0.534068D-04	0.661875D-04	-0.416103D-04	-0.226809D-04
22	-0.204770D-04	-0.927317D-05	0.391381D-04	0.111236D-04	-0.509618D-04
23	-0.252784D-04	-0.346795D-04	0.830796D-04	0.122936D-04	0.949404D-05
24	-0.840508D-06	0.321060D-04	0.674790D-06	-0.114961D-04	-0.833706D-05
25	-0.690596D-05	-0.117459D-05	0.562550D-05	-0.554570D-04	0.474043D-05
26	0.873662D-05	0.114371D-04	-0.858115D-05	-0.125671D-04	0.190196D-05
27	0.428164D-04	0.654583D-05	-0.147183D-03	0.186688D-04	0.223603D-03
28	0.534328D-05	0.616559D-05	-0.163249D-04	-0.375767D-05	-0.348925D-04
29	-0.174733D-04	0.292211D-04	0.142250D-04	0.245400D-04	0.723965D-05
30	0.386126D-04	0.409202D-05	-0.318801D-04	-0.242125D-04	-0.983746D-04
31	0.219239D-04	-0.583605D-05	-0.166920D-04	0.455844D-04	0.228715D-04
32	0.690088D-05	-0.694281D-04	0.610596D-04	0.284335D-04	-0.333197D-05
33	0.360664D-04	0.112440D-03	-0.371679D-04	-0.423554D-04	0.666091D-04
34	0.595785D-05	-0.808818D-04	0.267003D-05	-0.199771D-03	-0.543166D-04
35	0.110377D-04	0.410259D-04	0.280489D-03	0.954422D-04	-0.452970D-04
36	0.180914D-04	-0.117052D-03	-0.809301D-03	0.123278D-03	-0.242812D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.168491D-02				
12	0.426798D-03	0.204465D-02			
13	-0.166354D-04	-0.333208D-04	0.854931D-03		
14	-0.553582D-05	0.329070D-06	0.123511D-03	0.193660D-03	
15	0.797378D-05	-0.154173D-04	-0.110167D-05	0.584729D-04	0.178349D-03
16	0.248640D-05	-0.661854D-06	-0.990576D-04	-0.537278D-04	-0.177566D-04
17	-0.172806D-04	-0.233974D-04	0.528376D-06	-0.338253D-04	-0.602292D-04

18	-0.200120D-04	0.691259D-04	0.751958D-05	0.439797D-05	0.249971D-05
19	-0.103584D-04	0.541135D-05	0.374215D-04	0.414552D-04	0.149638D-04
20	-0.135034D-04	-0.905044D-05	0.842113D-05	0.167601D-04	0.412058D-04
21	0.151667D-05	-0.379420D-04	0.104184D-04	-0.157043D-04	-0.832805D-05
22	0.161288D-04	0.250493D-05	-0.886056D-05	0.152960D-04	0.193329D-04
23	0.106668D-04	0.213942D-04	0.123178D-03	0.428757D-04	0.170259D-04
24	-0.591523D-05	0.179708D-06	0.190305D-04	0.330991D-04	0.475063D-04
25	0.217519D-04	0.838788D-04	0.407597D-05	0.158088D-05	0.831338D-05
26	0.224098D-04	0.302329D-04	-0.946479D-05	0.724602D-05	0.395605D-05
27	0.733672D-04	0.570100D-04	0.832239D-05	-0.438513D-04	-0.345785D-04
28	0.161719D-04	0.242989D-04	-0.527570D-04	-0.310976D-04	-0.101345D-04
29	-0.138531D-04	0.969732D-05	0.901694D-05	-0.118102D-04	-0.378481D-04
30	0.339226D-04	-0.482617D-04	-0.919418D-05	0.272223D-05	-0.264320D-05
31	-0.255225D-04	-0.545571D-04	0.367026D-04	-0.202186D-05	-0.786557D-05
32	-0.222994D-04	-0.207193D-04	0.350137D-04	0.498865D-05	0.170693D-04
33	0.612889D-04	0.628332D-04	-0.184189D-04	0.119618D-04	-0.117046D-04
34	-0.117040D-03	-0.160981D-04	0.612284D-04	0.372905D-05	0.426657D-04
35	0.373792D-04	0.779753D-04	-0.275360D-04	-0.634826D-06	-0.296270D-05
36	0.761828D-04	0.799668D-04	-0.102266D-04	0.103730D-05	-0.126000D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.745447D-03				
17	0.115667D-03	0.334077D-03			
18	-0.195618D-03	-0.178127D-03	0.260385D-02		
19	-0.842161D-04	-0.205677D-05	0.544322D-04	0.389266D-03	
20	-0.136865D-05	-0.369549D-04	0.123876D-04	0.566933D-04	0.183492D-03
21	0.655907D-04	0.736181D-04	-0.274306D-03	-0.670977D-04	-0.579388D-04
22	-0.147044D-04	-0.226706D-04	0.601174D-04	0.430586D-04	0.921889D-04
23	-0.138166D-03	-0.166496D-04	-0.145956D-04	0.117096D-03	0.348530D-04
24	-0.239086D-04	-0.625248D-04	0.189076D-04	0.223003D-04	0.788531D-04
25	0.133878D-03	0.604972D-04	-0.316421D-03	-0.496504D-04	-0.464423D-04
26	-0.791059D-06	-0.214898D-04	0.474439D-04	0.704277D-04	0.524027D-04
27	-0.161948D-04	-0.122198D-04	0.111304D-03	0.440783D-04	0.386497D-04
28	0.102222D-03	0.208038D-04	0.225009D-04	-0.113672D-03	-0.149985D-04
29	-0.778885D-05	0.446986D-04	-0.452411D-04	-0.100615D-04	-0.584143D-04
30	-0.723226D-04	-0.744839D-04	0.247875D-03	0.247571D-04	0.336320D-04
31	0.116282D-05	0.161263D-04	-0.505005D-04	-0.271187D-04	-0.745749D-04
32	-0.183377D-05	-0.214370D-04	-0.425618D-04	-0.568036D-04	-0.286224D-04
33	-0.345556D-04	-0.113975D-04	0.528358D-04	0.213010D-04	0.193448D-04
34	0.231766D-04	-0.351166D-04	-0.324389D-04	-0.257573D-04	0.412446D-05
35	-0.120232D-04	-0.118724D-04	0.110946D-03	0.310040D-04	0.351622D-05

36 0.269095D-04 -0.137801D-04 -0.128558D-04 0.283064D-06 0.404016D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.643431D-03				
22	-0.141710D-03	0.665211D-03			
23	-0.236789D-04	0.271757D-04	0.768819D-03		
24	-0.191268D-04	0.492242D-04	0.152494D-03	0.355170D-03	
25	0.249563D-03	-0.908369D-04	-0.137315D-03	-0.131472D-03	0.123569D-02
26	-0.123281D-03	0.220274D-03	0.837291D-04	0.113694D-03	-0.153223D-03
27	-0.833651D-04	0.542388D-04	0.233971D-03	0.122790D-03	-0.418637D-03
28	0.345926D-05	-0.927443D-05	-0.198823D-03	-0.672505D-04	0.365807D-04
29	0.196557D-04	-0.473525D-04	-0.463827D-04	-0.118196D-03	0.637318D-04
30	-0.209042D-03	0.586880D-04	0.677098D-04	0.508358D-04	-0.313986D-03
31	0.928235D-04	-0.191741D-03	-0.486486D-05	-0.503379D-04	0.905924D-04
32	0.355242D-04	-0.106115D-03	-0.821297D-04	-0.966608D-04	0.190956D-03
33	-0.632201D-04	0.915263D-04	0.257542D-04	0.282301D-04	-0.127693D-03
34	-0.309429D-04	0.437564D-04	-0.752563D-06	0.385550D-05	-0.225495D-04
35	0.191287D-04	-0.303661D-04	-0.466066D-05	-0.552627D-06	0.208246D-04
36	0.731992D-05	0.439850D-04	-0.128184D-04	0.459179D-04	0.263695D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.666913D-03				
27	0.435012D-03	0.256673D-02			
28	-0.312055D-04	-0.824775D-04	0.655080D-03		
29	-0.526859D-04	-0.330863D-04	0.120338D-03	0.329933D-03	
30	0.478349D-04	0.155117D-03	-0.101186D-03	-0.100891D-03	0.110764D-02
31	-0.196720D-03	-0.113053D-03	0.344362D-04	0.103375D-03	-0.155104D-03
32	-0.264369D-03	-0.646022D-03	0.112800D-03	0.866075D-04	-0.253907D-03
33	0.114041D-03	0.224307D-03	-0.134951D-03	-0.160239D-03	0.292145D-03
34	0.150186D-04	-0.137639D-04	-0.423209D-04	-0.111500D-05	0.387724D-04
35	-0.659776D-05	0.722927D-05	-0.228553D-04	-0.125721D-04	-0.162980D-04
36	0.686901D-04	0.858373D-04	0.531199D-04	-0.639276D-05	0.893114D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.626340D-03				

```

32  0.286287D-03  0.128265D-02
33 -0.358523D-03 -0.619079D-03  0.205964D-02
34 -0.250640D-04 -0.118132D-04  0.346400D-04  0.253908D-02
35  0.101913D-04  0.913928D-05 -0.221912D-04 -0.181824D-03  0.901483D-03
36 -0.525036D-04 -0.668148D-04  0.284714D-04 -0.229433D-03  0.482287D-04

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ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES  
36

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36  0.296792D-02

```

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.213	1.000			
3	-0.075	-0.130	1.000		
4	0.072	0.192	-0.170	1.000	
5	0.119	0.084	-0.135	0.241	1.000
6	-0.047	-0.159	0.152	-0.224	-0.282
7	-0.008	0.015	0.033	0.015	0.025
8	-0.036	-0.004	-0.026	-0.029	0.003
9	-0.033	-0.030	-0.029	0.007	0.012
10	-0.012	-0.021	0.021	-0.003	0.016
11	-0.008	-0.007	0.010	-0.006	0.038
12	0.011	0.000	0.067	-0.023	0.014
13	-0.003	-0.004	0.002	-0.017	-0.011
14	0.033	0.001	0.008	-0.048	-0.062
15	-0.005	0.065	0.015	-0.054	-0.050
16	0.013	-0.007	0.001	0.044	0.002
17	-0.036	-0.032	-0.003	0.010	-0.016
18	0.002	-0.022	0.030	-0.028	-0.019
19	0.011	-0.001	0.005	-0.022	0.006
20	0.015	0.005	-0.015	0.022	0.013
21	0.008	0.027	0.019	-0.027	0.029
22	-0.033	-0.034	0.015	0.003	0.020
23	0.032	0.015	-0.042	0.026	-0.005
24	-0.001	0.050	0.015	0.035	0.006
25	0.037	-0.003	-0.001	0.014	0.021
26	0.001	-0.056	-0.021	0.014	-0.024
27	0.031	0.002	0.005	0.001	0.023
28	-0.030	-0.029	0.008	-0.030	0.035

29	0.001	-0.019	-0.044	-0.018	0.020
30	0.004	0.040	-0.004	-0.023	-0.051
31	-0.041	0.000	-0.013	-0.014	-0.013
32	0.004	0.019	-0.002	-0.018	0.006
33	-0.008	0.028	-0.005	-0.007	-0.003
34	0.000	-0.032	0.021	-0.033	-0.028
35	0.039	0.026	-0.004	0.020	0.044
36	0.030	-0.018	0.008	-0.015	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.038	1.000			
8	-0.002	-0.068	1.000		
9	0.038	0.074	0.145	1.000	
10	-0.034	-0.001	-0.009	0.071	1.000
11	0.037	-0.113	-0.033	0.096	-0.141
12	-0.002	0.005	0.123	-0.140	0.102
13	0.013	-0.022	-0.026	-0.020	0.004
14	0.044	-0.006	0.007	0.002	-0.011
15	0.025	0.026	0.034	0.006	0.016
16	0.010	-0.011	0.049	-0.008	0.044
17	0.005	0.017	-0.021	-0.026	0.020
18	0.023	-0.008	0.016	-0.017	0.027
19	0.017	0.041	0.022	0.014	0.041
20	0.003	0.038	-0.018	0.005	0.019
21	-0.025	-0.040	0.027	-0.043	-0.015
22	-0.025	-0.007	0.016	0.011	-0.032
23	-0.029	-0.024	0.032	0.012	0.006
24	-0.001	0.033	0.000	-0.016	-0.007
25	-0.006	-0.001	0.002	-0.041	0.002
26	0.011	0.008	-0.003	-0.013	0.001
27	0.027	0.002	-0.031	0.010	0.072
28	0.007	0.005	-0.007	-0.004	-0.022
29	-0.030	0.031	0.008	0.035	0.007
30	0.037	0.002	-0.010	-0.019	-0.048
31	0.028	-0.004	-0.007	0.047	0.015
32	0.006	-0.037	0.018	0.021	-0.002
33	0.025	0.047	-0.009	-0.024	0.024
34	0.004	-0.031	0.001	-0.103	-0.018
35	0.012	0.026	0.098	0.083	-0.025
36	0.010	-0.041	-0.156	0.059	-0.073



ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	1.000				
12	0.230	1.000			
13	-0.014	-0.025	1.000		
14	-0.010	0.001	0.304	1.000	
15	0.015	-0.026	-0.003	0.315	1.000
16	0.002	-0.001	-0.124	-0.141	-0.049
17	-0.023	-0.028	0.001	-0.133	-0.247
18	-0.010	0.030	0.005	0.006	0.004
19	-0.013	0.006	0.065	0.151	0.057
20	-0.024	-0.015	0.021	0.089	0.228
21	0.001	-0.033	0.014	-0.044	-0.025
22	0.015	0.002	-0.012	0.043	0.056
23	0.009	0.017	0.152	0.111	0.046
24	-0.008	0.000	0.035	0.126	0.189
25	0.015	0.053	0.004	0.003	0.018
26	0.021	0.026	-0.013	0.020	0.011
27	0.035	0.025	0.006	-0.062	-0.051
28	0.015	0.021	-0.070	-0.087	-0.030
29	-0.019	0.012	0.017	-0.047	-0.156
30	0.025	-0.032	-0.009	0.006	-0.006
31	-0.025	-0.048	0.050	-0.006	-0.024
32	-0.015	-0.013	0.033	0.010	0.036
33	0.033	0.031	-0.014	0.019	-0.019
34	-0.057	-0.007	0.042	0.005	0.063
35	0.030	0.057	-0.031	-0.002	-0.007
36	0.034	0.032	-0.006	0.001	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	1.000				
17	0.232	1.000			
18	-0.140	-0.191	1.000		
19	-0.156	-0.006	0.054	1.000	
20	-0.004	-0.149	0.018	0.212	1.000
21	0.095	0.159	-0.212	-0.134	-0.169
22	-0.021	-0.048	0.046	0.085	0.264
23	-0.183	-0.033	-0.010	0.214	0.093

24	-0.046	-0.182	0.020	0.060	0.309
25	0.139	0.094	-0.176	-0.072	-0.098
26	-0.001	-0.046	0.036	0.138	0.150
27	-0.012	-0.013	0.043	0.044	0.056
28	0.146	0.044	0.017	-0.225	-0.043
29	-0.016	0.135	-0.049	-0.028	-0.237
30	-0.080	-0.122	0.146	0.038	0.075
31	0.002	0.035	-0.040	-0.055	-0.220
32	-0.002	-0.033	-0.023	-0.080	-0.059
33	-0.028	-0.014	0.023	0.024	0.031
34	0.017	-0.038	-0.013	-0.026	0.006
35	-0.015	-0.022	0.072	0.052	0.009
36	0.018	-0.014	-0.005	0.000	0.055

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.217	1.000			
23	-0.034	0.038	1.000		
24	-0.040	0.101	0.292	1.000	
25	0.280	-0.100	-0.141	-0.198	1.000
26	-0.188	0.331	0.117	0.234	-0.169
27	-0.065	0.042	0.167	0.129	-0.235
28	0.005	-0.014	-0.280	-0.139	0.041
29	0.043	-0.101	-0.092	-0.345	0.100
30	-0.248	0.068	0.073	0.081	-0.268
31	0.146	-0.297	-0.007	-0.107	0.103
32	0.039	-0.115	-0.083	-0.143	0.152
33	-0.055	0.078	0.020	0.033	-0.080
34	-0.024	0.034	-0.001	0.004	-0.013
35	0.025	-0.039	-0.006	-0.001	0.020
36	0.005	0.031	-0.008	0.045	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.047	-0.064	1.000		
29	-0.112	-0.036	0.259	1.000	
30	0.056	0.092	-0.119	-0.167	1.000

31	-0.304	-0.089	0.054	0.227	-0.186
32	-0.286	-0.356	0.123	0.133	-0.213
33	0.097	0.098	-0.116	-0.194	0.193
34	0.012	-0.005	-0.033	-0.001	0.023
35	-0.009	0.005	-0.030	-0.023	-0.016
36	0.049	0.031	0.038	-0.006	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	1.000				
32	0.319	1.000			
33	-0.316	-0.381	1.000		
34	-0.020	-0.007	0.015	1.000	
35	0.014	0.008	-0.016	-0.120	1.000
36	-0.039	-0.034	0.012	-0.084	0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES	
	36
36	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.018	29
200	1.010	13
300	1.005	35
400	1.005	12
500	1.002	35
600	1.007	35
700	1.003	35

800	1.011	35
900	1.003	35
1000	1.003	28

Reduced distress, curvilinear effects

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PRAFACSQ	PHY15	KES15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PRAFACSQ	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318

	58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PRAFACSQ		1.379	1.240	0.002	1.72%	0.151	0.381	0.681
	58.000	2.369	0.557	5.467	1.72%	1.168	2.366	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.392 29.508

Posterior Predictive P-Value 0.516

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.161	0.051	0.001	0.060	0.258	*
CHOICE15	0.031	0.039	0.217	-0.047	0.108	
BULLY15	0.102	0.059	0.038	-0.007	0.221	
DUTIES15	-0.080	0.043	0.027	-0.168	0.003	
PRESS15	-0.046	0.040	0.126	-0.123	0.033	
KES15	0.803	0.095	0.000	0.621	0.995	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances



PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
PRAFAC	-0.132	0.051	0.004	-0.238	-0.034	*
PRAFACSQ	-0.102	0.041	0.006	-0.186	-0.018	*

PRAFAC WITH						
PRAFACSQ	-0.119	0.241	0.311	-0.595	0.350	

#### Means

PRAFAC	-0.188	0.152	0.107	-0.483	0.114	
PRAFACSQ	1.397	0.211	0.000	0.957	1.806	*

#### Thresholds

KESCAT16\$1	-0.557	0.068	0.000	-0.699	-0.428	*
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#### Variances

PRAFAC	1.348	0.257	0.000	0.966	2.005	*
PRAFACSQ	2.380	0.447	0.000	1.677	3.409	*

#### Residual Variances

KESCAT16	0.019	0.027	0.000	0.001	0.100	*
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#### New/Additional Parameters

MIN	-0.643	23.085	0.010	-2.620	-0.150	*
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#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						

PHY15	0.119	0.037	0.001	0.045	0.189	*
CHOICE15	0.030	0.037	0.217	-0.045	0.104	
BULLY15	0.070	0.040	0.038	-0.005	0.152	
DUTIES15	-0.072	0.038	0.027	-0.147	0.002	
PRESS15	-0.044	0.038	0.126	-0.116	0.032	
KES15	0.397	0.040	0.000	0.313	0.474	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	

BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
KESCAT16 ON						
PRAFAC	-0.588	0.183	0.004	-0.889	-0.193	*
PRAFACSQ	-0.596	0.187	0.006	-0.902	-0.164	*
PRAFAC WITH						
PRAFACSQ	-0.069	0.127	0.311	-0.313	0.194	
Means						
PRAFAC	-0.163	0.130	0.107	-0.405	0.095	
PRAFACSQ	0.902	0.158	0.000	0.598	1.208	*
Thresholds						
KESCAT16\$1	-2.072	0.648	0.000	-3.758	-1.260	*
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.290	0.200	0.000	0.017	0.744	*
R-SQUARE						
Within Level						
Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		
KESCAT16	0.221	0.034	0.000	0.157	0.287	
Between Level						
Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		
KESCAT16	0.710	0.200	0.000	0.256	0.983	

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
-----  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	-----	-----	-----	-----	-----
	0	0	0	0	0

NU	PRESS15	DUTIES15
	-----	-----
	0	0

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	-----	-----	-----	-----	-----
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
	-----	-----
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0

BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>PRESS15</u>	<u></u>
0	
<u>DUTIES15</u>	<u>0</u>

ALPHA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>PRESS15</u>	<u></u>
5	
<u>DUTIES15</u>	<u>6</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0

PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
KESCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

KESCAT16
42

NU			
	KESCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/> 0	<hr/> 0
LAMBDA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<hr/> 0	<hr/> 0	<hr/> 0
PRAFAC	0	0	0
PRAFACSQ	0	0	0
THETA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<hr/> 0	<hr/>	<hr/>
PRAFAC	0	0	
PRAFACSQ	0	0	0
ALPHA			
	KESCAT16	PRAFAC	PRAFACSQ
	<hr/> 0	<hr/> 34	<hr/> 35
BETA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<hr/> 0	<hr/> 36	<hr/> 37
PRAFAC	0	0	0
PRAFACSQ	0	0	0
PSI			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<hr/> 38	<hr/>	<hr/>
PRAFAC	0	39	
PRAFACSQ	0	40	41

PARAMETER SPECIFICATION FOR THE ADDITIONAL PARAMETERS

NEW/ADDITIONAL PARAMETERS  
MIN

43

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
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KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15

KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU

	KESCAT16		
	<u>-0.352</u>		
NU			
	KESCAT16	PRAFAC	PRAFACSQ
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
LAMBDA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	1.000	0.000
PRAFACSQ	0.000	0.000	1.000
THETA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000
ALPHA			
	KESCAT16	PRAFAC	PRAFACSQ
	<u>0.000</u>	<u>-0.033</u>	<u>0.940</u>
BETA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000
PSI			
	KESCAT16	PRAFAC	PRAFACSQ
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

KESCAT16	1.000		
PRAFAC	0.000	0.469	
PRAFACSQ	0.000	0.000	0.654

STARTING VALUES FOR THE ADDITIONAL PARAMETERS

NEW/ADDITIONAL PARAMETERS

MIN

0.500

PRIORS FOR ALL PARAMETERS

PRIOR MEAN

PRIOR VARIANCE

PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity

Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606069D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925403D-04	-0.649467D-04	0.111147D-02		
4	0.452016D-04	0.736602D-04	-0.136547D-03	0.544179D-03	
5	0.101048D-03	0.445892D-04	-0.215373D-03	0.177224D-03	0.108753D-02
6	-0.408600D-04	-0.473529D-04	0.976563D-04	-0.161993D-03	-0.253045D-03
7	-0.273297D-04	-0.151099D-04	-0.675900D-04	-0.118439D-04	0.291519D-04
8	0.652205D-04	-0.145242D-04	0.831992D-04	-0.197003D-04	-0.619981D-04
9	0.145694D-04	0.111113D-04	0.399582D-04	0.158692D-04	0.642973D-04
10	-0.736303D-05	0.319810D-04	0.314773D-04	0.111839D-04	0.413392D-04
11	0.352222D-04	0.115564D-04	-0.182794D-04	-0.128168D-04	0.119608D-04
12	0.353477D-06	0.145086D-04	-0.176458D-04	0.135613D-04	-0.930975D-04
13	0.611674D-04	0.212389D-04	-0.183340D-04	0.535825D-06	0.322988D-04
14	-0.108350D-05	0.118213D-04	-0.293529D-05	-0.151616D-04	-0.196775D-04
15	0.586004D-05	0.141469D-05	0.195638D-04	-0.166343D-04	-0.973881D-05
16	-0.436266D-04	-0.212690D-04	0.227537D-05	0.727469D-05	-0.173843D-04
17	0.588439D-06	0.109626D-04	-0.790011D-05	0.169812D-06	0.138792D-04
18	-0.383215D-04	-0.124767D-05	-0.1341716D-04	0.775125D-05	0.209440D-04
19	0.997801D-05	0.174767D-04	0.153506D-04	-0.703240D-05	-0.129206D-04
20	0.517473D-05	0.215723D-05	0.665184D-06	0.934579D-05	0.687300D-05
21	0.829795D-05	-0.828140D-05	0.110280D-04	0.130390D-05	-0.288691D-04

22	0.169984D-04	0.430439D-05	-0.559299D-05	0.192113D-04	0.568025D-04
23	0.254840D-04	0.125192D-04	0.830951D-05	-0.153165D-04	0.219585D-04
24	0.452008D-05	0.211680D-05	0.163332D-04	0.963052D-05	0.159474D-04
25	-0.285335D-05	-0.388003D-05	-0.173839D-04	0.186647D-04	-0.515778D-05
26	-0.327055D-05	-0.116906D-04	0.200027D-05	0.236699D-04	0.304961D-04
27	0.343405D-04	-0.447851D-05	-0.247241D-04	0.183719D-04	0.476718D-04
28	-0.949475D-05	-0.209425D-04	-0.881299D-05	-0.345137D-04	-0.194154D-04
29	-0.212992D-05	0.178703D-05	-0.109494D-04	-0.407937D-05	0.198081D-04
30	-0.608737D-05	-0.126544D-04	-0.169003D-04	0.102245D-04	0.467582D-04
31	-0.881385D-05	0.161787D-05	0.306030D-04	-0.184734D-04	-0.473581D-05
32	-0.428796D-04	0.405135D-05	0.729187D-04	-0.344735D-04	-0.114599D-04
33	-0.109119D-05	0.623437D-05	-0.420158D-04	0.265206D-04	-0.688057D-05
34	-0.201220D-04	-0.334604D-04	0.243957D-04	0.177522D-03	0.437102D-04
35	0.711450D-04	0.171883D-04	-0.192169D-03	-0.103537D-03	0.239088D-04
36	-0.244725D-04	-0.118109D-04	-0.695409D-05	0.194430D-04	0.365180D-04
37	0.125864D-04	0.225382D-04	-0.696985D-05	-0.480394D-05	0.105853D-04
38	0.669076D-05	0.543898D-05	0.546176D-05	0.407664D-04	0.342415D-05
39	0.379783D-04	0.104002D-03	-0.179919D-03	0.119617D-04	0.100496D-05
40	0.304632D-04	0.386017D-05	-0.195559D-03	-0.921123D-06	0.291981D-04
41	-0.268371D-03	-0.145667D-03	-0.161081D-03	-0.110472D-03	0.741815D-03
42	0.563132D-04	0.328600D-04	0.169994D-04	0.308336D-04	0.800645D-04
43	0.158942D-01	0.993566D-02	-0.253594D-02	-0.282695D-02	0.221421D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.881811D-03				
7	-0.547627D-05	0.259711D-02			
8	-0.892956D-05	-0.566277D-03	0.895226D-02		
9	0.691654D-05	0.814270D-04	0.461983D-03	0.149826D-02	
10	-0.505466D-05	0.141775D-05	-0.233715D-03	0.147746D-03	0.351865D-02
11	-0.173442D-04	-0.276012D-03	-0.116134D-03	0.415091D-04	-0.290443D-03
12	0.180603D-04	-0.799307D-05	0.418092D-03	-0.186593D-03	0.329978D-03
13	-0.161096D-04	0.745511D-04	0.959625D-05	0.651763D-05	-0.227844D-04
14	0.167006D-04	0.259959D-04	-0.394908D-04	0.317758D-05	0.222988D-04
15	0.692744D-05	-0.689304D-05	-0.154392D-04	0.133227D-04	0.361786D-04
16	-0.201680D-04	0.363207D-05	0.112261D-04	0.126420D-04	0.556620D-06
17	-0.197610D-04	0.269839D-05	-0.239176D-04	-0.840953D-05	0.487650D-05
18	-0.428539D-04	0.547701D-04	-0.662488D-04	-0.222629D-04	0.389224D-04
19	0.116505D-04	-0.151475D-04	-0.709900D-05	-0.425310D-06	-0.283490D-04
20	0.329695D-05	-0.982185D-05	0.610696D-04	0.604762D-05	-0.120410D-04
21	0.473448D-05	0.418233D-05	-0.142705D-03	-0.277422D-04	0.104770D-04
22	-0.325295D-04	0.170328D-04	0.592500D-04	-0.395269D-05	-0.288801D-04

23	-0.408335D-05	-0.123538D-04	0.632676D-05	-0.179430D-04	-0.304842D-04
24	-0.331907D-05	0.112333D-04	-0.270266D-04	0.179121D-04	0.145449D-04
25	-0.215206D-04	0.288408D-04	-0.139350D-03	-0.144861D-04	-0.536079D-04
26	-0.220728D-05	0.297358D-04	0.926064D-04	0.426198D-04	0.327975D-06
27	-0.132799D-04	0.116348D-03	0.512918D-04	0.582606D-04	0.744422D-04
28	0.255275D-04	-0.145589D-04	-0.787947D-04	0.320386D-04	0.516944D-04
29	-0.446041D-05	0.199643D-04	-0.501617D-04	0.404423D-05	-0.172363D-04
30	-0.524755D-05	0.289316D-05	0.117868D-03	-0.357455D-06	0.849786D-04
31	0.259528D-05	-0.142079D-04	-0.115800D-03	-0.218783D-04	0.897654D-05
32	-0.582012D-05	0.238407D-04	-0.141204D-03	-0.368022D-04	0.514000D-05
33	0.387351D-04	0.512777D-04	0.119138D-03	0.182041D-04	0.249655D-04
34	-0.121657D-03	0.715890D-04	-0.393937D-03	-0.359125D-03	-0.608335D-04
35	-0.123629D-03	0.219772D-03	-0.470168D-04	-0.102417D-03	-0.474574D-04
36	-0.309295D-04	0.649939D-04	0.545989D-04	-0.710855D-04	-0.921621D-04
37	-0.106092D-04	-0.734076D-04	-0.217956D-03	-0.183766D-03	0.827326D-04
38	0.247016D-04	0.495661D-04	0.133250D-03	0.512590D-04	0.380526D-04
39	-0.711664D-04	-0.652219D-04	0.289423D-03	0.776086D-04	-0.220762D-03
40	-0.242136D-03	0.219476D-03	0.714344D-03	-0.494808D-04	-0.340545D-03
41	-0.359507D-03	-0.123070D-03	-0.115224D-03	-0.241144D-03	-0.259243D-03
42	-0.127185D-04	-0.294366D-03	-0.113856D-02	-0.135411D-03	-0.108940D-03
43	-0.356525D-01	-0.469754D-01	0.842784D-01	-0.521760D-02	-0.227717D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160814D-02				
12	0.309063D-03	0.184699D-02			
13	-0.438460D-05	-0.181178D-04	0.887204D-03		
14	0.106958D-04	0.282416D-04	0.144168D-03	0.209518D-03	
15	-0.405845D-05	0.301900D-05	0.245872D-04	0.632900D-04	0.178541D-03
16	0.833025D-05	-0.388715D-04	-0.152810D-03	-0.702332D-04	-0.312448D-04
17	0.398052D-04	-0.180896D-04	-0.515534D-04	-0.385943D-04	-0.503950D-04
18	-0.448481D-04	0.962768D-04	0.342630D-04	0.115795D-04	-0.743134D-05
19	-0.199403D-04	0.938445D-05	0.672088D-04	0.296086D-04	0.604212D-05
20	-0.304971D-04	-0.668374D-05	0.115501D-04	0.103519D-04	0.370384D-04
21	0.301944D-04	0.103319D-04	-0.192693D-04	-0.531391D-05	-0.922817D-05
22	0.186610D-06	0.779087D-05	0.109825D-04	-0.118870D-04	0.892011D-05
23	0.119164D-04	0.416134D-04	0.167285D-03	0.404953D-04	0.600917D-05
24	-0.239400D-04	0.125339D-04	0.306004D-04	0.384751D-04	0.344834D-04
25	0.329231D-04	-0.334657D-04	-0.228347D-04	-0.347908D-04	-0.408033D-05
26	-0.213905D-05	0.184050D-04	0.649637D-05	0.160400D-05	0.119012D-04
27	0.444729D-04	0.831464D-04	0.386250D-04	-0.102826D-04	-0.152221D-04
28	-0.103619D-04	-0.191425D-04	-0.849164D-04	-0.497636D-04	-0.142762D-04

29	0.350939D-04	0.218991D-04	-0.126011D-04	-0.204242D-04	-0.363761D-04
30	0.792322D-06	-0.104751D-05	0.759268D-04	0.268102D-04	0.103322D-04
31	0.192231D-05	0.128960D-05	-0.109871D-04	-0.694713D-05	-0.112139D-04
32	-0.857438D-05	0.208090D-04	0.795404D-05	-0.177063D-04	-0.663095D-06
33	0.219099D-05	0.587042D-06	0.344600D-04	0.562811D-05	0.131856D-05
34	-0.101468D-04	-0.526057D-05	0.128757D-06	0.130054D-04	0.539957D-04
35	-0.650016D-04	0.331414D-03	-0.107134D-03	-0.111041D-03	-0.131637D-03
36	-0.598813D-04	0.443397D-05	-0.374984D-04	-0.204878D-04	0.435721D-05
37	0.738143D-04	0.639100D-04	-0.746698D-04	-0.203760D-04	0.827701D-05
38	0.636064D-04	0.594471D-04	0.567363D-04	0.297647D-04	0.101516D-04
39	0.721709D-04	-0.251257D-04	0.117447D-03	0.184507D-03	0.163420D-03
40	-0.369044D-03	-0.224595D-03	0.278407D-03	0.108785D-03	-0.489982D-05
41	-0.426667D-03	0.109114D-03	-0.252568D-03	-0.110338D-03	0.550372D-04
42	0.414029D-04	0.104520D-03	-0.328487D-04	-0.338372D-04	-0.156176D-04
43	0.315429D-01	0.112067D-02	0.303610D-03	0.102241D-01	0.252866D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.769016D-03				
17	0.156207D-03	0.354720D-03			
18	-0.227012D-03	-0.189492D-03	0.243856D-02		
19	-0.865660D-04	-0.203766D-04	0.315804D-04	0.382766D-03	
20	-0.222572D-04	-0.469570D-04	-0.743455D-05	0.626871D-04	0.180146D-03
21	0.291528D-04	0.785591D-04	-0.291574D-03	-0.493652D-04	-0.695878D-04
22	-0.111645D-04	-0.191158D-04	0.505655D-04	0.403960D-04	0.785318D-04
23	-0.105870D-03	-0.310492D-04	0.595192D-04	0.140411D-03	0.267869D-04
24	-0.243656D-04	-0.662477D-04	0.113748D-04	0.237662D-04	0.630438D-04
25	0.126704D-03	0.658587D-04	-0.445705D-03	-0.673502D-06	-0.137370D-04
26	-0.289881D-05	-0.195014D-04	0.622148D-04	0.585900D-04	0.497112D-04
27	-0.681585D-05	-0.268233D-04	0.178524D-03	0.227351D-04	0.208899D-04
28	0.981634D-04	0.245293D-04	-0.701009D-04	-0.123485D-03	-0.325806D-04
29	0.251541D-04	0.505788D-04	0.577364D-05	-0.167958D-04	-0.546281D-04
30	-0.612796D-04	-0.710996D-04	0.278619D-03	0.387074D-04	0.125572D-04
31	0.718654D-05	0.232372D-04	-0.158045D-05	-0.352299D-04	-0.495729D-04
32	0.706974D-05	0.328403D-05	-0.325227D-04	-0.122240D-04	-0.577707D-05
33	-0.293294D-05	-0.142171D-04	-0.379616D-04	-0.591372D-07	0.177210D-04
34	0.107814D-03	-0.140331D-03	0.306002D-03	0.967462D-04	0.255529D-05
35	0.851150D-04	0.169492D-03	0.477318D-04	0.159284D-04	-0.116436D-03
36	0.534592D-04	0.621172D-04	-0.865688D-04	-0.138426D-05	0.965404D-05
37	-0.114260D-04	-0.664626D-05	0.202200D-05	-0.190801D-04	-0.358777D-05
38	-0.209158D-04	-0.812055D-05	0.766970D-04	0.108711D-05	0.331463D-05
39	-0.168424D-03	-0.243308D-03	0.147288D-03	-0.780160D-04	-0.133393D-03



40	-0.807029D-04	-0.812896D-05	-0.160491D-03	0.940761D-04	0.477274D-04
41	0.157159D-03	-0.185853D-04	-0.935243D-03	-0.303311D-03	-0.137481D-03
42	-0.492619D-04	-0.718461D-05	-0.648364D-04	0.247782D-04	0.156228D-05
43	0.891353D-02	0.963491D-02	-0.634568D-01	0.100952D-01	-0.843894D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679791D-03				
22	-0.137505D-03	0.652660D-03			
23	-0.299776D-04	0.352291D-04	0.732792D-03		
24	-0.239266D-04	0.149461D-04	0.119156D-03	0.338061D-03	
25	0.221866D-03	-0.480972D-04	-0.103079D-03	-0.980232D-04	0.129234D-02
26	-0.139739D-03	0.196822D-03	0.696386D-04	0.830265D-04	-0.137398D-03
27	-0.645590D-04	0.875603D-04	0.222561D-03	0.134551D-03	-0.394986D-03
28	0.286508D-04	-0.259977D-04	-0.206210D-03	-0.374909D-04	0.515165D-04
29	0.956591D-05	-0.238952D-04	-0.251796D-04	-0.784307D-04	0.282681D-04
30	-0.168720D-03	0.559311D-04	0.104468D-03	0.317103D-04	-0.300935D-03
31	0.801613D-04	-0.186266D-03	-0.155541D-04	-0.182815D-04	0.402104D-04
32	0.216885D-04	-0.449599D-04	-0.836030D-04	-0.752769D-04	0.166227D-03
33	-0.190080D-04	0.252090D-04	0.296324D-04	0.414216D-04	-0.419334D-04
34	-0.220885D-03	0.879558D-04	-0.616986D-04	0.613595D-04	-0.160852D-03
35	0.726461D-04	0.141928D-03	0.440886D-04	-0.218313D-04	-0.235778D-03
36	-0.139475D-04	0.268521D-04	-0.914595D-04	0.444965D-05	-0.558480D-05
37	-0.277335D-04	-0.144748D-04	-0.555155D-04	-0.667879D-05	-0.225169D-04
38	0.126637D-04	0.973406D-05	0.202760D-04	0.122054D-04	0.354172D-05
39	0.195563D-03	-0.339089D-04	0.327593D-04	0.335036D-04	0.229925D-03
40	0.435897D-04	-0.273973D-03	-0.126757D-03	-0.108702D-03	0.323066D-03
41	0.543816D-04	0.169057D-04	-0.100136D-03	0.212473D-03	-0.223107D-03
42	0.678429D-05	-0.423372D-04	0.957579D-06	0.422890D-05	0.261690D-04
43	0.170287D-01	0.963447D-02	0.606873D-02	0.210379D-01	0.587736D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650058D-03				
27	0.437865D-03	0.241818D-02			
28	-0.322529D-04	-0.687110D-04	0.686011D-03		
29	-0.368431D-04	-0.517487D-04	0.112370D-03	0.287862D-03	
30	0.842508D-04	0.150279D-03	-0.120944D-03	-0.785299D-04	0.112434D-02
31	-0.185721D-03	-0.123262D-03	0.743574D-04	0.729797D-04	-0.167898D-03
32	-0.234899D-03	-0.575813D-03	0.152286D-03	0.920662D-04	-0.231380D-03

33	0.832355D-04	0.153448D-03	-0.160468D-03	-0.131426D-03	0.271629D-03
34	0.673208D-04	-0.670576D-04	0.253560D-04	0.444467D-06	0.577610D-04
35	0.140268D-03	-0.970137D-04	-0.620743D-04	0.368088D-04	0.990886D-04
36	0.495342D-04	0.600329D-05	0.385570D-04	-0.436591D-05	-0.686404D-04
37	0.157002D-05	-0.234441D-04	0.298399D-04	0.300692D-05	-0.381689D-04
38	-0.210701D-04	-0.139717D-04	-0.264818D-04	-0.601512D-05	0.453890D-04
39	0.781943D-04	-0.292351D-03	0.263874D-05	-0.112284D-03	-0.140140D-04
40	-0.676336D-04	-0.209171D-03	0.189398D-03	0.639469D-04	-0.247936D-03
41	0.469645D-03	0.755315D-03	0.185481D-03	0.187722D-03	-0.316191D-03
42	-0.395881D-04	-0.295964D-04	0.964902D-06	0.352980D-05	-0.172744D-04
43	-0.232780D-01	-0.324004D-01	-0.481723D-02	0.456028D-02	-0.292732D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597729D-03				
32	0.241922D-03	0.115788D-02			
33	-0.349920D-03	-0.537298D-03	0.195424D-02		
34	0.623475D-04	-0.195941D-03	0.582793D-04	0.231672D-01	
35	-0.796920D-04	-0.646826D-04	0.540747D-04	-0.315707D-02	0.446903D-01
36	-0.202233D-04	-0.130833D-05	-0.108797D-03	-0.129327D-04	0.446550D-04
37	-0.498101D-05	0.285147D-04	0.298244D-04	0.878372D-05	0.218059D-03
38	-0.462827D-06	-0.113448D-04	0.332437D-04	-0.345522D-04	0.525404D-04
39	0.412223D-04	-0.444040D-04	0.268717D-03	-0.201006D-03	-0.758775D-03
40	-0.692459D-04	0.263943D-03	0.123790D-03	0.159806D-02	-0.202303D-03
41	0.532094D-03	-0.195481D-03	-0.524885D-03	-0.213367D-02	0.133078D-02
42	0.708742D-05	0.671802D-04	0.102299D-04	0.111512D-03	-0.844166D-04
43	-0.145781D-01	-0.228040D-01	0.666282D-02	-0.271262D-01	0.113707D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.258271D-02				
37	0.389545D-03	0.168300D-02			
38	-0.274512D-03	-0.192755D-03	0.715394D-03		
39	0.237366D-03	0.274980D-04	-0.997583D-04	0.660430D-01	
40	0.432998D-03	0.161306D-03	-0.170522D-03	-0.897464D-02	0.580166D-01
41	-0.254195D-05	0.676289D-03	-0.395870D-03	0.645498D-02	-0.985188D-02
42	0.141125D-03	0.169368D-02	-0.285727D-03	0.521515D-03	0.219736D-04
43	0.369492D-01	0.400301D-01	-0.784983D-02	-0.121247D-01	-0.623898D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.199492D+00		
42	0.767440D-03	0.467649D-02	
43	-0.120918D+00	0.399233D-01	0.532563D+03

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.022	-0.018	-0.040	-0.010	0.017
8	0.028	-0.009	0.026	-0.009	-0.020
9	0.015	0.017	0.031	0.018	0.050
10	-0.005	0.032	0.016	0.008	0.021
11	0.036	0.017	-0.014	-0.014	0.009
12	0.000	0.020	-0.012	0.014	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020
20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.006	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005

34	-0.005	-0.013	0.005	0.050	0.009
35	0.014	0.005	-0.027	-0.021	0.003
36	-0.020	-0.014	-0.004	0.016	0.022
37	0.012	0.033	-0.005	-0.005	0.008
38	0.010	0.012	0.006	0.065	0.004
39	0.006	0.024	-0.021	0.002	0.000
40	0.005	0.001	-0.024	0.000	0.004
41	-0.024	-0.020	-0.011	-0.011	0.050
42	0.033	0.029	0.007	0.019	0.036
43	0.028	0.026	-0.003	-0.005	0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.003	-0.117	1.000		
9	0.006	0.041	0.126	1.000	
10	-0.003	0.000	-0.042	0.064	1.000
11	-0.015	-0.135	-0.031	0.027	-0.122
12	0.014	-0.004	0.103	-0.112	0.129
13	-0.018	0.049	0.003	0.006	-0.013
14	0.039	0.035	-0.029	0.006	0.026
15	0.017	-0.010	-0.012	0.026	0.046
16	-0.024	0.003	0.004	0.012	0.000
17	-0.035	0.003	-0.013	-0.012	0.004
18	-0.029	0.022	-0.014	-0.012	0.013
19	0.020	-0.015	-0.004	-0.001	-0.024
20	0.008	-0.014	0.048	0.012	-0.015
21	0.006	0.003	-0.058	-0.027	0.007
22	-0.043	0.013	0.025	-0.004	-0.019
23	-0.005	-0.009	0.002	-0.017	-0.019
24	-0.006	0.012	-0.016	0.025	0.013
25	-0.020	0.016	-0.041	-0.010	-0.025
26	-0.003	0.023	0.038	0.043	0.000
27	-0.009	0.046	0.011	0.031	0.026
28	0.033	-0.011	-0.032	0.032	0.033
29	-0.009	0.023	-0.031	0.006	-0.017
30	-0.005	0.002	0.037	0.000	0.043
31	0.004	-0.011	-0.050	-0.023	0.006
32	-0.006	0.014	-0.044	-0.028	0.003
33	0.030	0.023	0.028	0.011	0.010
34	-0.027	0.009	-0.027	-0.061	-0.007

35	-0.020	0.020	-0.002	-0.013	-0.004
36	-0.020	0.025	0.011	-0.036	-0.031
37	-0.009	-0.035	-0.056	-0.116	0.034
38	0.031	0.036	0.053	0.050	0.024
39	-0.009	-0.005	0.012	0.008	-0.014
40	-0.034	0.018	0.031	-0.005	-0.024
41	-0.027	-0.005	-0.003	-0.014	-0.010
42	-0.006	-0.084	-0.176	-0.051	-0.027
43	-0.052	-0.040	0.039	-0.006	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.179	1.000			
13	-0.004	-0.014	1.000		
14	0.018	0.045	0.334	1.000	
15	-0.008	0.005	0.062	0.327	1.000
16	0.007	-0.033	-0.185	-0.175	-0.084
17	0.053	-0.022	-0.092	-0.142	-0.200
18	-0.023	0.045	0.023	0.016	-0.011
19	-0.025	0.011	0.115	0.105	0.023
20	-0.057	-0.012	0.029	0.053	0.207
21	0.029	0.009	-0.025	-0.014	-0.026
22	0.000	0.007	0.014	-0.032	0.026
23	0.011	0.036	0.207	0.103	0.017
24	-0.032	0.016	0.056	0.145	0.140
25	0.023	-0.022	-0.021	-0.067	-0.008
26	-0.002	0.017	0.009	0.004	0.035
27	0.023	0.039	0.026	-0.014	-0.023
28	-0.010	-0.017	-0.109	-0.131	-0.041
29	0.052	0.030	-0.025	-0.083	-0.160
30	0.001	-0.001	0.076	0.055	0.023
31	0.002	0.001	-0.015	-0.020	-0.034
32	-0.006	0.014	0.008	-0.036	-0.001
33	0.001	0.000	0.026	0.009	0.002
34	-0.002	-0.001	0.000	0.006	0.027
35	-0.008	0.036	-0.017	-0.036	-0.047
36	-0.029	0.002	-0.025	-0.028	0.006
37	0.045	0.036	-0.061	-0.034	0.015
38	0.059	0.052	0.071	0.077	0.028
39	0.007	-0.002	0.015	0.050	0.048
40	-0.038	-0.022	0.039	0.031	-0.002

41	-0.024	0.006	-0.019	-0.017	0.009
42	0.015	0.036	-0.016	-0.034	-0.017
43	0.034	0.001	0.000	0.031	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.026	-0.049	0.041	0.032	0.001
35	0.015	0.043	0.005	0.004	-0.041
36	0.038	0.065	-0.034	-0.001	0.014
37	-0.010	-0.009	0.001	-0.024	-0.007
38	-0.028	-0.016	0.058	0.002	0.009
39	-0.024	-0.050	0.012	-0.016	-0.039
40	-0.012	-0.002	-0.013	0.020	0.015
41	0.013	-0.002	-0.042	-0.035	-0.023
42	-0.026	-0.006	-0.019	0.019	0.002
43	0.014	0.022	-0.056	0.022	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.042	0.051	1.000		

24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.056	0.023	-0.015	0.022	-0.029
35	0.013	0.026	0.008	-0.006	-0.031
36	-0.011	0.021	-0.066	0.005	-0.003
37	-0.026	-0.014	-0.050	-0.009	-0.015
38	0.018	0.014	0.028	0.025	0.004
39	0.029	-0.005	0.005	0.007	0.025
40	0.007	-0.045	-0.019	-0.025	0.037
41	0.005	0.001	-0.008	0.026	-0.014
42	0.004	-0.024	0.001	0.003	0.011
43	0.028	0.016	0.010	0.050	0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.017	-0.009	0.006	0.000	0.011
35	0.026	-0.009	-0.011	0.010	0.014
36	0.038	0.002	0.029	-0.005	-0.040
37	0.002	-0.012	0.028	0.004	-0.028
38	-0.031	-0.011	-0.038	-0.013	0.051
39	0.012	-0.023	0.000	-0.026	-0.002
40	-0.011	-0.018	0.030	0.016	-0.031
41	0.041	0.034	0.016	0.025	-0.021
42	-0.023	-0.009	0.001	0.003	-0.008
43	-0.040	-0.029	-0.008	0.012	-0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.017	-0.038	0.009	1.000	
35	-0.015	-0.009	0.006	-0.098	1.000
36	-0.016	-0.001	-0.048	-0.002	0.004
37	-0.005	0.020	0.016	0.001	0.025
38	-0.001	-0.012	0.028	-0.008	0.009
39	0.007	-0.005	0.024	-0.005	-0.014
40	-0.012	0.032	0.012	0.044	-0.004
41	0.049	-0.013	-0.027	-0.031	0.014
42	0.004	0.029	0.003	0.011	-0.006
43	-0.026	-0.029	0.007	-0.008	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	1.000				
37	0.187	1.000			
38	-0.202	-0.176	1.000		
39	0.018	0.003	-0.015	1.000	
40	0.035	0.016	-0.026	-0.145	1.000
41	0.000	0.037	-0.033	0.056	-0.092
42	0.041	0.604	-0.156	0.030	0.001
43	0.032	0.042	-0.013	-0.002	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES			
	41	42	43
41	1.000		
42	0.025	1.000	
43	-0.012	0.025	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION



CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.016	38
300	1.005	13
400	1.004	37
500	1.007	38
600	1.004	38
700	1.002	6
800	1.003	42
900	1.005	42
1000	1.001	42

Simple model, maximum likelihood estimation, deterioration in physical health

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	

THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters 3

Loglikelihood

H0 Value	-2021.083
H0 Scaling Correction Factor for MLR	2.0801

Information Criteria

Akaike (AIC)	4048.165
Bayesian (BIC)	4068.028
Sample-Size Adjusted BIC	4058.495
(n* = (n + 2) / 24)	

# MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Within Level				
Between Level				
PHYCAT16 ON PRAFAC	-0.164	0.049	-3.348	0.001
Thresholds PHYCAT16\$1	2.038	0.078	26.164	0.000
Residual Variances PHYCAT16	0.029	0.082	0.357	0.721

# RESULTS IN PROBABILITY SCALE

	Estimate
Within Level	
Between Level	
PHYCAT16 Category 1	0.883
Category 2	0.117

# QUALITY OF NUMERICAL RESULTS

Condition Number for the Information Matrix (ratio of smallest to largest eigenvalue)	0.157E+00
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TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU  
PHYCAT16  
———  
0

LAMBDA  
PHYCAT16  
PHYCAT16 ———  
0

THETA  
PHYCAT16  
PHYCAT16 ———  
0

ALPHA  
PHYCAT16  
———  
0

BETA  
PHYCAT16  
PHYCAT16 ———  
0

	PSI	
	PHYCAT16	
PHYCAT16	<u>          </u>	0

PARAMETER SPECIFICATION FOR BETWEEN

	TAU	
	PHYCAT16	
	<u>          </u>	3

	NU		
	PHYCAT16	PRAFAC	
	<u>          </u>	<u>          </u>	0
	0		0

	LAMBDA		
	PHYCAT16	PRAFAC	
	<u>          </u>	<u>          </u>	0
PHYCAT16	0		0
PRAFAC	0		0

	THETA		
	PHYCAT16	PRAFAC	
	<u>          </u>	<u>          </u>	
PHYCAT16	0		
PRAFAC	0		0

	ALPHA		
	PHYCAT16	PRAFAC	
	<u>          </u>	<u>          </u>	0
	0		0

	BETA		
	PHYCAT16	PRAFAC	
	<u>          </u>	<u>          </u>	

PHYCAT16	0	1
PRAFAC	0	0

	PSI	
	PHYCAT16	PRAFAC
PHYCAT16	<u>2</u>	
PRAFAC	0	<u>0</u>

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU
PHYCAT16
<u>0.000</u>

LAMBDA
PHYCAT16
<u>1.000</u>
PHYCAT16

THETA
PHYCAT16
<u>0.000</u>
PHYCAT16

ALPHA
PHYCAT16
<u>0.000</u>

	BETA	
	PHYCAT16	
PHYCAT16	<u>0.000</u>	

	PSI	
	PHYCAT16	
PHYCAT16	<u>1.000</u>	

STARTING VALUES FOR BETWEEN

	TAU	
	PHYCAT16	
	<u>1.998</u>	

	NU	
	PHYCAT16	PRAFAC
	<u>0.000</u>	<u>0.000</u>

	LAMBDA	
	PHYCAT16	PRAFAC
PHYCAT16	<u>1.000</u>	<u>0.000</u>
PRAFAC	0.000	1.000

	THETA	
	PHYCAT16	PRAFAC
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000

	ALPHA	
	PHYCAT16	PRAFAC
	<u>          </u>	<u>          </u>

	0.000	0.000
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	BETA	
	PHYCAT16	PRAFAC
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000

	PSI	
	PHYCAT16	PRAFAC
PHYCAT16	<u>1.000</u>	<u></u>
PRAFAC	0.000	0.504

TECHNICAL 3 OUTPUT

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	1	2	3
1	<u>0.238946D-02</u>	<u></u>	<u></u>
2	-0.235560D-02	0.664368D-02	
3	-0.156323D-02	0.478324D-02	0.606795D-02

	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES		
	1	2	3
1	<u>1.000</u>	<u></u>	<u></u>
2	-0.591	1.000	
3	-0.411	0.753	1.000

TECHNICAL 8 OUTPUT

E STEP	ITER	LOGLIKELIHOOD	ABS CHANGE	REL CHANGE	ALGORITHM
	1	-0.20458672D+04	0.0000000	0.0000000	EM
	2	-0.20252002D+04	20.6669185	0.0101018	FS
	3	-0.20213261D+04	3.8740890	0.0019129	FS
	4	-0.20212521D+04	0.0740163	0.0000366	FS



5	-0.20212181D+04	0.0339911	0.0000168	FS
6	-0.20211873D+04	0.0308504	0.0000153	FS
7	-0.20211605D+04	0.0267960	0.0000133	FS
8	-0.20211385D+04	0.0219717	0.0000109	FS
9	-0.20211214D+04	0.0171106	0.0000085	FS
10	-0.20211087D+04	0.0127337	0.0000063	FS
11	-0.20210996D+04	0.0091095	0.0000045	FS
12	-0.20210933D+04	0.0062983	0.0000031	FS
13	-0.20210890D+04	0.0042299	0.0000021	FS
14	-0.20210863D+04	0.0027719	0.0000014	FS
15	-0.20210845D+04	0.0017799	0.0000009	FS
16	-0.20210834D+04	0.0011239	0.0000006	FS
17	-0.20210827D+04	0.0007001	0.0000003	FS

Simple model, maximum likelihood estimation, reduced psychological distress (linear and curvilinear effects)

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

#### UNIVARIATE SAMPLE STATISTICS

##### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PRAFACSQ	1.379	1.240	0.002	1.72%	0.151	0.381	0.681
58.000	2.369	0.557	5.467	1.72%	1.168	2.366	

THE MODEL ESTIMATION TERMINATED NORMALLY

#### MODEL FIT INFORMATION

Number of Free Parameters 4

Loglikelihood

H0 Value	-710.220
H0 Scaling Correction Factor for MLR	0.6696

# Information Criteria

Akaike (AIC)	1428.441
Bayesian (BIC)	1448.500
Sample-Size Adjusted BIC	1435.795
(n* = (n + 2) / 24)	

## MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Within Level				
Between Level				
KESCAT16 ON				
PRAFAC	-0.219	0.064	-3.414	0.001
PRAFACSQ	-0.146	0.056	-2.624	0.009
Thresholds				
KESCAT16\$1	-0.770	0.065	-11.927	0.000
Residual Variances				
KESCAT16	0.000	0.000	0.526	0.599

## RESULTS IN PROBABILITY SCALE

	Estimate
Within Level	
Between Level	
KESCAT16	
Category 1	0.347
Category 2	0.653

## STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Within Level				
Between Level				
KESCAT16 ON				
PRAFAC	-0.774	0.167	-4.619	0.000
PRAFACSQ	-0.685	0.188	-3.636	0.000
Thresholds				
KESCAT16\$1	-2.350	0.566	-4.154	0.000
Residual Variances				
KESCAT16	0.000	0.000	0.576	0.565

R-SQUARE

Within Level

Between Level

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
KESCAT16	1.000	0.000	3933.540	0.000

QUALITY OF NUMERICAL RESULTS

Condition Number for the Information Matrix  
(ratio of smallest to largest eigenvalue) 0.575E-04

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

$$\begin{array}{r} \text{TAU} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

$$\begin{array}{r} \text{NU} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

$$\begin{array}{r} \text{LAMBDA} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

$$\begin{array}{r} \text{THETA} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

$$\begin{array}{r} \text{ALPHA} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

$$\begin{array}{r} \text{BETA} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

$$\begin{array}{r} \text{PSI} \\ \text{KESCAT16} \\ \hline 0 \end{array}$$

PARAMETER SPECIFICATION FOR BETWEEN

TAU  
KESCAT16  
———  
4

NU	KESCAT16	PRAFAC	PRAFACSQ
	———	———	———
	0	0	0

LAMBDA	KESCAT16	PRAFAC	PRAFACSQ
	———	———	———
KESCAT16	0	0	0
PRAFAC	0	0	0
PRAFACSQ	0	0	0

THETA	KESCAT16	PRAFAC	PRAFACSQ
	———	———	———
KESCAT16	0		
PRAFAC	0	0	
PRAFACSQ	0	0	0

ALPHA	KESCAT16	PRAFAC	PRAFACSQ
	———	———	———
	0	0	0

BETA	KESCAT16	PRAFAC	PRAFACSQ
	———	———	———
KESCAT16	0	1	2
PRAFAC	0	0	0
PRAFACSQ	0	0	0

	PSI		
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	<u>3</u>	<u></u>	<u></u>
PRAFAC	0	0	
PRAFACSQ	0	0	0

STARTING VALUES FOR WITHIN

TAU

KESCAT16	<u>0.000</u>
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NU

KESCAT16	<u>0.000</u>
----------	--------------

LAMBDA

KESCAT16	<u>1.000</u>
----------	--------------

THETA

KESCAT16	<u>0.000</u>
----------	--------------

ALPHA

KESCAT16	<u>0.000</u>
----------	--------------

BETA

KESCAT16	
----------	--

KESCAT16	<u>0.000</u>
----------	--------------

PSI	
KESCAT16	

KESCAT16	<u>1.000</u>
----------	--------------

STARTING VALUES FOR BETWEEN

TAU	
KESCAT16	

<u>-0.633</u>
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NU			
KESCAT16	PRAFAC	PRAFACSQ	

<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
--------------	--------------	--------------

LAMBDA			
KESCAT16	PRAFAC	PRAFACSQ	

KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	1.000	0.000
PRAFACSQ	0.000	0.000	1.000

THETA			
KESCAT16	PRAFAC	PRAFACSQ	

KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	
PRAFACSQ	0.000	0.000	0.000

ALPHA			
KESCAT16	PRAFAC	PRAFACSQ	

<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
--------------	--------------	--------------



0.000	0.000	0.000
-------	-------	-------

BETA			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000

PSI			
	KESCAT16	PRAFAC	PRAFACSQ
KESCAT16	1.000		
PRAFAC	0.000	0.469	
PRAFACSQ	0.000	0.000	0.654

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	0.410390D-02			
2	0.416890D-03	0.309108D-02		
3	-0.973636D-06	-0.307842D-06	0.893592D-09	
4	0.305265D-03	0.218999D-02	0.450982D-06	0.417206D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			
2	0.117	1.000		
3	-0.508	-0.185	1.000	
4	0.074	0.610	0.234	1.000

# TECHNICAL 8 OUTPUT

E STEP	ITER	LOGLIKELIHOOD	ABS CHANGE	REL CHANGE	ALGORITHM
--------	------	---------------	------------	------------	-----------

1	-0.72971915D+03	0.0000000	0.0000000	EM
2	-0.71559020D+03	14.1289541	0.0193622	FS
3	-0.71238856D+03	3.2016327	0.0044741	FS
4	-0.71230692D+03	0.0816451	0.0001146	FS
5	-0.71112637D+03	1.1805481	0.0016574	FS
6	-0.71072634D+03	0.4000244	0.0005625	EM
7	-0.71050218D+03	0.2241602	0.0003154	EM
8	-0.71037151D+03	0.1306764	0.0001839	EM
9	-0.71029865D+03	0.0728608	0.0001026	EM
10	-0.71025984D+03	0.0388080	0.0000546	EM
11	-0.71023986D+03	0.0199763	0.0000281	EM
12	-0.71022980D+03	0.0100662	0.0000142	EM
13	-0.71022478D+03	0.0050125	0.0000071	EM
14	-0.71022230D+03	0.0024804	0.0000035	EM
15	-0.71022108D+03	0.0012235	0.0000017	EM
16	-0.71022048D+03	0.0006026	0.0000008	EM

# Deterioration in physical health, job control interaction

## SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.947	0.947	0.947		
KES15	0.922	0.922	0.922	0.922	
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.915		
PRESS15	0.914	0.915	
DUTIES15	0.915	0.915	0.915

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	3.225	-0.402	1.000	7.41%	2.000	3.000	3.000
5077.000	1.081	-0.336	5.000	8.49%	4.000	4.000	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 43

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.976	0.070	0.000	0.834	1.118	*
BULLY15	0.029	0.050	0.276	-0.071	0.126	
DUTIES15	-0.032	0.026	0.126	-0.084	0.020	
PRESS15	-0.033	0.027	0.121	-0.086	0.019	
KES15	0.227	0.045	0.000	0.140	0.314	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.088	0.008	0.000	-0.103	-0.072	*
BULLY15	0.057	0.004	0.000	0.050	0.066	*
PRESS15	0.099	0.007	0.000	0.085	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.120	-0.091	*
PHY15 WITH						
CHOICE15	-0.033	0.007	0.000	-0.047	-0.020	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.038	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.049	-0.024	*
CHOICE15 WITH						
BULLY15	-0.056	0.007	0.000	-0.070	-0.042	*
PRESS15	-0.075	0.015	0.000	-0.107	-0.047	*
DUTIES15	0.169	0.013	0.000	0.142	0.196	*
BULLY15 WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.006	0.000	-0.090	-0.065	*
PRESS15 WITH						
DUTIES15	-0.185	0.014	0.000	-0.213	-0.159	*
Means						
PHY15	0.002	0.007	0.380	-0.011	0.016	
KES15	0.001	0.008	0.430	-0.014	0.017	
BULLY15	0.001	0.007	0.467	-0.013	0.016	
PRESS15	0.001	0.014	0.483	-0.025	0.030	
DUTIES15	0.000	0.013	0.496	-0.026	0.024	

Variances						
PHY15	0.233	0.005	0.000	0.225	0.242	*
KES15	0.290	0.006	0.000	0.278	0.302	*
CHOICE15	1.041	0.020	0.000	1.003	1.080	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.044	*
DUTIES15	0.861	0.018	0.000	0.829	0.897	*
Between Level						
S1	ON					
PRAFAC		0.051	0.028	0.031	-0.003	0.107
PHYCAT16	ON					
PRAFAC		-0.079	0.031	0.006	-0.140	-0.017 *
CHOICE15		-0.165	0.173	0.179	-0.500	0.162
PRAFAC	WITH					
CHOICE15		0.039	0.045	0.183	-0.050	0.128
Means						
PRAFAC		-0.182	0.155	0.122	-0.484	0.116
CHOICE15		3.311	0.038	0.000	3.237	3.384 *
Intercepts						
S1		-0.052	0.031	0.047	-0.110	0.009
Thresholds						
PHYCAT16\$1		0.816	0.567	0.075	-0.285	1.881
Variances						
PRAFAC		1.348	0.260	0.000	0.954	1.984 *
CHOICE15		0.061	0.014	0.000	0.040	0.094 *
Residual Variances						
PHYCAT16		0.015	0.012	0.000	0.001	0.048 *
S1		0.004	0.005	0.000	0.000	0.020 *

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON CHOICE15	-0.055	0.026	0.020	-0.105	-0.002	*
PHYCAT16 ON						
PHY15	0.416	0.025	0.000	0.365	0.464	*
BULLY15	0.013	0.022	0.276	-0.030	0.055	
DUTIES15	-0.026	0.022	0.122	-0.070	0.018	
PRESS15	-0.029	0.024	0.120	-0.076	0.018	
KES15	0.108	0.021	0.000	0.066	0.149	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.160	0.014	0.000	-0.186	-0.132	*
BULLY15	0.219	0.014	0.000	0.191	0.245	*
PRESS15	0.185	0.013	0.000	0.160	0.211	*
DUTIES15	-0.212	0.014	0.000	-0.240	-0.184	*
PHY15 WITH						
CHOICE15	-0.066	0.014	0.000	-0.094	-0.038	*
BULLY15	0.050	0.014	0.000	0.022	0.076	*
PRESS15	0.080	0.014	0.000	0.053	0.107	*
DUTIES15	-0.081	0.014	0.000	-0.108	-0.053	*
CHOICE15 WITH						
BULLY15	-0.112	0.014	0.000	-0.138	-0.085	*
PRESS15	-0.074	0.015	0.000	-0.103	-0.047	*
DUTIES15	0.179	0.014	0.000	0.151	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.188	0.240	*
DUTIES15	-0.171	0.013	0.000	-0.197	-0.145	*
PRESS15 WITH						
DUTIES15	-0.199	0.013	0.000	-0.226	-0.173	*
Means						
PHY15	0.004	0.014	0.385	-0.023	0.032	
KES15	0.003	0.014	0.426	-0.025	0.030	



BULLY15	0.001	0.014	0.471	-0.025	0.029	
PRESS15	0.000	0.014	0.484	-0.026	0.029	
DUTIES15	-0.001	0.014	0.488	-0.028	0.025	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	0.695	0.281	0.031	-0.046	0.989	
PHYCAT16 ON						
PRAFAC	-0.557	0.196	0.006	-0.908	-0.129	*
CHOICE15	-0.250	0.245	0.179	-0.679	0.266	
PRAFAC WITH						
CHOICE15	0.138	0.145	0.183	-0.167	0.401	
Means						
PRAFAC	-0.159	0.133	0.122	-0.418	0.108	
CHOICE15	13.371	1.438	0.000	10.853	16.556	*
Intercepts						
S1	-0.598	0.489	0.047	-1.878	0.080	
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.535	0.213	0.000	0.064	0.907	*
S1	0.517	0.290	0.000	0.022	0.994	*
R-SQUARE						
Within-Level R-Square Averaged Across Clusters						

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.222	0.022	0.000	0.181	0.267

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.465	0.213	0.000	0.093	0.936

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.483	0.290	0.000	0.006	0.978

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15

	0	1	2	0	3
ALPHA					
PRESS15		DUTIES15			
	<hr/> 4	<hr/> 5			
BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	6	7	0	8
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
BETA					
PRESS15		DUTIES15			
	<hr/>	<hr/>			
PHYCAT16	9	10			
PHY15	0	0			
KES15	0	0			
CHOICE15	0	0			
BULLY15	0	0			
PRESS15	0	0			
DUTIES15	0	0			
PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>43</u>

NU			
PHYCAT16	PRAFAC	CHOICE15	
<u>0</u>	<u>0</u>	<u>0</u>	

LAMBDA				
S1	PHYCAT16	PRAFAC	CHOICE15	
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0

THETA			
PHYCAT16	PRAFAC	CHOICE15	
<u>0</u>	<u></u>	<u></u>	
PHYCAT16	0		
PRAFAC	0		
CHOICE15	0	0	

ALPHA			
S1	PHYCAT16	PRAFAC	CHOICE15
<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

BETA				
	S1	PHYCAT16	PRAFAC	CHOICE15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0

PSI				
	S1	PHYCAT16	PRAFAC	CHOICE15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
PHYCAT16	0	39		
PRAFAC	0	0	40	
CHOICE15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU	
PHYCAT16	
<u>0.000</u>	

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

LAMBDA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI



	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	PHYCAT16	PRAFAC	CHOICE15
	0.000	0.000	0.000

LAMBDA	PHYCAT16	PRAFAC	CHOICE15
S1			
PHYCAT16	0.000	1.000	0.000
PRAFAC	0.000	0.000	1.000
CHOICE15	0.000	0.000	1.000

THETA	PHYCAT16	PRAFAC	CHOICE15
PHYCAT16	0.000		
PRAFAC	0.000	0.000	
CHOICE15	0.000	0.000	0.000

ALPHA	PHYCAT16	PRAFAC	CHOICE15
S1			
	0.000	0.000	0.020
			3.225

BETA

	S1	PHYCAT16	PRAFAC	CHOICE15
S1	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000

PSI				
	S1	PHYCAT16	PRAFAC	CHOICE15
S1	1.000			
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.504	
CHOICE15	0.000	0.000	0.000	0.541

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity

Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.454691D-04				
2	0.104443D-04	0.607964D-04			
3	0.253943D-05	0.159997D-04	0.518004D-04		
4	0.587797D-05	0.142389D-04	0.233568D-04	0.195336D-03	
5	-0.560729D-05	-0.204433D-04	-0.202960D-04	-0.395810D-04	0.166271D-03
6	0.137722D-04	0.460475D-06	0.234392D-04	0.960195D-05	-0.383595D-04
7	-0.174102D-04	0.827155D-05	-0.123303D-05	-0.157704D-04	0.365434D-05
8	-0.313247D-05	-0.141137D-04	-0.105993D-04	0.116281D-05	-0.507916D-05
9	0.960104D-05	0.288043D-05	-0.111806D-05	-0.385139D-05	0.573227D-05
10	0.598596D-05	-0.363500D-05	-0.106854D-07	-0.151493D-04	0.110673D-04
11	0.649792D-06	0.148156D-06	0.245956D-06	-0.963076D-06	0.248842D-06
12	-0.113425D-05	-0.103347D-05	-0.177841D-06	-0.186949D-05	-0.334109D-06
13	0.805237D-06	0.110503D-05	-0.375797D-07	0.639633D-06	-0.176556D-05
14	0.338951D-06	-0.264334D-06	-0.197824D-05	0.987403D-06	0.206000D-05
15	0.101008D-05	-0.190279D-05	-0.154049D-05	-0.476841D-05	0.867856D-06
16	-0.691243D-05	-0.143592D-06	0.399554D-05	0.322467D-05	0.740681D-05
17	0.787755D-07	0.628729D-06	0.156957D-06	-0.173404D-05	0.102000D-05

18	-0.123416D-07	0.896028D-06	0.239822D-06	0.925562D-06	-0.398504D-06
19	0.965545D-07	-0.346435D-06	0.190927D-05	0.152427D-05	-0.255991D-06
20	0.921546D-06	0.246699D-05	0.119178D-05	0.333772D-06	-0.215414D-05
21	-0.391402D-06	0.208494D-05	0.185204D-05	0.752272D-07	-0.284686D-06
22	-0.845270D-06	-0.302273D-06	0.130358D-05	0.121996D-05	-0.876353D-06
23	-0.243234D-05	-0.177275D-05	0.297802D-07	-0.455417D-06	-0.922852D-05
24	0.106001D-05	0.100754D-05	-0.107280D-06	0.592066D-07	0.267103D-05
25	-0.107475D-05	-0.446969D-06	0.211208D-06	0.335843D-05	0.294722D-05
26	0.215822D-05	-0.125489D-05	-0.293973D-05	0.856478D-06	0.295398D-05
27	0.221211D-05	0.470331D-06	0.117977D-05	-0.281172D-05	0.129658D-05
28	-0.422918D-05	0.308911D-05	0.136868D-05	0.660841D-05	-0.132863D-06
29	0.945206D-06	-0.407389D-06	0.117772D-05	-0.502565D-05	0.234882D-05
30	0.152254D-05	0.241615D-05	-0.301703D-06	-0.245670D-05	-0.576479D-05
31	-0.464009D-05	0.523897D-06	-0.173044D-05	0.100616D-04	-0.126543D-04
32	-0.269638D-05	0.399628D-05	-0.119911D-05	-0.693038D-05	0.646013D-05
33	-0.286313D-04	-0.464533D-04	0.375387D-04	-0.432381D-04	0.266107D-04
34	-0.178936D-04	-0.253374D-04	-0.163992D-04	-0.187378D-04	0.468343D-04
35	0.294544D-05	-0.540719D-05	0.898124D-05	0.307340D-05	0.512694D-05
36	-0.367673D-05	0.918229D-05	0.165302D-04	-0.102266D-04	0.708285D-05
37	-0.783606D-05	0.398230D-04	0.771537D-04	0.847492D-04	-0.954338D-04
38	-0.152095D-05	0.348898D-06	0.110321D-05	-0.312390D-05	0.220587D-05
39	0.537810D-06	-0.278808D-05	-0.919943D-06	-0.436543D-05	-0.358996D-05
40	-0.414918D-04	-0.621235D-04	0.342249D-04	0.148251D-03	-0.538322D-04
41	-0.369010D-05	-0.362369D-05	-0.599362D-05	0.111371D-04	-0.608216D-05
42	-0.305367D-05	-0.127644D-05	-0.366688D-05	-0.230899D-05	-0.224511D-05
43	-0.198527D-04	0.130628D-03	0.254775D-03	0.283340D-03	-0.325337D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.492439D-02				
7	-0.326117D-03	0.205785D-02			
8	0.561745D-04	-0.404623D-03	0.249451D-02		
9	-0.112200D-04	-0.116708D-03	-0.285577D-03	0.718120D-03	
10	0.951383D-04	0.134584D-03	0.120326D-03	0.109229D-03	0.697183D-03
11	0.494043D-05	0.116645D-04	-0.775199D-05	0.122440D-05	0.114456D-05
12	-0.812879D-05	0.764244D-05	-0.271658D-07	-0.901588D-06	-0.325052D-05
13	-0.117686D-04	0.895915D-05	-0.542853D-05	0.198295D-05	-0.400948D-05
14	0.316467D-05	-0.693447D-05	0.171329D-04	-0.515937D-05	-0.108322D-05
15	0.343218D-04	-0.101872D-04	0.132654D-04	-0.295332D-05	0.337139D-05
16	0.394390D-05	0.479182D-04	0.199765D-04	-0.639397D-05	0.705799D-05
17	-0.288868D-05	0.746530D-06	-0.424395D-05	-0.561114D-07	-0.199096D-05
18	-0.481466D-05	0.766836D-05	-0.333524D-05	0.121071D-05	-0.281379D-05

19	0.256405D-04	-0.102780D-04	-0.284475D-05	0.624288D-05	0.988860D-06
20	-0.950807D-05	0.818356D-05	0.321507D-06	0.211493D-05	0.134431D-05
21	-0.166546D-04	-0.789874D-06	-0.276980D-05	0.557951D-05	-0.354565D-05
22	-0.148976D-04	0.113807D-04	-0.256999D-05	0.213271D-05	0.892143D-06
23	0.407405D-04	-0.219267D-04	0.372572D-06	0.121792D-04	0.281197D-06
24	-0.838944D-05	0.119172D-04	-0.123185D-04	0.500303D-05	0.732847D-05
25	-0.414661D-04	0.224046D-04	-0.131365D-04	0.183254D-05	0.143002D-04
26	0.142043D-04	-0.321734D-07	0.124634D-04	-0.346344D-05	0.599761D-05
27	0.154800D-04	-0.901334D-05	-0.818997D-05	0.249544D-05	0.232474D-05
28	-0.265652D-04	0.127163D-04	0.159990D-04	-0.723143D-05	-0.898890D-05
29	0.809967D-05	-0.200943D-04	0.151952D-04	-0.314069D-05	0.665936D-05
30	0.335051D-04	-0.140232D-04	0.218104D-04	-0.611043D-05	0.851295D-05
31	0.927097D-05	0.119516D-04	-0.147972D-04	0.401503D-05	-0.385769D-05
32	-0.104064D-03	0.211681D-03	-0.570423D-05	0.386999D-04	-0.558923D-04
33	0.370820D-04	0.208149D-03	-0.738808D-04	-0.249649D-04	-0.418369D-04
34	0.344277D-04	0.475733D-04	-0.442992D-04	-0.107558D-04	0.140733D-04
35	-0.538224D-04	-0.239443D-04	-0.706178D-04	0.268599D-04	-0.128986D-04
36	-0.872403D-04	0.843436D-04	-0.122030D-04	-0.642031D-04	0.133083D-04
37	0.540859D-03	-0.240427D-03	0.465469D-03	-0.333077D-04	-0.128760D-03
38	0.148041D-04	-0.734712D-05	-0.107798D-06	0.127148D-05	-0.296971D-05
39	0.327472D-04	0.333766D-04	-0.570054D-05	0.124287D-04	0.194979D-05
40	0.393718D-04	0.384340D-04	0.211031D-03	-0.144659D-03	-0.463176D-04
41	-0.258327D-05	-0.495559D-04	0.826381D-05	0.402470D-04	-0.454862D-05
42	0.845992D-05	-0.203276D-04	0.117833D-04	0.730639D-05	-0.256064D-06
43	0.278407D-02	-0.695031D-03	0.149218D-02	-0.116376D-03	-0.404980D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.209437D-04				
12	0.454878D-05	0.135737D-04			
13	0.534435D-06	0.640152D-05	0.342940D-04		
14	-0.339521D-05	-0.391609D-05	-0.361321D-05	0.496486D-04	
15	0.260113D-06	-0.320456D-05	-0.131631D-04	0.115753D-04	0.651023D-04
16	0.258163D-05	0.141549D-05	0.629134D-05	-0.128881D-04	-0.341771D-04
17	0.650850D-06	0.269101D-05	0.104617D-05	-0.269313D-05	-0.437740D-06
18	-0.175074D-06	0.151121D-05	0.744062D-05	-0.206441D-05	-0.538087D-05
19	-0.100140D-05	-0.131110D-05	-0.255563D-05	0.370448D-05	0.119414D-04
20	0.837109D-06	0.382700D-06	0.181092D-05	0.207660D-06	-0.591744D-06
21	0.317534D-05	0.530669D-05	0.313526D-05	-0.416754D-05	-0.200409D-05
22	0.292266D-05	0.471544D-05	0.123890D-04	-0.385557D-05	-0.926242D-05
23	-0.152551D-05	-0.311895D-05	-0.698573D-05	0.867290D-05	0.216087D-04
24	0.581395D-06	0.172907D-05	0.362361D-05	-0.149987D-05	-0.313515D-05

25	0.380952D-05	0.303383D-05	0.853824D-05	-0.816471D-05	-0.793711D-05
26	-0.422405D-05	-0.609947D-05	-0.269305D-05	0.881972D-05	0.157529D-05
27	-0.184387D-05	-0.482482D-05	-0.150501D-04	0.504338D-05	0.136247D-04
28	0.139288D-05	0.232104D-05	0.568177D-05	-0.794128D-05	-0.260227D-04
29	-0.174100D-05	-0.217546D-05	-0.351486D-05	0.271557D-05	0.401675D-05
30	-0.230074D-05	-0.217245D-05	-0.711049D-05	0.191946D-05	0.514019D-05
31	0.320914D-05	0.319811D-05	0.875906D-05	-0.196047D-05	-0.108522D-04
32	0.386128D-05	0.404755D-05	0.102349D-04	-0.693393D-05	-0.239775D-05
33	0.181843D-04	0.207017D-04	0.863613D-06	0.209327D-04	0.576996D-04
34	-0.557290D-06	0.313996D-05	0.799752D-05	-0.299148D-05	-0.336520D-05
35	-0.608051D-05	-0.161105D-05	0.948129D-05	-0.374963D-05	-0.247783D-04
36	-0.121830D-05	0.516304D-05	0.147951D-05	-0.203628D-05	-0.105960D-04
37	0.845630D-05	-0.112051D-04	-0.278463D-04	-0.290440D-05	0.767121D-05
38	0.231601D-06	0.159818D-06	0.906666D-06	0.101264D-05	0.889551D-07
39	0.260189D-05	0.803612D-06	-0.236787D-06	-0.271864D-05	0.257548D-05
40	0.146597D-04	-0.620477D-05	0.150468D-04	-0.821638D-05	-0.453758D-04
41	-0.447270D-05	-0.193324D-05	-0.170780D-05	-0.520924D-05	0.644993D-05
42	-0.440639D-06	-0.576025D-06	-0.117339D-05	-0.409472D-05	-0.238035D-05
43	0.359334D-04	-0.406278D-04	-0.991366D-04	-0.119668D-04	0.434625D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.391675D-03				
17	-0.658887D-06	0.104563D-04			
18	0.557769D-05	0.226695D-05	0.148948D-04		
19	-0.257825D-04	-0.807841D-06	-0.466087D-05	0.500599D-04	
20	0.813597D-06	0.575234D-06	0.483825D-05	-0.495151D-05	0.223020D-04
21	0.178976D-05	0.502418D-05	0.223888D-05	-0.268180D-05	0.145749D-05
22	0.126954D-04	0.186753D-05	0.792421D-05	-0.327409D-05	0.167838D-05
23	-0.391022D-04	-0.466603D-05	-0.223986D-05	0.262545D-04	-0.623366D-06
24	0.302535D-05	0.166972D-05	0.598701D-05	-0.561396D-05	0.836888D-05
25	0.792586D-05	0.219931D-05	0.525146D-05	-0.388177D-05	0.489674D-05
26	-0.430062D-05	-0.432114D-05	-0.117975D-05	0.169163D-05	0.102284D-06
27	-0.112339D-04	-0.971162D-06	-0.627764D-05	0.466077D-05	-0.238176D-05
28	0.590284D-04	0.177436D-05	0.409077D-05	-0.195184D-04	-0.129615D-05
29	-0.334085D-05	-0.191716D-05	-0.599874D-05	0.100224D-04	-0.732123D-05
30	-0.192525D-05	-0.547264D-06	-0.549520D-05	0.986225D-05	-0.447318D-05
31	0.120832D-04	0.260901D-06	0.352846D-05	-0.911460D-05	0.209991D-05
32	-0.364423D-05	0.140415D-05	0.527157D-05	-0.206337D-05	0.355490D-05
33	0.622345D-04	-0.108258D-05	-0.239407D-04	0.715251D-04	-0.918294D-05
34	0.654863D-05	0.301961D-05	0.409780D-05	0.511988D-05	-0.312642D-05
35	0.205281D-04	-0.524456D-06	0.318715D-05	-0.195192D-05	-0.299428D-05

36	-0.842091D-05	-0.101870D-05	-0.126153D-05	-0.179204D-05	0.163916D-05
37	0.148879D-04	0.152820D-04	-0.200106D-04	-0.177237D-04	0.294598D-04
38	0.291064D-06	0.401107D-06	0.621446D-06	-0.194329D-05	0.136409D-05
39	0.680818D-05	0.323042D-06	0.628173D-06	0.147538D-06	-0.885698D-06
40	-0.144670D-04	0.152911D-04	0.133558D-04	0.411379D-04	-0.108638D-04
41	-0.189525D-07	-0.153824D-05	0.218836D-05	0.665713D-05	0.612557D-05
42	0.272836D-06	0.356290D-06	-0.320559D-06	-0.166473D-05	-0.229832D-05
43	0.267140D-04	0.481361D-04	-0.660658D-04	-0.500925D-04	0.868820D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.462721D-04				
22	0.113090D-04	0.561989D-04			
23	-0.922887D-05	-0.186395D-04	0.223423D-03		
24	0.434430D-05	0.125162D-04	-0.135936D-04	0.475412D-04	
25	0.219272D-04	0.457613D-04	-0.237641D-04	0.383775D-04	0.414769D-03
26	-0.879664D-05	-0.353328D-05	0.507368D-05	-0.303919D-06	-0.522742D-05
27	-0.260117D-05	-0.141351D-04	0.985004D-05	-0.470107D-05	-0.128892D-04
28	0.574531D-05	0.756904D-05	-0.438867D-04	0.266407D-05	0.448783D-05
29	-0.312276D-05	-0.650231D-05	0.233486D-05	-0.901844D-05	-0.104145D-04
30	-0.102669D-04	-0.245240D-04	0.386372D-04	-0.203697D-04	-0.780438D-04
31	0.348212D-05	0.929518D-05	-0.851305D-05	0.505626D-05	0.199254D-04
32	0.332745D-06	0.208819D-05	0.274903D-05	0.692970D-05	0.300905D-06
33	0.650154D-05	-0.141644D-05	0.416628D-04	-0.188863D-04	-0.996481D-04
34	0.374739D-05	0.232004D-05	0.303905D-04	-0.518723D-05	0.555864D-05
35	-0.178426D-05	0.627052D-05	-0.145001D-04	-0.189811D-05	-0.619059D-05
36	-0.864735D-05	0.229087D-05	0.653019D-05	0.984537D-06	0.167957D-04
37	0.319308D-04	-0.281573D-04	-0.638480D-05	0.143689D-04	0.652961D-04
38	-0.155838D-06	-0.309542D-07	-0.186154D-05	0.139492D-05	-0.605096D-05
39	0.154441D-05	0.542010D-06	-0.270367D-05	-0.188390D-05	-0.660629D-05
40	0.357430D-05	0.424677D-04	-0.639612D-04	-0.302568D-04	0.591687D-04
41	-0.819011D-05	0.167544D-05	0.973295D-05	-0.474628D-05	0.923350D-05
42	0.390326D-06	-0.431952D-06	0.453963D-05	0.179990D-05	0.206122D-05
43	0.964670D-04	-0.100765D-03	-0.902971D-05	0.376619D-04	0.198176D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.399474D-04				
27	0.944777D-05	0.548265D-04			
28	-0.833587D-05	-0.244987D-04	0.181341D-03		

29	0.211395D-05	0.134879D-04	-0.114316D-04	0.411009D-04	
30	0.812305D-05	0.247369D-04	-0.211726D-04	0.236818D-04	0.187420D-03
31	-0.116420D-04	-0.428173D-04	0.666781D-04	-0.326547D-04	-0.760528D-04
32	0.513107D-06	-0.755796D-05	0.605135D-05	-0.121012D-04	-0.771557D-05
33	-0.205133D-04	0.229404D-04	-0.710561D-04	0.255803D-04	0.377152D-04
34	0.697562D-05	-0.959436D-06	0.135916D-05	-0.167169D-05	-0.193090D-04
35	0.880792D-05	-0.927009D-06	-0.319801D-05	0.856095D-06	-0.368499D-05
36	-0.370091D-05	0.468367D-05	0.119925D-05	0.590791D-05	0.105819D-04
37	-0.596621D-04	-0.182338D-04	0.762148D-04	0.300861D-04	-0.599043D-05
38	0.101437D-05	-0.359061D-06	0.837682D-06	-0.698834D-06	0.197492D-05
39	0.666096D-06	0.194114D-06	0.137721D-05	0.682035D-06	0.397980D-05
40	-0.990117D-05	-0.663880D-04	-0.868987D-05	0.500965D-04	0.992866D-04
41	0.158477D-05	0.191515D-05	-0.286566D-04	-0.480540D-05	0.448000D-05
42	0.216366D-05	0.141478D-05	-0.291839D-05	0.299443D-05	0.304689D-05
43	-0.197570D-03	-0.473258D-04	0.230220D-03	0.100943D-03	-0.864037D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.314756D-03				
32	0.253250D-04	0.961379D-03			
33	-0.310843D-04	0.155797D-03	0.241049D-01		
34	0.136465D-04	0.771554D-05	0.958814D-03	0.142737D-02	
35	0.737807D-05	0.964284D-04	-0.105585D-04	0.223380D-04	0.763269D-03
36	-0.100735D-04	-0.324103D-05	0.635969D-04	-0.107219D-04	0.593381D-04
37	-0.113058D-04	-0.184402D-03	0.551118D-03	-0.623869D-04	0.679902D-04
38	0.938780D-06	0.311457D-04	0.798837D-05	0.840802D-05	0.166449D-04
39	0.460025D-06	-0.588789D-05	0.892497D-05	-0.504675D-07	0.409585D-05
40	0.765306D-05	0.162498D-03	-0.448196D-03	0.393769D-03	0.240129D-03
41	0.285295D-05	0.239502D-04	-0.165583D-03	0.492645D-05	0.544394D-04
42	-0.548273D-05	0.117237D-04	0.496384D-04	0.204345D-04	-0.468610D-05
43	-0.391384D-05	-0.669043D-03	0.194419D-02	-0.230645D-03	0.223822D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.954897D-03				
37	-0.704844D-03	0.300193D-01			
38	-0.125663D-05	0.457089D-05	0.278876D-04		
39	-0.518785D-04	-0.170970D-03	-0.135607D-05	0.146271D-03	
40	0.216408D-03	0.575192D-04	-0.792808D-05	-0.161776D-04	0.674037D-01
41	0.365199D-04	0.377481D-04	0.117697D-05	-0.864665D-05	0.148217D-02



42	0.106074D-04	0.581321D-04	0.108634D-05	-0.776201D-05	0.166564D-03
43	-0.244538D-02	0.979523D-01	0.256139D-04	-0.484921D-03	0.122245D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.199298D-02		
42	0.889183D-04	0.189806D-03	
43	0.651044D-04	0.171397D-03	0.321006D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.199	1.000			
3	0.052	0.285	1.000		
4	0.062	0.131	0.232	1.000	
5	-0.064	-0.203	-0.219	-0.220	1.000
6	0.029	0.001	0.046	0.010	-0.042
7	-0.057	0.023	-0.004	-0.025	0.006
8	-0.009	-0.036	-0.029	0.002	-0.008
9	0.053	0.014	-0.006	-0.010	0.017
10	0.034	-0.018	0.000	-0.041	0.033
11	0.021	0.004	0.007	-0.015	0.004
12	-0.046	-0.036	-0.007	-0.036	-0.007
13	0.020	0.024	-0.001	0.008	-0.023
14	0.007	-0.005	-0.039	0.010	0.023
15	0.019	-0.030	-0.027	-0.042	0.008
16	-0.052	-0.001	0.028	0.012	0.029
17	0.004	0.025	0.007	-0.038	0.024
18	0.000	0.030	0.009	0.017	-0.008
19	0.002	-0.006	0.037	0.015	-0.003
20	0.029	0.067	0.035	0.005	-0.035
21	-0.009	0.039	0.038	0.001	-0.003
22	-0.017	-0.005	0.024	0.012	-0.009
23	-0.024	-0.015	0.000	-0.002	-0.048
24	0.023	0.019	-0.002	0.001	0.030
25	-0.008	-0.003	0.001	0.012	0.011
26	0.051	-0.025	-0.065	0.010	0.036
27	0.044	0.008	0.022	-0.027	0.014
28	-0.047	0.029	0.014	0.035	-0.001
29	0.022	-0.008	0.026	-0.056	0.028

30	0.016	0.023	-0.003	-0.013	-0.033
31	-0.039	0.004	-0.014	0.041	-0.055
32	-0.013	0.017	-0.005	-0.016	0.016
33	-0.027	-0.038	0.034	-0.020	0.013
34	-0.070	-0.086	-0.060	-0.035	0.096
35	0.016	-0.025	0.045	0.008	0.014
36	-0.018	0.038	0.074	-0.024	0.018
37	-0.007	0.029	0.062	0.035	-0.043
38	-0.043	0.008	0.029	-0.042	0.032
39	0.007	-0.030	-0.011	-0.026	-0.023
40	-0.024	-0.031	0.018	0.041	-0.016
41	-0.012	-0.010	-0.019	0.018	-0.011
42	-0.033	-0.012	-0.037	-0.012	-0.013
43	-0.005	0.030	0.062	0.036	-0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.102	1.000			
8	0.016	-0.179	1.000		
9	-0.006	-0.096	-0.213	1.000	
10	0.051	0.112	0.091	0.154	1.000
11	0.015	0.056	-0.034	0.010	0.009
12	-0.031	0.046	0.000	-0.009	-0.033
13	-0.029	0.034	-0.019	0.013	-0.026
14	0.006	-0.022	0.049	-0.027	-0.006
15	0.061	-0.028	0.033	-0.014	0.016
16	0.003	0.053	0.020	-0.012	0.014
17	-0.013	0.005	-0.026	-0.001	-0.023
18	-0.018	0.044	-0.017	0.012	-0.028
19	0.052	-0.032	-0.008	0.033	0.005
20	-0.029	0.038	0.001	0.017	0.011
21	-0.035	-0.003	-0.008	0.031	-0.020
22	-0.028	0.033	-0.007	0.011	0.005
23	0.039	-0.032	0.000	0.030	0.001
24	-0.017	0.038	-0.036	0.027	0.040
25	-0.029	0.024	-0.013	0.003	0.027
26	0.032	0.000	0.039	-0.020	0.036
27	0.030	-0.027	-0.022	0.013	0.012
28	-0.028	0.021	0.024	-0.020	-0.025
29	0.018	-0.069	0.047	-0.018	0.039
30	0.035	-0.023	0.032	-0.017	0.024

31	0.007	0.015	-0.017	0.008	-0.008
32	-0.048	0.150	-0.004	0.047	-0.068
33	0.003	0.030	-0.010	-0.006	-0.010
34	0.013	0.028	-0.023	-0.011	0.014
35	-0.028	-0.019	-0.051	0.036	-0.018
36	-0.040	0.060	-0.008	-0.078	0.016
37	0.044	-0.031	0.054	-0.007	-0.028
38	0.040	-0.031	0.000	0.009	-0.021
39	0.039	0.061	-0.009	0.038	0.006
40	0.002	0.003	0.016	-0.021	-0.007
41	-0.001	-0.024	0.004	0.034	-0.004
42	0.009	-0.033	0.017	0.020	-0.001
43	0.070	-0.027	0.053	-0.008	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.270	1.000			
13	0.020	0.297	1.000		
14	-0.105	-0.151	-0.088	1.000	
15	0.007	-0.108	-0.279	0.204	1.000
16	0.029	0.019	0.054	-0.092	-0.214
17	0.044	0.226	0.055	-0.118	-0.017
18	-0.010	0.106	0.329	-0.076	-0.173
19	-0.031	-0.050	-0.062	0.074	0.209
20	0.039	0.022	0.065	0.006	-0.016
21	0.102	0.212	0.079	-0.087	-0.037
22	0.085	0.171	0.282	-0.073	-0.153
23	-0.022	-0.057	-0.080	0.082	0.179
24	0.018	0.068	0.090	-0.031	-0.056
25	0.041	0.040	0.072	-0.057	-0.048
26	-0.146	-0.262	-0.073	0.198	0.031
27	-0.054	-0.177	-0.347	0.097	0.228
28	0.023	0.047	0.072	-0.084	-0.240
29	-0.059	-0.092	-0.094	0.060	0.078
30	-0.037	-0.043	-0.089	0.020	0.047
31	0.040	0.049	0.084	-0.016	-0.076
32	0.027	0.035	0.056	-0.032	-0.010
33	0.026	0.036	0.001	0.019	0.046
34	-0.003	0.023	0.036	-0.011	-0.011
35	-0.048	-0.016	0.059	-0.019	-0.111
36	-0.009	0.045	0.008	-0.009	-0.042

37	0.011	-0.018	-0.027	-0.002	0.005
38	0.010	0.008	0.029	0.027	0.002
39	0.047	0.018	-0.003	-0.032	0.026
40	0.012	-0.006	0.010	-0.004	-0.022
41	-0.022	-0.012	-0.007	-0.017	0.018
42	-0.007	-0.011	-0.015	-0.042	-0.021
43	0.014	-0.019	-0.030	-0.003	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	-0.010	1.000			
18	0.073	0.182	1.000		
19	-0.184	-0.035	-0.171	1.000	
20	0.009	0.038	0.265	-0.148	1.000
21	0.013	0.228	0.085	-0.056	0.045
22	0.086	0.077	0.274	-0.062	0.047
23	-0.132	-0.097	-0.039	0.248	-0.009
24	0.022	0.075	0.225	-0.115	0.257
25	0.020	0.033	0.067	-0.027	0.051
26	-0.034	-0.211	-0.048	0.038	0.003
27	-0.077	-0.041	-0.220	0.089	-0.068
28	0.221	0.041	0.079	-0.205	-0.020
29	-0.026	-0.092	-0.242	0.221	-0.242
30	-0.007	-0.012	-0.104	0.102	-0.069
31	0.034	0.005	0.052	-0.073	0.025
32	-0.006	0.014	0.044	-0.009	0.024
33	0.020	-0.002	-0.040	0.065	-0.013
34	0.009	0.025	0.028	0.019	-0.018
35	0.038	-0.006	0.030	-0.010	-0.023
36	-0.014	-0.010	-0.011	-0.008	0.011
37	0.004	0.027	-0.030	-0.014	0.036
38	0.003	0.023	0.030	-0.052	0.055
39	0.028	0.008	0.013	0.002	-0.016
40	-0.003	0.018	0.013	0.022	-0.009
41	0.000	-0.011	0.013	0.021	0.029
42	0.001	0.008	-0.006	-0.017	-0.035
43	0.002	0.026	-0.030	-0.012	0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
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21	1.000				
22	0.222	1.000			
23	-0.091	-0.166	1.000		
24	0.093	0.242	-0.132	1.000	
25	0.158	0.300	-0.078	0.273	1.000
26	-0.205	-0.075	0.054	-0.007	-0.041
27	-0.052	-0.255	0.089	-0.092	-0.085
28	0.063	0.075	-0.218	0.029	0.016
29	-0.072	-0.135	0.024	-0.204	-0.080
30	-0.110	-0.239	0.189	-0.216	-0.280
31	0.029	0.070	-0.032	0.041	0.055
32	0.002	0.009	0.006	0.032	0.000
33	0.006	-0.001	0.018	-0.018	-0.032
34	0.015	0.008	0.054	-0.020	0.007
35	-0.009	0.030	-0.035	-0.010	-0.011
36	-0.041	0.010	0.014	0.005	0.027
37	0.027	-0.022	-0.002	0.012	0.019
38	-0.004	-0.001	-0.024	0.038	-0.056
39	0.019	0.006	-0.015	-0.023	-0.027
40	0.002	0.022	-0.016	-0.017	0.011
41	-0.027	0.005	0.015	-0.015	0.010
42	0.004	-0.004	0.022	0.019	0.007
43	0.025	-0.024	-0.001	0.010	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.202	1.000			
28	-0.098	-0.246	1.000		
29	0.052	0.284	-0.132	1.000	
30	0.094	0.244	-0.115	0.270	1.000
31	-0.104	-0.326	0.279	-0.287	-0.313
32	0.003	-0.033	0.014	-0.061	-0.018
33	-0.021	0.020	-0.034	0.026	0.018
34	0.029	-0.003	0.003	-0.007	-0.037
35	0.050	-0.005	-0.009	0.005	-0.010
36	-0.019	0.020	0.003	0.030	0.025
37	-0.054	-0.014	0.033	0.027	-0.003
38	0.030	-0.009	0.012	-0.021	0.027
39	0.009	0.002	0.008	0.009	0.024
40	-0.006	-0.035	-0.002	0.030	0.028

41	0.006	0.006	-0.048	-0.017	0.007
42	0.025	0.014	-0.016	0.034	0.016
43	-0.055	-0.011	0.030	0.028	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.046	1.000			
33	-0.011	0.032	1.000		
34	0.020	0.007	0.163	1.000	
35	0.015	0.113	-0.002	0.021	1.000
36	-0.018	-0.003	0.013	-0.009	0.070
37	-0.004	-0.034	0.020	-0.010	0.014
38	0.010	0.190	0.010	0.042	0.114
39	0.002	-0.016	0.005	0.000	0.012
40	0.002	0.020	-0.011	0.040	0.033
41	0.004	0.017	-0.024	0.003	0.044
42	-0.022	0.027	0.023	0.039	-0.012
43	0.000	-0.038	0.022	-0.011	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.132	1.000			
38	-0.008	0.005	1.000		
39	-0.139	-0.082	-0.021	1.000	
40	0.027	0.001	-0.006	-0.005	1.000
41	0.026	0.005	0.005	-0.016	0.128
42	0.025	0.024	0.015	-0.047	0.047
43	-0.140	0.998	0.009	-0.071	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.145	1.000	
43	0.003	0.022	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.007	43
200	1.007	7
300	1.017	35
400	1.008	35
500	1.003	41
600	1.007	41
700	1.003	41
800	1.001	31
900	1.002	39
1000	1.002	23

Deterioration in physical health, bullying interaction

SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142



131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.947	0.947	0.947		
KES15	0.922	0.922	0.922	0.922	
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.915		
PRESS15	0.914	0.915	
DUTIES15	0.915	0.915	0.915

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	1.170	3.272	1.000	87.25%	1.000	1.000	1.000
5073.000	0.239	11.772	5.000	0.08%	1.000	1.000	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 43

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.979	0.070	0.000	0.841	1.119	*
CHOICE15	-0.069	0.025	0.001	-0.117	-0.024	*
DUTIES15	-0.031	0.027	0.125	-0.085	0.021	
PRESS15	-0.032	0.027	0.111	-0.086	0.019	
KES15	0.226	0.045	0.000	0.144	0.311	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.073	*
BULLY15	0.057	0.004	0.000	0.049	0.065	*
PRESS15	0.100	0.007	0.000	0.085	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.120	-0.091	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.011	0.003	0.000	0.005	0.018	*
PRESS15	0.038	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.049	-0.024	*
CHOICE15 WITH						
BULLY15	-0.057	0.007	0.000	-0.072	-0.043	*
PRESS15	-0.087	0.015	0.000	-0.118	-0.059	*
DUTIES15	0.174	0.014	0.000	0.146	0.201	*
BULLY15 WITH						
PRESS15	0.105	0.007	0.000	0.091	0.119	*
DUTIES15	-0.075	0.006	0.000	-0.088	-0.063	*
PRESS15 WITH						
DUTIES15	-0.185	0.014	0.000	-0.213	-0.159	*
Means						
PHY15	0.002	0.007	0.377	-0.011	0.016	
KES15	0.001	0.008	0.447	-0.014	0.017	
CHOICE15	-0.001	0.015	0.467	-0.030	0.029	
PRESS15	0.001	0.014	0.485	-0.025	0.029	
DUTIES15	0.000	0.013	0.484	-0.027	0.024	

Variances						
PHY15	0.233	0.005	0.000	0.225	0.242	*
KES15	0.290	0.006	0.000	0.278	0.302	*
CHOICE15	1.083	0.021	0.000	1.043	1.123	*
BULLY15	0.238	0.005	0.000	0.229	0.247	*
PRESS15	1.001	0.020	0.000	0.963	1.044	*
DUTIES15	0.861	0.018	0.000	0.829	0.897	*
Between Level						
S1	ON					
PRAFAC		-0.076	0.079	0.152	-0.236	0.074
PHYCAT16	ON					
PRAFAC		-0.088	0.031	0.003	-0.152	-0.027 *
BULLY15		0.206	0.611	0.368	-0.955	1.459
PRAFAC	WITH					
BULLY15		0.015	0.027	0.263	-0.038	0.066
Means						
PRAFAC		-0.182	0.155	0.122	-0.488	0.116
BULLY15		1.166	0.022	0.000	1.121	1.211 *
Intercepts						
S1		-0.016	0.086	0.425	-0.195	0.135
Thresholds						
PHYCAT16\$1		1.596	0.714	0.011	0.231	3.069 *
Variances						
PRAFAC		1.346	0.261	0.000	0.958	1.987 *
BULLY15		0.024	0.005	0.000	0.017	0.037 *
Residual Variances						
PHYCAT16		0.012	0.011	0.000	0.000	0.044 *
S1		0.061	0.062	0.000	0.008	0.250 *

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON						
BULLY15	-0.002	0.031	0.475	-0.066	0.054	
PHYCAT16    ON						
PHY15	0.415	0.025	0.000	0.363	0.463	*
CHOICE15	-0.063	0.023	0.002	-0.107	-0.021	*
DUTIES15	-0.026	0.022	0.129	-0.069	0.017	
PRESS15	-0.028	0.023	0.117	-0.075	0.017	
KES15	0.107	0.021	0.000	0.067	0.148	*
KES15        WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.216	0.014	0.000	0.189	0.243	*
PRESS15	0.185	0.013	0.000	0.160	0.211	*
DUTIES15	-0.212	0.014	0.000	-0.240	-0.184	*
PHY15        WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.045	*
BULLY15	0.049	0.014	0.000	0.021	0.075	*
PRESS15	0.080	0.014	0.000	0.053	0.107	*
DUTIES15	-0.081	0.014	0.000	-0.108	-0.053	*
CHOICE15 WITH						
BULLY15	-0.113	0.014	0.000	-0.141	-0.086	*
PRESS15	-0.083	0.014	0.000	-0.112	-0.056	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15    WITH						
PRESS15	0.215	0.014	0.000	0.188	0.240	*
DUTIES15	-0.167	0.014	0.000	-0.194	-0.140	*
PRESS15    WITH						
DUTIES15	-0.199	0.013	0.000	-0.227	-0.173	*
Means						
PHY15	0.004	0.014	0.387	-0.023	0.032	
KES15	0.002	0.014	0.443	-0.025	0.030	

CHOICE15	-0.001	0.014	0.458	-0.029	0.027	
PRESS15	0.001	0.014	0.485	-0.026	0.029	
DUTIES15	-0.001	0.014	0.477	-0.028	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.337	0.299	0.152	-0.789	0.357	
PHYCAT16 ON						
PRAFAC	-0.586	0.184	0.003	-0.909	-0.202	*
BULLY15	0.207	0.470	0.368	-0.741	0.900	
PRAFAC WITH						
BULLY15	0.085	0.138	0.263	-0.208	0.343	
Means						
PRAFAC	-0.159	0.133	0.122	-0.416	0.107	
BULLY15	7.460	0.738	0.000	6.084	8.990	*
Intercepts						
S1	-0.060	0.333	0.425	-0.612	0.659	
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.405	0.231	0.000	0.026	0.858	*
S1	0.874	0.180	0.000	0.369	1.000	*
R-SQUARE						
Within-Level R-Square Averaged Across Clusters						

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.230	0.023	0.000	0.186	0.278

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.595	0.231	0.000	0.142	0.974

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.126	0.180	0.000	0.000	0.631

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15



	0	1	2	3	0
ALPHA					
PRESS15		DUTIES15			
	<hr/> 4	<hr/> 5			
BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	6	7	8	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
BETA					
PRESS15		DUTIES15			
	<hr/>	<hr/>			
PHYCAT16	9	10			
PHY15	0	0			
KES15	0	0			
CHOICE15	0	0			
BULLY15	0	0			
PRESS15	0	0			
DUTIES15	0	0			
PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	PHYCAT16
	<u>43</u>

NU			
	PHYCAT16	PRAFAC	BULLY15
	<u>0</u>	<u>0</u>	<u>0</u>

LAMBDA				
	S1	PHYCAT16	PRAFAC	BULLY15
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
BULLY15	0	0	0	0

THETA			
	PHYCAT16	PRAFAC	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>
PRAFAC	0	0	
BULLY15	0	0	0

ALPHA			
S1	PHYCAT16	PRAFAC	BULLY15
<hr/> 32	<hr/> 0	<hr/> 33	<hr/> 34

	BETA			
	S1	PHYCAT16	PRAFAC	BULLY15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
BULLY15	0	0	0	0

	PSI			
	S1	PHYCAT16	PRAFAC	BULLY15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
PHYCAT16	0	39		
PRAFAC	0	0	40	
BULLY15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	PHYCAT16	PRAFAC	BULLY15
	0.000	0.000	0.000

LAMBDA	S1	PHYCAT16	PRAFAC	BULLY15
PHYCAT16	0.000	1.000	0.000	0.000
PRAFAC	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	1.000

THETA	PHYCAT16	PRAFAC	BULLY15
PHYCAT16	0.000		
PRAFAC	0.000	0.000	
BULLY15	0.000	0.000	0.000

ALPHA	S1	PHYCAT16	PRAFAC	BULLY15
	0.000	0.000	0.020	1.170

BETA

	S1	PHYCAT16	PRAFAC	BULLY15
S1	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000

PSI				
	S1	PHYCAT16	PRAFAC	BULLY15
S1	1.000			
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.504	
BULLY15	0.000	0.000	0.000	0.119

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity

Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.453643D-04				
2	0.990726D-05	0.588463D-04			
3	-0.734531D-05	-0.102417D-04	0.221473D-03		
4	0.544985D-05	0.113882D-04	-0.980580D-05	0.193914D-03	
5	-0.534856D-05	-0.169879D-04	0.270543D-04	-0.367164D-04	0.162568D-03
6	0.115226D-04	-0.224876D-05	0.580019D-04	-0.506562D-05	-0.256628D-04
7	-0.146854D-04	0.297308D-05	0.179960D-06	-0.146421D-04	0.579406D-05
8	-0.670111D-06	-0.681694D-05	0.891241D-05	0.336575D-05	-0.885874D-05
9	0.121944D-04	0.255414D-05	-0.717766D-05	0.147887D-05	0.183298D-06
10	0.456088D-05	-0.612833D-06	0.361368D-06	-0.172334D-04	0.137542D-04
11	0.609011D-06	0.799532D-09	0.543324D-06	-0.120392D-05	0.534082D-06
12	-0.110670D-05	-0.975492D-06	-0.480142D-08	-0.198658D-05	-0.472200D-06
13	0.823585D-06	0.118217D-05	-0.179802D-05	0.691808D-06	-0.216185D-05
14	0.254778D-06	-0.364412D-06	-0.443571D-05	0.171715D-05	0.131221D-05
15	0.104994D-05	-0.184702D-05	-0.896764D-06	-0.500509D-05	0.995484D-06
16	-0.698364D-05	0.242126D-05	0.775775D-05	0.479762D-05	0.718040D-05
17	0.991660D-07	0.412464D-06	-0.376441D-06	-0.204210D-05	0.124422D-05



18	0.613600D-07	0.867181D-06	0.268006D-06	0.122875D-05	-0.603800D-06
19	0.375239D-07	-0.545750D-06	0.438738D-05	-0.174101D-05	0.110162D-05
20	0.902365D-06	0.189051D-05	0.150759D-05	0.912327D-07	-0.109981D-05
21	-0.554424D-06	0.122355D-05	0.248995D-05	-0.198647D-05	0.169662D-05
22	-0.931033D-06	-0.714029D-06	0.301867D-05	0.156711D-06	0.280285D-06
23	-0.259740D-05	-0.300568D-05	0.594502D-05	-0.350519D-05	-0.863708D-05
24	0.105355D-05	0.122479D-05	-0.171773D-05	0.133896D-05	0.288888D-05
25	-0.108287D-05	-0.399325D-06	-0.314188D-05	0.385273D-05	0.297942D-05
26	0.234631D-05	-0.356800D-06	-0.503875D-05	0.335012D-05	0.513735D-06
27	0.198349D-05	-0.277618D-06	0.166610D-05	-0.431484D-05	0.281832D-05
28	-0.370444D-05	0.500516D-05	0.844852D-06	0.897310D-05	-0.210709D-05
29	0.910645D-06	-0.294930D-06	0.145904D-05	-0.565372D-05	0.204260D-05
30	0.138499D-05	0.218426D-05	-0.358972D-05	-0.197663D-05	-0.597519D-05
31	-0.465938D-05	0.888974D-06	-0.156531D-05	0.109841D-04	-0.139267D-04
32	-0.134159D-04	0.426885D-05	-0.535163D-04	0.142197D-04	0.320655D-04
33	-0.276545D-04	-0.431056D-04	0.100306D-03	-0.571354D-04	0.428322D-04
34	-0.547036D-05	0.869966D-05	-0.146791D-04	0.210831D-04	-0.101536D-04
35	0.157581D-04	-0.166391D-05	0.896435D-05	-0.208054D-04	0.162244D-04
36	-0.389525D-05	0.306702D-05	0.185769D-04	-0.228901D-04	0.211545D-04
37	0.555189D-04	0.856440D-04	0.453267D-03	-0.120880D-03	-0.215714D-03
38	-0.174080D-04	0.181496D-04	0.200075D-04	-0.597452D-05	-0.275859D-04
39	-0.693970D-06	-0.448923D-05	0.376173D-06	-0.508726D-05	-0.107661D-05
40	-0.412720D-04	-0.533783D-04	0.116054D-03	0.131717D-03	-0.315644D-04
41	-0.390236D-05	-0.412372D-05	-0.937320D-06	0.211957D-05	-0.304712D-05
42	-0.119007D-05	-0.795156D-06	-0.254130D-05	-0.195130D-05	-0.282662D-05
43	0.684934D-04	0.100403D-03	0.515707D-03	-0.129117D-03	-0.266473D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.491289D-02				
7	-0.302209D-03	0.199785D-02			
8	-0.329159D-05	0.995129D-04	0.619628D-03		
9	0.108514D-04	-0.130816D-03	0.190306D-04	0.714151D-03	
10	0.822018D-04	0.144111D-03	-0.100552D-03	0.109606D-03	0.714531D-03
11	0.510557D-05	0.855036D-05	-0.362663D-05	-0.285820D-06	0.306893D-05
12	-0.911101D-05	0.473810D-05	-0.134921D-06	-0.104971D-05	-0.257753D-05
13	-0.133294D-04	0.364561D-05	-0.403694D-05	0.297869D-06	-0.139797D-05
14	0.111627D-05	-0.187732D-05	0.105734D-04	-0.118608D-05	-0.549531D-05
15	0.335077D-04	-0.640767D-05	-0.201359D-05	-0.259289D-05	0.281133D-05
16	-0.130614D-05	0.437539D-04	0.130215D-04	-0.735040D-05	0.154860D-05
17	-0.380729D-05	0.620547D-07	-0.726409D-06	-0.370473D-06	-0.128406D-05
18	-0.304019D-05	0.596172D-05	-0.895801D-06	0.131702D-05	-0.157600D-05

19	0.257211D-04	-0.886218D-05	-0.847743D-06	0.413142D-05	0.102108D-05
20	-0.943364D-05	0.723739D-05	-0.143796D-05	0.257966D-05	0.287569D-05
21	-0.175209D-04	0.360342D-06	-0.994926D-07	0.558565D-05	-0.354365D-05
22	-0.168888D-04	0.884798D-05	0.170131D-05	0.622724D-07	0.200141D-05
23	0.553480D-04	-0.197652D-04	-0.135250D-05	0.115821D-04	0.300001D-05
24	-0.107821D-04	0.100898D-04	-0.587651D-05	0.452550D-05	0.104164D-04
25	-0.422156D-04	0.245721D-04	-0.517738D-05	-0.105298D-05	0.157916D-04
26	0.124751D-04	0.218937D-05	0.610279D-05	-0.188414D-05	0.451186D-05
27	0.146613D-04	-0.663664D-05	-0.384803D-05	0.292561D-05	0.232987D-05
28	-0.263943D-04	0.731723D-05	0.172116D-04	-0.596798D-05	-0.103766D-04
29	0.891512D-05	-0.158621D-04	0.217540D-06	-0.116305D-05	0.401779D-05
30	0.308903D-04	-0.101989D-04	0.956272D-05	-0.737362D-06	0.396257D-05
31	0.583196D-05	-0.613883D-05	-0.122755D-04	-0.274568D-05	0.392226D-05
32	-0.470228D-03	-0.909853D-04	0.190146D-04	-0.236974D-03	0.242207D-03
33	0.327320D-05	0.217022D-03	0.319244D-04	-0.387070D-04	-0.399023D-04
34	-0.167673D-04	0.410273D-04	0.570446D-05	0.218123D-05	0.259179D-04
35	-0.478331D-03	-0.148082D-03	-0.116773D-03	-0.154860D-04	-0.141208D-04
36	-0.109528D-03	0.588917D-04	-0.975940D-05	-0.772382D-04	0.104574D-04
37	0.342079D-03	0.128454D-03	0.287977D-03	0.640234D-03	-0.129897D-03
38	0.453476D-03	-0.501351D-04	-0.816130D-04	-0.962882D-05	-0.462593D-04
39	0.365265D-04	0.340739D-04	0.160010D-05	0.851616D-05	-0.382697D-06
40	-0.364487D-04	0.527904D-04	0.135157D-03	-0.190160D-03	-0.225522D-04
41	0.993938D-05	-0.368811D-04	0.258524D-04	0.198623D-04	0.108800D-05
42	-0.268936D-05	-0.103969D-04	0.566362D-05	0.165977D-05	-0.491791D-05
43	0.139053D-02	0.241307D-03	0.265846D-03	0.741042D-03	-0.132920D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.209421D-04				
12	0.454806D-05	0.135448D-04			
13	0.558288D-06	0.638712D-05	0.342496D-04		
14	-0.381564D-05	-0.394412D-05	-0.379785D-05	0.514851D-04	
15	0.218662D-06	-0.341566D-05	-0.134103D-04	0.117654D-04	0.666313D-04
16	0.286423D-05	0.160639D-05	0.654585D-05	-0.143524D-04	-0.360834D-04
17	0.631827D-06	0.264489D-05	0.111521D-05	-0.283876D-05	-0.413312D-06
18	-0.225193D-06	0.147786D-05	0.738842D-05	-0.211203D-05	-0.538425D-05
19	-0.122383D-05	-0.154800D-05	-0.278332D-05	0.420902D-05	0.114981D-04
20	0.895175D-06	0.402061D-06	0.185765D-05	0.118167D-06	-0.503665D-06
21	0.319304D-05	0.529319D-05	0.312367D-05	-0.462912D-05	-0.231329D-05
22	0.290045D-05	0.470312D-05	0.123437D-04	-0.402398D-05	-0.987872D-05
23	-0.185161D-05	-0.356117D-05	-0.724959D-05	0.909254D-05	0.211790D-04
24	0.713191D-06	0.184174D-05	0.362780D-05	-0.215150D-05	-0.331798D-05

25	0.378026D-05	0.305347D-05	0.850653D-05	-0.797377D-05	-0.875846D-05
26	-0.422677D-05	-0.608270D-05	-0.271264D-05	0.895977D-05	0.155651D-05
27	-0.185816D-05	-0.481963D-05	-0.150198D-04	0.509963D-05	0.138443D-04
28	0.158208D-05	0.240475D-05	0.605094D-05	-0.858710D-05	-0.258535D-04
29	-0.179378D-05	-0.218598D-05	-0.368546D-05	0.307645D-05	0.398029D-05
30	-0.228403D-05	-0.216823D-05	-0.705929D-05	0.190709D-05	0.565709D-05
31	0.322606D-05	0.316968D-05	0.873581D-05	-0.220620D-05	-0.109545D-04
32	-0.992956D-07	0.101014D-04	0.145246D-04	-0.152653D-04	0.142779D-04
33	0.177678D-04	0.204001D-04	0.120866D-05	0.190302D-04	0.568623D-04
34	0.523634D-06	0.620766D-06	0.524259D-05	-0.456743D-05	-0.650634D-05
35	-0.166094D-04	-0.637871D-05	0.267921D-04	0.217503D-04	-0.597733D-04
36	0.117170D-05	0.519075D-05	0.961761D-06	0.143745D-05	-0.594564D-05
37	-0.483566D-05	-0.374793D-04	-0.253431D-04	-0.750771D-04	0.155070D-03
38	0.745658D-05	-0.343943D-05	-0.132741D-04	-0.553549D-05	-0.570147D-05
39	0.296624D-05	0.775311D-06	0.113961D-05	-0.370630D-05	0.546891D-06
40	0.199759D-04	-0.524903D-05	0.158250D-04	-0.252081D-05	-0.399729D-04
41	-0.380749D-05	-0.858238D-06	-0.233931D-06	-0.341875D-05	0.101994D-05
42	-0.497488D-06	-0.106058D-06	-0.248952D-06	-0.156451D-05	-0.136868D-05
43	0.229025D-05	-0.468471D-04	-0.345649D-04	-0.960935D-04	0.200743D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.420024D-03				
17	-0.665453D-06	0.105030D-04			
18	0.594122D-05	0.229841D-05	0.149960D-04		
19	-0.271473D-04	-0.113824D-05	-0.456726D-05	0.542397D-04	
20	0.101600D-05	0.538288D-06	0.483968D-05	-0.521288D-05	0.224047D-04
21	0.202487D-05	0.503428D-05	0.231598D-05	-0.293362D-05	0.151988D-05
22	0.129921D-04	0.182144D-05	0.788298D-05	-0.327048D-05	0.169128D-05
23	-0.426064D-04	-0.455585D-05	-0.159022D-05	0.249695D-04	0.103053D-06
24	0.397789D-05	0.179593D-05	0.595048D-05	-0.712113D-05	0.888293D-05
25	0.723308D-05	0.188760D-05	0.525687D-05	-0.414012D-05	0.530475D-05
26	-0.443715D-05	-0.417132D-05	-0.109921D-05	0.123230D-05	0.217757D-06
27	-0.108236D-04	-0.928663D-06	-0.612908D-05	0.443220D-05	-0.233135D-05
28	0.620945D-04	0.177352D-05	0.399078D-05	-0.193018D-04	-0.118892D-05
29	-0.365849D-05	-0.202137D-05	-0.622319D-05	0.110056D-04	-0.746635D-05
30	-0.276369D-05	-0.436845D-06	-0.542073D-05	0.101397D-04	-0.449761D-05
31	0.129742D-04	0.306119D-06	0.322620D-05	-0.942398D-05	0.191153D-05
32	-0.601478D-05	0.903435D-05	0.403796D-05	0.685117D-05	0.146398D-05
33	0.751363D-04	-0.203619D-05	-0.232253D-04	0.545887D-04	-0.596723D-05
34	0.822595D-05	0.207458D-05	0.373012D-05	-0.299373D-05	0.119196D-05
35	0.603539D-04	-0.306664D-06	0.115799D-04	0.480609D-05	-0.101046D-04

36	-0.961766D-05	-0.944615D-06	-0.132288D-05	0.459927D-05	-0.654217D-06
37	-0.152166D-03	0.177266D-04	-0.254111D-04	0.559530D-04	0.187482D-04
38	-0.561672D-05	0.275923D-05	0.170198D-05	-0.189384D-04	0.359504D-05
39	0.242657D-05	0.324740D-06	0.428778D-06	0.256488D-06	-0.124552D-05
40	-0.279666D-04	0.154477D-04	0.879564D-05	0.401960D-04	-0.660450D-05
41	0.596529D-05	0.863098D-06	0.343511D-05	-0.348344D-06	0.541630D-05
42	0.204964D-05	0.176285D-06	-0.115442D-06	0.715026D-06	-0.840108D-06
43	-0.195759D-03	0.183921D-04	-0.285215D-04	0.718190D-04	0.108022D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.462091D-04				
22	0.112894D-04	0.561622D-04			
23	-0.104777D-04	-0.189900D-04	0.215249D-03		
24	0.440642D-05	0.122190D-04	-0.127871D-04	0.500239D-04	
25	0.217722D-04	0.457263D-04	-0.303992D-04	0.394468D-04	0.414768D-03
26	-0.878855D-05	-0.353745D-05	0.499212D-05	-0.570888D-07	-0.512596D-05
27	-0.260114D-05	-0.141207D-04	0.899200D-05	-0.415095D-05	-0.128615D-04
28	0.617460D-05	0.789555D-05	-0.409192D-04	0.373392D-05	0.555068D-05
29	-0.324408D-05	-0.673239D-05	0.120311D-05	-0.972338D-05	-0.105942D-04
30	-0.102670D-04	-0.245278D-04	0.402083D-04	-0.199391D-04	-0.779736D-04
31	0.351593D-05	0.938729D-05	-0.101098D-04	0.518014D-05	0.198374D-04
32	0.892735D-05	-0.465445D-06	0.348109D-04	0.131993D-04	0.182363D-04
33	0.579793D-05	-0.146783D-05	0.344403D-04	-0.163092D-04	-0.980696D-04
34	0.172440D-05	0.323224D-05	0.547398D-05	0.338885D-05	0.110557D-04
35	0.574987D-05	0.218833D-04	-0.488648D-05	0.926113D-05	0.365858D-04
36	-0.315332D-05	0.971942D-05	0.154311D-04	-0.184922D-05	0.138968D-04
37	-0.136955D-03	-0.177240D-03	0.175602D-03	0.486803D-05	-0.326259D-03
38	-0.196908D-04	-0.349928D-05	-0.415285D-04	0.105477D-05	-0.976100D-04
39	0.965919D-06	0.470878D-06	-0.159303D-05	-0.241283D-05	-0.298383D-05
40	0.992950D-05	0.412782D-04	-0.778507D-04	-0.573600D-05	0.434025D-04
41	-0.241072D-05	0.162712D-05	0.407171D-05	0.201175D-06	0.524917D-05
42	0.401007D-06	-0.970520D-07	0.864820D-06	-0.452574D-07	0.132490D-05
43	-0.170461D-03	-0.214754D-03	0.225490D-03	-0.522294D-05	-0.392878D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.399510D-04				
27	0.944524D-05	0.547422D-04			
28	-0.864874D-05	-0.245041D-04	0.184878D-03		

29	0.193980D-05	0.132424D-04	-0.122456D-04	0.421854D-04	
30	0.801025D-05	0.246622D-04	-0.243423D-04	0.238073D-04	0.187267D-03
31	-0.115627D-04	-0.427715D-04	0.681545D-04	-0.317785D-04	-0.760161D-04
32	-0.448698D-05	-0.325309D-05	-0.163367D-04	-0.193638D-04	-0.281764D-04
33	-0.202458D-04	0.226881D-04	-0.646958D-04	0.221656D-04	0.361906D-04
34	0.259991D-05	-0.207973D-05	0.794568D-05	-0.518494D-05	-0.730104D-05
35	0.271776D-04	-0.470847D-05	-0.666926D-05	0.421621D-05	-0.591104D-05
36	-0.591394D-05	0.242074D-05	0.143367D-05	0.569041D-05	0.441044D-05
37	-0.305620D-04	-0.123720D-04	-0.119957D-03	0.573871D-04	0.130449D-03
38	0.104491D-04	0.561448D-05	0.885514D-05	-0.131289D-04	0.282007D-04
39	-0.329760D-07	0.906519D-08	-0.550317D-06	0.985963D-06	0.144814D-05
40	-0.130229D-04	-0.684604D-04	0.713910D-05	0.457519D-04	0.102356D-03
41	0.150881D-05	0.242952D-06	-0.747642D-05	-0.703618D-05	0.220611D-05
42	-0.384119D-06	0.896232D-07	0.126955D-05	0.161455D-05	0.948831D-06
43	-0.369844D-04	-0.679960D-05	-0.156399D-03	0.679029D-04	0.156520D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.314754D-03				
32	0.192041D-04	0.738994D-02			
33	-0.302740D-04	-0.163346D-03	0.241271D-01		
34	0.851132D-05	0.334504D-04	0.441421D-03	0.502372D-03	
35	-0.141473D-04	0.161221D-02	0.297445D-03	0.244442D-04	0.623568D-02
36	-0.432132D-05	0.225948D-03	0.113134D-03	-0.331561D-04	0.168302D-03
37	0.230038D-03	-0.217954D-02	0.288580D-02	-0.145984D-03	0.172100D-02
38	0.127366D-04	-0.170279D-02	0.414074D-03	0.193440D-04	-0.694927D-03
39	0.577704D-06	0.359137D-05	0.156286D-04	0.200741D-05	-0.422682D-04
40	0.737277D-05	0.111250D-02	-0.362987D-03	0.286771D-03	0.914604D-03
41	0.466999D-06	0.125562D-04	-0.307039D-04	0.394982D-05	0.107535D-03
42	0.101445D-06	0.297327D-05	0.157016D-04	0.301904D-05	-0.632490D-05
43	0.304050D-03	-0.283881D-02	0.357751D-02	-0.161311D-03	0.162575D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.973632D-03				
37	-0.486678D-02	0.372824D+00			
38	-0.550082D-04	-0.802146D-03	0.387747D-02		
39	-0.560598D-04	-0.473008D-03	-0.347887D-04	0.128259D-03	
40	0.312657D-03	-0.248408D-02	-0.449158D-03	-0.409815D-04	0.679030D-01
41	0.341947D-05	-0.190958D-03	-0.445854D-04	0.287998D-05	0.550590D-03

42	0.409608D-05	-0.880437D-04	0.383949D-05	-0.146557D-05	0.580680D-04
43	-0.585480D-02	0.435362D+00	-0.549995D-03	-0.471040D-03	-0.309823D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.710736D-03		
42	0.566900D-05	0.253128D-04	
43	-0.244445D-03	-0.111242D-03	0.509752D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.192	1.000			
3	-0.073	-0.090	1.000		
4	0.058	0.107	-0.047	1.000	
5	-0.062	-0.174	0.143	-0.207	1.000
6	0.024	-0.004	0.056	-0.005	-0.029
7	-0.049	0.009	0.000	-0.024	0.010
8	-0.004	-0.036	0.024	0.010	-0.028
9	0.068	0.012	-0.018	0.004	0.001
10	0.025	-0.003	0.001	-0.046	0.040
11	0.020	0.000	0.008	-0.019	0.009
12	-0.045	-0.035	0.000	-0.039	-0.010
13	0.021	0.026	-0.021	0.008	-0.029
14	0.005	-0.007	-0.042	0.017	0.014
15	0.019	-0.029	-0.007	-0.044	0.010
16	-0.051	0.015	0.025	0.017	0.027
17	0.005	0.017	-0.008	-0.045	0.030
18	0.002	0.029	0.005	0.023	-0.012
19	0.001	-0.010	0.040	-0.017	0.012
20	0.028	0.052	0.021	0.001	-0.018
21	-0.012	0.023	0.025	-0.021	0.020
22	-0.018	-0.012	0.027	0.002	0.003
23	-0.026	-0.027	0.027	-0.017	-0.046
24	0.022	0.023	-0.016	0.014	0.032
25	-0.008	-0.003	-0.010	0.014	0.011
26	0.055	-0.007	-0.054	0.038	0.006
27	0.040	-0.005	0.015	-0.042	0.030
28	-0.040	0.048	0.004	0.047	-0.012
29	0.021	-0.006	0.015	-0.063	0.025

30	0.015	0.021	-0.018	-0.010	-0.034
31	-0.039	0.007	-0.006	0.044	-0.062
32	-0.023	0.006	-0.042	0.012	0.029
33	-0.026	-0.036	0.043	-0.026	0.022
34	-0.036	0.051	-0.044	0.068	-0.036
35	0.030	-0.003	0.008	-0.019	0.016
36	-0.019	0.013	0.040	-0.053	0.053
37	0.013	0.018	0.050	-0.014	-0.028
38	-0.042	0.038	0.022	-0.007	-0.035
39	-0.009	-0.052	0.002	-0.032	-0.007
40	-0.024	-0.027	0.030	0.036	-0.010
41	-0.022	-0.020	-0.002	0.006	-0.009
42	-0.035	-0.021	-0.034	-0.028	-0.044
43	0.014	0.018	0.049	-0.013	-0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.096	1.000			
8	-0.002	0.089	1.000		
9	0.006	-0.110	0.029	1.000	
10	0.044	0.121	-0.151	0.153	1.000
11	0.016	0.042	-0.032	-0.002	0.025
12	-0.035	0.029	-0.001	-0.011	-0.026
13	-0.032	0.014	-0.028	0.002	-0.009
14	0.002	-0.006	0.059	-0.006	-0.029
15	0.059	-0.018	-0.010	-0.012	0.013
16	-0.001	0.048	0.026	-0.013	0.003
17	-0.017	0.000	-0.009	-0.004	-0.015
18	-0.011	0.034	-0.009	0.013	-0.015
19	0.050	-0.027	-0.005	0.021	0.005
20	-0.028	0.034	-0.012	0.020	0.023
21	-0.037	0.001	-0.001	0.031	-0.020
22	-0.032	0.026	0.009	0.000	0.010
23	0.054	-0.030	-0.004	0.030	0.008
24	-0.022	0.032	-0.033	0.024	0.055
25	-0.030	0.027	-0.010	-0.002	0.029
26	0.028	0.008	0.039	-0.011	0.027
27	0.028	-0.020	-0.021	0.015	0.012
28	-0.028	0.012	0.051	-0.016	-0.029
29	0.020	-0.055	0.001	-0.007	0.023
30	0.032	-0.017	0.028	-0.002	0.011

31	0.005	-0.008	-0.028	-0.006	0.008
32	-0.078	-0.024	0.009	-0.103	0.105
33	0.000	0.031	0.008	-0.009	-0.010
34	-0.011	0.041	0.010	0.004	0.043
35	-0.086	-0.042	-0.059	-0.007	-0.007
36	-0.050	0.042	-0.013	-0.093	0.013
37	0.008	0.005	0.019	0.039	-0.008
38	0.104	-0.018	-0.053	-0.006	-0.028
39	0.046	0.067	0.006	0.028	-0.001
40	-0.002	0.005	0.021	-0.027	-0.003
41	0.005	-0.031	0.039	0.028	0.002
42	-0.008	-0.046	0.045	0.012	-0.037
43	0.028	0.008	0.015	0.039	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.270	1.000			
13	0.021	0.297	1.000		
14	-0.116	-0.149	-0.090	1.000	
15	0.006	-0.114	-0.281	0.201	1.000
16	0.031	0.021	0.055	-0.098	-0.216
17	0.043	0.222	0.059	-0.122	-0.016
18	-0.013	0.104	0.326	-0.076	-0.170
19	-0.036	-0.057	-0.065	0.080	0.191
20	0.041	0.023	0.067	0.003	-0.013
21	0.103	0.212	0.079	-0.095	-0.042
22	0.085	0.171	0.281	-0.075	-0.161
23	-0.028	-0.066	-0.084	0.086	0.177
24	0.022	0.071	0.088	-0.042	-0.057
25	0.041	0.041	0.071	-0.055	-0.053
26	-0.146	-0.261	-0.073	0.198	0.030
27	-0.055	-0.177	-0.347	0.096	0.229
28	0.025	0.048	0.076	-0.088	-0.233
29	-0.060	-0.091	-0.097	0.066	0.075
30	-0.036	-0.043	-0.088	0.019	0.051
31	0.040	0.049	0.084	-0.017	-0.076
32	0.000	0.032	0.029	-0.025	0.020
33	0.025	0.036	0.001	0.017	0.045
34	0.005	0.008	0.040	-0.028	-0.036
35	-0.046	-0.022	0.058	0.038	-0.093
36	0.008	0.045	0.005	0.006	-0.023



37	-0.002	-0.017	-0.007	-0.017	0.031
38	0.026	-0.015	-0.036	-0.012	-0.011
39	0.057	0.019	0.017	-0.046	0.006
40	0.017	-0.005	0.010	-0.001	-0.019
41	-0.031	-0.009	-0.001	-0.018	0.005
42	-0.022	-0.006	-0.008	-0.043	-0.033
43	0.001	-0.018	-0.008	-0.019	0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	-0.010	1.000			
18	0.075	0.183	1.000		
19	-0.180	-0.048	-0.160	1.000	
20	0.010	0.035	0.264	-0.150	1.000
21	0.015	0.229	0.088	-0.059	0.047
22	0.085	0.075	0.272	-0.059	0.048
23	-0.142	-0.096	-0.028	0.231	0.001
24	0.027	0.078	0.217	-0.137	0.265
25	0.017	0.029	0.067	-0.028	0.055
26	-0.034	-0.204	-0.045	0.026	0.007
27	-0.071	-0.039	-0.214	0.081	-0.067
28	0.223	0.040	0.076	-0.193	-0.018
29	-0.027	-0.096	-0.247	0.230	-0.243
30	-0.010	-0.010	-0.102	0.101	-0.069
31	0.036	0.005	0.047	-0.072	0.023
32	-0.003	0.032	0.012	0.011	0.004
33	0.024	-0.004	-0.039	0.048	-0.008
34	0.018	0.029	0.043	-0.018	0.011
35	0.037	-0.001	0.038	0.008	-0.027
36	-0.015	-0.009	-0.011	0.020	-0.004
37	-0.012	0.009	-0.011	0.012	0.006
38	-0.004	0.014	0.007	-0.041	0.012
39	0.010	0.009	0.010	0.003	-0.023
40	-0.005	0.018	0.009	0.021	-0.005
41	0.011	0.010	0.033	-0.002	0.043
42	0.020	0.011	-0.006	0.019	-0.035
43	-0.013	0.008	-0.010	0.014	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
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21	1.000				
22	0.222	1.000			
23	-0.105	-0.173	1.000		
24	0.092	0.231	-0.123	1.000	
25	0.157	0.300	-0.102	0.274	1.000
26	-0.205	-0.075	0.054	-0.001	-0.040
27	-0.052	-0.255	0.083	-0.079	-0.085
28	0.067	0.077	-0.205	0.039	0.020
29	-0.073	-0.138	0.013	-0.212	-0.080
30	-0.110	-0.239	0.200	-0.206	-0.280
31	0.029	0.071	-0.039	0.041	0.055
32	0.015	-0.001	0.028	0.022	0.010
33	0.005	-0.001	0.015	-0.015	-0.031
34	0.011	0.019	0.017	0.021	0.024
35	0.011	0.037	-0.004	0.017	0.023
36	-0.015	0.042	0.034	-0.008	0.022
37	-0.033	-0.039	0.020	0.001	-0.026
38	-0.047	-0.007	-0.045	0.002	-0.077
39	0.013	0.006	-0.010	-0.030	-0.013
40	0.006	0.021	-0.020	-0.003	0.008
41	-0.013	0.008	0.010	0.001	0.010
42	0.012	-0.003	0.012	-0.001	0.013
43	-0.035	-0.040	0.022	-0.001	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.202	1.000			
28	-0.101	-0.244	1.000		
29	0.047	0.276	-0.139	1.000	
30	0.093	0.244	-0.131	0.268	1.000
31	-0.103	-0.326	0.283	-0.276	-0.313
32	-0.008	-0.005	-0.014	-0.035	-0.024
33	-0.021	0.020	-0.031	0.022	0.017
34	0.018	-0.013	0.026	-0.036	-0.024
35	0.054	-0.008	-0.006	0.008	-0.005
36	-0.030	0.010	0.003	0.028	0.010
37	-0.008	-0.003	-0.014	0.014	0.016
38	0.027	0.012	0.010	-0.032	0.033
39	0.000	0.000	-0.004	0.013	0.009
40	-0.008	-0.036	0.002	0.027	0.029

41	0.009	0.001	-0.021	-0.041	0.006
42	-0.012	0.002	0.019	0.049	0.014
43	-0.008	-0.001	-0.016	0.015	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.013	1.000			
33	-0.011	-0.012	1.000		
34	0.021	0.017	0.127	1.000	
35	-0.010	0.237	0.024	0.014	1.000
36	-0.008	0.084	0.023	-0.047	0.068
37	0.021	-0.042	0.030	-0.011	0.036
38	0.012	-0.318	0.043	0.014	-0.141
39	0.003	0.004	0.009	0.008	-0.047
40	0.002	0.050	-0.009	0.049	0.044
41	0.001	0.005	-0.007	0.007	0.051
42	0.001	0.007	0.020	0.027	-0.016
43	0.024	-0.046	0.032	-0.010	0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.255	1.000			
38	-0.028	-0.021	1.000		
39	-0.159	-0.068	-0.049	1.000	
40	0.038	-0.016	-0.028	-0.014	1.000
41	0.004	-0.012	-0.027	0.010	0.079
42	0.026	-0.029	0.012	-0.026	0.044
43	-0.263	0.999	-0.012	-0.058	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.042	1.000	
43	-0.013	-0.031	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	38
200	1.008	7
300	1.001	33
400	1.004	35
500	1.004	41
600	1.008	41
700	1.003	41
800	1.002	41
900	1.003	41
1000	1.002	23

Deterioration in physical health, time pressure interaction

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns	8
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## PROPORTION OF DATA PRESENT

	Covariance		Coverage			
	PHYCAT16		PRAFAC		PHY15	KES15 CHOICE15
PHYCAT16	1.000					
PRAFAC	1.000		1.000			
PHY15	0.947		0.947		0.947	
KES15	0.922		0.922		0.922	0.922
CHOICE15	0.915		0.915		0.915	0.915
BULLY15	0.915		0.915		0.915	0.915
PRESS15	0.915		0.915		0.915	0.915
DUTIES15	0.915		0.915		0.915	0.915

	Covariance	Coverage	
	BULLY15	PRESS15	DUTIES15
BULLY15	0.915		
PRESS15	0.914	0.915	
DUTIES15	0.915	0.915	0.915

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	2.462	0.252	1.000	19.10%	2.000	2.000	2.000
5074.000	1.001	-0.371	5.000	2.76%	3.000	3.000	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 43

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.976	0.070	0.000	0.834	1.121	*
CHOICE15	-0.069	0.025	0.002	-0.118	-0.023	*
DUTIES15	-0.030	0.027	0.131	-0.083	0.020	
BULLY15	0.030	0.048	0.269	-0.060	0.123	
KES15	0.224	0.045	0.000	0.140	0.307	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.073	*
BULLY15	0.057	0.004	0.000	0.050	0.066	*
PRESS15	0.099	0.007	0.000	0.085	0.114	*
DUTIES15	-0.106	0.007	0.000	-0.120	-0.091	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.051	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.036	0.007	0.000	0.023	0.049	*
DUTIES15	-0.036	0.006	0.000	-0.049	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15	-0.075	0.015	0.000	-0.106	-0.048	*
DUTIES15	0.174	0.014	0.000	0.146	0.201	*
BULLY15 WITH						
PRESS15	0.101	0.007	0.000	0.088	0.115	*
DUTIES15	-0.078	0.006	0.000	-0.090	-0.065	*
PRESS15 WITH						
DUTIES15	-0.175	0.014	0.000	-0.203	-0.150	*
Means						
PHY15	0.002	0.007	0.377	-0.011	0.016	
KES15	0.001	0.008	0.443	-0.014	0.017	
CHOICE15	-0.001	0.015	0.463	-0.030	0.029	
BULLY15	0.000	0.007	0.479	-0.012	0.014	
DUTIES15	-0.001	0.013	0.479	-0.027	0.024	



Variances						
PHY15	0.233	0.005	0.000	0.225	0.242	*
KES15	0.290	0.006	0.000	0.278	0.302	*
CHOICE15	1.083	0.020	0.000	1.043	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.248	*
PRESS15	0.953	0.020	0.000	0.917	0.994	*
DUTIES15	0.861	0.018	0.000	0.829	0.897	*
Between Level						
S1	ON					
PRAFAC		-0.003	0.029	0.457	-0.059	0.052
PHYCAT16	ON					
PRAFAC		-0.082	0.031	0.005	-0.144	-0.020 *
PRESS15		-0.151	0.160	0.163	-0.484	0.153
PRAFAC	WITH					
PRESS15		0.004	0.050	0.469	-0.104	0.095
Means						
PRAFAC		-0.182	0.155	0.122	-0.486	0.118
PRESS15		2.386	0.041	0.000	2.302	2.465 *
Intercepts						
S1		-0.027	0.032	0.199	-0.087	0.036
Thresholds						
PHYCAT16\$1		0.976	0.389	0.009	0.187	1.734 *
Variances						
PRAFAC		1.342	0.261	0.000	0.958	1.980 *
PRESS15		0.078	0.018	0.000	0.051	0.124 *
Residual Variances						
PHYCAT16		0.014	0.012	0.000	0.001	0.045 *
S1		0.004	0.006	0.000	0.001	0.021 *

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON						
PRESS15	-0.023	0.025	0.186	-0.072	0.026	
PHYCAT16 ON						
PHY15	0.416	0.025	0.000	0.364	0.465	*
CHOICE15	-0.064	0.023	0.002	-0.108	-0.020	*
DUTIES15	-0.025	0.022	0.132	-0.068	0.018	
BULLY15	0.013	0.021	0.264	-0.027	0.055	
KES15	0.106	0.021	0.000	0.067	0.146	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.014	0.000	0.191	0.245	*
PRESS15	0.189	0.013	0.000	0.163	0.215	*
DUTIES15	-0.212	0.014	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.045	*
BULLY15	0.050	0.014	0.000	0.022	0.076	*
PRESS15	0.076	0.014	0.000	0.049	0.105	*
DUTIES15	-0.081	0.014	0.000	-0.108	-0.053	*
CHOICE15 WITH						
BULLY15	-0.114	0.014	0.000	-0.141	-0.088	*
PRESS15	-0.073	0.014	0.000	-0.103	-0.046	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.213	0.013	0.000	0.186	0.238	*
DUTIES15	-0.171	0.013	0.000	-0.197	-0.145	*
PRESS15 WITH						
DUTIES15	-0.194	0.014	0.000	-0.221	-0.167	*
Means						
PHY15	0.004	0.014	0.385	-0.023	0.032	
KES15	0.002	0.014	0.436	-0.025	0.030	

CHOICE15	-0.001	0.014	0.456	-0.029	0.027	
BULLY15	0.001	0.014	0.475	-0.026	0.028	
DUTIES15	-0.001	0.014	0.474	-0.028	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.050	0.455	0.457	-0.841	0.779	
PHYCAT16 ON						
PRAFAC	-0.593	0.190	0.005	-0.909	-0.172	*
PRESS15	-0.277	0.261	0.163	-0.723	0.310	
PRAFAC WITH						
PRESS15	0.012	0.143	0.469	-0.283	0.283	
Means						
PRAFAC	-0.159	0.133	0.122	-0.416	0.107	
PRESS15	8.525	0.929	0.000	6.823	10.564	*
Intercepts						
S1	-0.367	0.530	0.199	-1.673	0.525	
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.510	0.213	0.000	0.066	0.900	*
S1	0.869	0.223	0.000	0.212	1.000	*
R-SQUARE						
Within-Level R-Square Averaged Across Clusters						

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.221	0.022	0.000	0.180	0.266

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.490	0.213	0.000	0.100	0.934

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.131	0.223	0.000	0.000	0.788

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15

	0	1	2	3	4
ALPHA					
PRESS15		DUTIES15			
	<hr/> 0	<hr/> 5			
BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	6	7	8	9
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
BETA					
PRESS15		DUTIES15			
	<hr/>	<hr/>			
PHYCAT16	0	10			
PHY15	0	0			
KES15	0	0			
CHOICE15	0	0			
BULLY15	0	0			
PRESS15	0	0			
DUTIES15	0	0			
PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>43</u>

NU			
PHYCAT16	PRAFAC	PRESS15	
<u>0</u>	<u>0</u>	<u>0</u>	

	LAMBDA			
	S1	PHYCAT16	PRAFAC	PRESS15
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
PRESS15	0	0	0	0

	THETA		
	PHYCAT16	PRAFAC	PRESS15
PHYCAT16	<u>0</u>	<u></u>	<u></u>
PRAFAC	0	0	
PRESS15	0	0	0

	ALPHA			
	S1	PHYCAT16	PRAFAC	PRESS15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

	BETA			
	S1	PHYCAT16	PRAFAC	PRESS15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
PRESS15	0	0	0	0

	PSI			
	S1	PHYCAT16	PRAFAC	PRESS15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
PHYCAT16	0	39		
PRAFAC	0	0	40	
PRESS15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>



PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	PHYCAT16	PRAFAC	PRESS15
	0.000	0.000	0.000

LAMBDA	S1	PHYCAT16	PRAFAC	PRESS15
PHYCAT16	0.000	1.000	0.000	0.000
PRAFAC	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000

THETA	PHYCAT16	PRAFAC	PRESS15
PHYCAT16	0.000		
PRAFAC	0.000	0.000	
PRESS15	0.000	0.000	0.000

ALPHA	S1	PHYCAT16	PRAFAC	PRESS15
	0.000	0.000	0.020	2.462

BETA

	S1	PHYCAT16	PRAFAC	PRESS15
S1	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000

PSI				
	S1	PHYCAT16	PRAFAC	PRESS15
S1	1.000			
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.504	
PRESS15	0.000	0.000	0.000	0.501

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity

Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.455095D-04				
2	0.101841D-04	0.594211D-04			
3	-0.760538D-05	-0.103382D-04	0.220478D-03		
4	0.230080D-05	0.813749D-05	-0.807290D-05	0.456017D-04	
5	-0.553630D-05	-0.173984D-04	0.273358D-04	-0.148092D-04	0.162051D-03
6	0.140310D-04	0.602726D-06	0.676273D-04	0.154194D-05	-0.250708D-04
7	-0.151593D-04	0.487989D-05	0.680633D-06	-0.440649D-05	0.344835D-05
8	-0.501274D-06	-0.719942D-05	0.831321D-05	-0.112343D-05	-0.877262D-05
9	0.107750D-04	-0.649422D-05	-0.301063D-04	-0.233610D-05	0.552976D-05
10	0.338512D-05	-0.789700D-06	-0.741604D-06	-0.633457D-05	0.130308D-04
11	0.570804D-06	-0.797351D-07	0.652947D-06	-0.714332D-06	0.661136D-06
12	-0.108869D-05	-0.873420D-06	-0.933515D-07	-0.430554D-06	-0.678779D-06
13	0.863792D-06	0.129612D-05	-0.188597D-05	0.544664D-06	-0.234407D-05
14	0.253895D-06	-0.146592D-06	-0.457787D-05	0.117353D-05	0.108379D-05
15	0.105144D-05	-0.186688D-05	-0.728553D-06	-0.266940D-05	0.882043D-06
16	-0.680088D-05	0.213024D-05	0.844417D-05	0.276550D-05	0.659269D-05
17	0.367485D-07	0.469364D-06	-0.271461D-06	-0.100576D-05	0.113143D-05

18	0.128956D-06	0.108067D-05	0.261696D-06	0.595437D-06	-0.713279D-06
19	-0.170978D-06	-0.112083D-05	0.426082D-05	-0.131950D-05	0.184680D-05
20	0.849572D-06	0.219820D-05	0.146142D-05	-0.416728D-06	-0.126227D-05
21	-0.507358D-06	0.132683D-05	0.173162D-05	-0.799014D-06	0.139215D-05
22	-0.966008D-06	-0.685695D-06	0.306287D-05	0.476574D-06	-0.145993D-06
23	-0.296395D-05	-0.271031D-05	0.671813D-05	-0.458724D-05	-0.768668D-05
24	0.117724D-05	0.106668D-05	-0.110677D-05	0.136866D-06	0.247133D-05
25	-0.349673D-06	-0.297861D-06	-0.274141D-05	0.426498D-05	0.220457D-05
26	0.240695D-05	-0.473721D-06	-0.469341D-05	0.127453D-05	0.696083D-06
27	0.200108D-05	-0.139935D-06	0.136552D-05	-0.167299D-05	0.279261D-05
28	-0.334726D-05	0.521690D-05	0.918439D-06	0.626981D-05	-0.303754D-05
29	0.990421D-06	-0.403472D-06	0.129278D-05	-0.228070D-05	0.260313D-05
30	0.114839D-05	0.215193D-05	-0.329754D-05	-0.370203D-06	-0.644119D-05
31	-0.455721D-05	0.102153D-05	-0.136163D-05	0.636668D-05	-0.140404D-04
32	-0.472997D-05	0.545055D-05	-0.117160D-04	0.111157D-05	0.443568D-05
33	-0.269314D-04	-0.428219D-04	0.103448D-03	-0.203470D-04	0.395749D-04
34	-0.469442D-05	0.158457D-04	-0.231181D-04	0.221367D-04	-0.340679D-04
35	0.530888D-05	-0.168257D-05	0.168122D-04	0.260920D-05	0.146774D-05
36	-0.447043D-05	0.734879D-05	0.220219D-04	-0.443992D-05	0.184831D-04
37	0.106690D-05	-0.250127D-04	0.911720D-06	0.328397D-04	0.330037D-04
38	-0.203760D-05	0.396980D-06	0.192781D-05	-0.326052D-06	0.473778D-06
39	0.143061D-06	-0.369087D-05	0.114837D-05	-0.212065D-05	-0.224276D-05
40	-0.360944D-04	-0.521236D-04	0.112400D-03	0.509314D-04	-0.326711D-04
41	-0.152549D-05	-0.565084D-05	-0.409406D-05	0.164971D-04	-0.879058D-05
42	-0.360684D-05	-0.472993D-05	-0.315958D-05	-0.688258D-05	-0.866270D-05
43	0.619266D-05	-0.631095D-04	0.278163D-05	0.780143D-04	0.765098D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.487879D-02				
7	-0.292927D-03	0.198095D-02			
8	0.104512D-04	0.972718D-04	0.614314D-03		
9	0.122161D-03	-0.327166D-03	0.107537D-03	0.234472D-02	
10	0.674757D-04	0.151026D-03	-0.103262D-03	0.114454D-03	0.712163D-03
11	0.446508D-05	0.103485D-04	-0.378324D-05	-0.684250D-05	0.288187D-05
12	-0.834923D-05	0.524612D-05	-0.762861D-06	-0.309073D-05	-0.212350D-05
13	-0.110593D-04	0.462747D-05	-0.515933D-05	-0.107482D-04	-0.135370D-05
14	0.315766D-05	-0.202721D-05	0.111877D-04	0.399453D-05	-0.565738D-05
15	0.306696D-04	-0.728881D-05	-0.120854D-05	0.124590D-04	0.272718D-05
16	0.252822D-05	0.437095D-04	0.130765D-04	0.756389D-05	0.499301D-05
17	-0.348952D-05	0.925993D-07	-0.974282D-06	-0.141730D-06	-0.108992D-05
18	-0.418565D-05	0.587121D-05	-0.132404D-05	-0.176406D-05	-0.117766D-05

19	0.229313D-04	-0.106492D-04	-0.837618D-06	0.752239D-05	0.684205D-06
20	-0.973491D-05	0.637081D-05	-0.207200D-05	-0.693150D-06	0.225939D-05
21	-0.192340D-04	0.195227D-06	-0.424818D-06	0.896592D-05	-0.418443D-05
22	-0.127342D-04	0.901976D-05	0.881013D-06	0.414283D-05	0.175532D-05
23	0.419069D-04	-0.209814D-04	-0.465736D-05	0.259100D-04	0.640126D-06
24	-0.470848D-05	0.100321D-04	-0.665629D-05	0.384858D-05	0.107290D-04
25	-0.461547D-04	0.259968D-04	-0.507863D-05	0.315423D-04	0.195363D-04
26	0.146095D-04	0.748006D-06	0.661048D-05	0.309791D-05	0.397480D-05
27	0.162306D-04	-0.619355D-05	-0.362853D-05	-0.248159D-07	0.991451D-06
28	-0.266213D-04	0.826446D-05	0.168234D-04	0.481655D-05	-0.788767D-05
29	0.864325D-05	-0.161931D-04	0.132408D-05	0.448510D-05	0.364160D-05
30	0.332408D-04	-0.115614D-04	0.104801D-04	-0.759644D-05	0.217867D-06
31	0.237368D-05	-0.154963D-05	-0.128275D-04	-0.732580D-05	0.436818D-05
32	-0.142885D-03	-0.807494D-04	-0.333603D-04	-0.255388D-03	0.124881D-03
33	0.360453D-04	0.168094D-03	0.353425D-04	-0.108930D-03	-0.177935D-04
34	-0.967655D-06	0.828604D-04	0.118163D-04	-0.754571D-04	0.292157D-04
35	-0.108590D-03	-0.318377D-04	-0.249288D-04	0.347264D-06	0.263255D-05
36	-0.694836D-04	0.590980D-04	-0.131745D-04	-0.121524D-03	0.245909D-04
37	-0.366685D-03	0.710742D-04	0.499919D-04	0.922190D-05	0.784916D-04
38	0.131160D-04	-0.478586D-05	-0.144046D-05	-0.142185D-04	-0.264380D-05
39	0.286907D-04	0.309614D-04	0.540006D-05	0.149363D-04	0.840253D-07
40	-0.362933D-04	0.497556D-04	0.965644D-04	0.125777D-04	-0.379837D-04
41	0.758480D-05	-0.433662D-04	0.534485D-04	0.215773D-04	0.173064D-04
42	0.266709D-04	-0.351846D-04	0.144190D-04	-0.323773D-05	-0.678261D-05
43	0.838527D-04	0.261445D-03	0.592216D-04	0.391820D-04	0.215163D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.209618D-04				
12	0.454209D-05	0.135658D-04			
13	0.564636D-06	0.642395D-05	0.343119D-04		
14	-0.381829D-05	-0.394174D-05	-0.378614D-05	0.514711D-04	
15	0.232381D-06	-0.342127D-05	-0.134729D-04	0.117186D-04	0.665279D-04
16	0.285540D-05	0.151980D-05	0.653046D-05	-0.142662D-04	-0.360198D-04
17	0.678522D-06	0.269331D-05	0.103347D-05	-0.272544D-05	-0.395350D-06
18	-0.157018D-06	0.150621D-05	0.740224D-05	-0.212583D-05	-0.539779D-05
19	-0.114913D-05	-0.140199D-05	-0.261784D-05	0.384607D-05	0.114533D-04
20	0.822799D-06	0.376109D-06	0.178290D-05	0.260949D-06	-0.660908D-06
21	0.295967D-05	0.521721D-05	0.327585D-05	-0.428876D-05	-0.218771D-05
22	0.272104D-05	0.452193D-05	0.123393D-04	-0.385862D-05	-0.912471D-05
23	-0.169626D-05	-0.361560D-05	-0.743917D-05	0.913338D-05	0.207637D-04
24	0.598549D-06	0.168975D-05	0.370073D-05	-0.195379D-05	-0.298122D-05

25	0.374319D-05	0.281730D-05	0.862781D-05	-0.870541D-05	-0.758569D-05
26	-0.424559D-05	-0.609065D-05	-0.270691D-05	0.896711D-05	0.154326D-05
27	-0.184316D-05	-0.482993D-05	-0.150554D-04	0.508081D-05	0.138770D-04
28	0.159913D-05	0.241457D-05	0.604080D-05	-0.849397D-05	-0.258429D-04
29	-0.175697D-05	-0.216925D-05	-0.352035D-05	0.274930D-05	0.402512D-05
30	-0.224047D-05	-0.198338D-05	-0.737935D-05	0.257326D-05	0.542173D-05
31	0.314497D-05	0.316124D-05	0.872316D-05	-0.218564D-05	-0.109811D-04
32	0.192621D-05	0.479526D-05	0.973288D-05	-0.911140D-05	-0.165052D-05
33	0.181496D-04	0.208113D-04	0.172065D-05	0.184183D-04	0.561846D-04
34	-0.108903D-05	0.861104D-06	0.102199D-04	-0.773776D-05	-0.106659D-04
35	-0.755601D-05	-0.526536D-05	0.914878D-05	0.491460D-05	-0.265721D-04
36	-0.676488D-07	0.422412D-05	-0.345444D-06	-0.168790D-06	-0.897841D-05
37	0.470542D-05	0.539137D-06	-0.168963D-04	0.883863D-05	0.324804D-04
38	0.765596D-06	0.226885D-06	0.161706D-06	0.691408D-06	-0.621751D-06
39	0.294136D-05	0.785999D-06	0.670583D-06	-0.233560D-05	0.267251D-05
40	0.258790D-04	-0.104897D-05	0.197557D-04	0.419702D-07	-0.435221D-04
41	-0.537300D-05	-0.443031D-05	-0.503047D-05	-0.545278D-05	0.419072D-05
42	-0.162339D-05	-0.320128D-06	-0.135328D-05	-0.274913D-05	-0.171940D-05
43	0.190915D-04	-0.226909D-05	-0.450201D-04	0.189536D-04	0.994175D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.419405D-03				
17	-0.565310D-06	0.104499D-04			
18	0.579831D-05	0.224605D-05	0.148575D-04		
19	-0.275646D-04	-0.899787D-06	-0.459673D-05	0.515531D-04	
20	0.908861D-06	0.563375D-06	0.482646D-05	-0.509711D-05	0.222890D-04
21	0.155656D-05	0.485309D-05	0.231260D-05	-0.243696D-05	0.145145D-05
22	0.132249D-04	0.170923D-05	0.762515D-05	-0.294248D-05	0.168547D-05
23	-0.368939D-04	-0.473503D-05	-0.190872D-05	0.246555D-04	-0.239312D-06
24	0.304004D-05	0.154366D-05	0.588678D-05	-0.569025D-05	0.811124D-05
25	0.781961D-05	0.193611D-05	0.496700D-05	-0.326060D-05	0.439760D-05
26	-0.433914D-05	-0.435471D-05	-0.118365D-05	0.158402D-05	0.120411D-06
27	-0.108869D-04	-0.965050D-06	-0.626402D-05	0.458802D-05	-0.235941D-05
28	0.622795D-04	0.181139D-05	0.404201D-05	-0.192280D-04	-0.119222D-05
29	-0.331262D-05	-0.192510D-05	-0.597322D-05	0.102384D-04	-0.732597D-05
30	-0.405431D-05	-0.548173D-06	-0.538849D-05	0.995892D-05	-0.436840D-05
31	0.132460D-04	0.243898D-06	0.349986D-05	-0.924715D-05	0.209635D-05
32	-0.353292D-05	0.280535D-05	0.689715D-05	0.406430D-05	0.304605D-05
33	0.770628D-04	-0.146391D-05	-0.240372D-04	0.672187D-04	-0.872678D-05
34	0.159965D-04	0.349503D-05	0.602812D-05	0.149131D-05	-0.251359D-05
35	0.238139D-04	0.702965D-06	0.345504D-05	0.153625D-05	-0.315815D-05



36	-0.805312D-05	-0.151537D-05	-0.213828D-05	-0.878964D-06	0.216167D-05
37	-0.607594D-05	0.727671D-05	0.387569D-05	-0.232833D-04	0.406185D-04
38	0.388521D-05	0.390937D-06	0.761789D-06	-0.161055D-05	0.123630D-05
39	0.802263D-05	0.961112D-07	0.130234D-05	0.115738D-06	-0.283904D-06
40	-0.265607D-04	0.143671D-04	0.928505D-05	0.401492D-04	-0.181822D-04
41	0.355204D-05	-0.185278D-06	0.392029D-05	0.790877D-05	0.759246D-05
42	0.428121D-05	0.511290D-06	-0.111343D-05	-0.519711D-06	-0.305350D-05
43	-0.325308D-04	0.161446D-04	0.985512D-05	-0.464255D-04	0.880601D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.445590D-04				
22	0.110361D-04	0.545198D-04			
23	-0.103408D-04	-0.180627D-04	0.210846D-03		
24	0.433670D-05	0.124068D-04	-0.140209D-04	0.462031D-04	
25	0.205545D-04	0.450320D-04	-0.252451D-04	0.370278D-04	0.385468D-03
26	-0.828465D-05	-0.325164D-05	0.383504D-05	-0.630142D-07	-0.426650D-05
27	-0.249062D-05	-0.135748D-04	0.799013D-05	-0.445574D-05	-0.120187D-04
28	0.599480D-05	0.709151D-05	-0.379032D-04	0.268194D-05	0.395680D-05
29	-0.309964D-05	-0.631787D-05	0.189483D-05	-0.867354D-05	-0.955381D-05
30	-0.101154D-04	-0.249525D-04	0.389772D-04	-0.208432D-04	-0.751197D-04
31	0.369121D-05	0.872237D-05	-0.914402D-05	0.494887D-05	0.182479D-04
32	0.198108D-05	-0.170344D-05	0.231955D-05	0.468910D-05	-0.146503D-04
33	0.444514D-05	-0.197704D-05	0.162005D-04	-0.146684D-04	-0.103628D-03
34	0.989099D-05	0.130304D-04	-0.805480D-05	0.531390D-06	0.389657D-04
35	0.137829D-05	0.537931D-05	-0.100772D-04	-0.656601D-05	-0.597430D-05
36	-0.776590D-05	0.280292D-05	0.739487D-05	-0.110749D-05	0.145171D-04
37	0.452507D-05	-0.225795D-04	0.136620D-04	0.243147D-05	0.542250D-04
38	-0.292307D-08	0.732130D-06	-0.191578D-05	0.607868D-06	-0.593174D-05
39	0.498554D-06	-0.189835D-06	0.902472D-07	-0.129474D-05	-0.738848D-05
40	0.153141D-04	0.404124D-04	-0.910400D-04	-0.213372D-04	0.691876D-04
41	-0.938824D-05	0.646341D-05	-0.590283D-05	-0.313062D-05	0.282388D-04
42	-0.396569D-05	-0.146565D-05	0.175085D-05	-0.283052D-05	-0.126847D-04
43	0.146618D-05	-0.625097D-04	0.552047D-04	-0.315669D-05	0.116275D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.399634D-04				
27	0.946214D-05	0.547761D-04			
28	-0.862315D-05	-0.245136D-04	0.184927D-03		

29	0.209229D-05	0.134858D-04	-0.116967D-04	0.411529D-04	
30	0.721614D-05	0.239043D-04	-0.224555D-04	0.230001D-04	0.184264D-03
31	-0.115770D-04	-0.427960D-04	0.680902D-04	-0.326398D-04	-0.721392D-04
32	0.799853D-06	-0.359748D-05	0.453986D-05	-0.105227D-04	-0.289322D-05
33	-0.199065D-04	0.222206D-04	-0.643676D-04	0.251336D-04	0.385739D-04
34	0.507311D-05	-0.472711D-05	0.171487D-04	-0.408024D-05	-0.314103D-04
35	0.107829D-04	0.190070D-05	-0.106739D-05	-0.197804D-06	-0.258619D-05
36	-0.333331D-05	0.347099D-05	0.552863D-05	0.637499D-05	0.821294D-05
37	-0.622476D-04	-0.189081D-04	-0.281113D-04	0.268479D-04	0.271868D-04
38	0.544437D-06	-0.149166D-05	0.133767D-05	-0.170578D-05	0.261433D-05
39	0.752798D-06	0.295834D-06	0.324006D-06	0.101925D-05	0.424992D-05
40	-0.144855D-04	-0.722333D-04	0.227880D-04	0.549067D-04	0.772471D-04
41	0.398180D-05	0.286724D-05	-0.219495D-04	-0.633752D-05	-0.290834D-05
42	-0.650891D-06	-0.243681D-05	-0.177178D-05	0.320725D-05	0.124435D-04
43	-0.152350D-03	-0.327825D-04	-0.952660D-04	0.666549D-04	0.740380D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.314756D-03				
32	0.176412D-04	0.100757D-02			
33	-0.298678D-04	0.126400D-03	0.241260D-01		
34	0.153598D-04	-0.424748D-06	0.333551D-03	0.166959D-02	
35	0.580049D-05	0.671996D-04	0.371530D-04	0.775647D-05	0.865719D-03
36	-0.693897D-05	0.274238D-04	0.990872D-04	-0.395727D-04	0.392998D-04
37	0.334732D-04	-0.259892D-03	-0.893845D-03	-0.304086D-03	-0.912265D-04
38	0.419673D-05	0.526575D-05	0.279568D-04	-0.182213D-07	0.346676D-05
39	0.138189D-05	0.254995D-05	0.207592D-04	0.645541D-05	-0.131101D-04
40	0.107742D-05	0.105261D-03	-0.366362D-03	0.540125D-03	0.345330D-03
41	0.704833D-06	0.855538D-05	-0.192912D-03	0.134441D-04	0.759179D-04
42	-0.771012D-05	0.128199D-04	0.890881D-04	-0.272953D-04	-0.104006D-04
43	0.106921D-03	-0.654484D-03	-0.198029D-02	-0.779776D-03	-0.284871D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.936798D-03				
37	-0.394121D-03	0.255943D-01			
38	-0.350530D-05	0.899877D-05	0.304283D-04		
39	-0.554938D-04	-0.122440D-03	-0.397494D-05	0.132509D-03	
40	0.170170D-03	-0.355950D-05	-0.583918D-04	-0.355281D-04	0.681216D-01
41	0.167568D-04	0.976202D-04	-0.105781D-06	0.299140D-05	-0.289209D-03

42	0.110344D-04	-0.367166D-04	0.967923D-06	-0.531449D-05	0.261840D-03
43	-0.111117D-02	0.619659D-01	0.368271D-04	-0.205098D-03	-0.891720D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.245219D-02		
42	-0.552284D-04	0.325794D-03	
43	0.219818D-03	-0.110058D-03	0.151411D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.196	1.000			
3	-0.076	-0.090	1.000		
4	0.051	0.156	-0.081	1.000	
5	-0.064	-0.177	0.145	-0.172	1.000
6	0.030	0.001	0.065	0.003	-0.028
7	-0.050	0.014	0.001	-0.015	0.006
8	-0.003	-0.038	0.023	-0.007	-0.028
9	0.033	-0.017	-0.042	-0.007	0.009
10	0.019	-0.004	-0.002	-0.035	0.038
11	0.018	-0.002	0.010	-0.023	0.011
12	-0.044	-0.031	-0.002	-0.017	-0.014
13	0.022	0.029	-0.022	0.014	-0.031
14	0.005	-0.003	-0.043	0.024	0.012
15	0.019	-0.030	-0.006	-0.048	0.008
16	-0.049	0.013	0.028	0.020	0.025
17	0.002	0.019	-0.006	-0.046	0.027
18	0.005	0.036	0.005	0.023	-0.015
19	-0.004	-0.020	0.040	-0.027	0.020
20	0.027	0.060	0.021	-0.013	-0.021
21	-0.011	0.026	0.017	-0.018	0.016
22	-0.019	-0.012	0.028	0.010	-0.002
23	-0.030	-0.024	0.031	-0.047	-0.042
24	0.026	0.020	-0.011	0.003	0.029
25	-0.003	-0.002	-0.009	0.032	0.009
26	0.056	-0.010	-0.050	0.030	0.009
27	0.040	-0.002	0.012	-0.033	0.030
28	-0.036	0.050	0.005	0.068	-0.018
29	0.023	-0.008	0.014	-0.053	0.032

30	0.013	0.021	-0.016	-0.004	-0.037
31	-0.038	0.007	-0.005	0.053	-0.062
32	-0.022	0.022	-0.025	0.005	0.011
33	-0.026	-0.036	0.045	-0.019	0.020
34	-0.017	0.050	-0.038	0.080	-0.065
35	0.027	-0.007	0.038	0.013	0.004
36	-0.022	0.031	0.048	-0.021	0.047
37	0.001	-0.020	0.000	0.030	0.016
38	-0.055	0.009	0.024	-0.009	0.007
39	0.002	-0.042	0.007	-0.027	-0.015
40	-0.020	-0.026	0.029	0.029	-0.010
41	-0.005	-0.015	-0.006	0.049	-0.014
42	-0.030	-0.034	-0.012	-0.056	-0.038
43	0.002	-0.021	0.000	0.030	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.094	1.000			
8	0.006	0.088	1.000		
9	0.036	-0.152	0.090	1.000	
10	0.036	0.127	-0.156	0.089	1.000
11	0.014	0.051	-0.033	-0.031	0.024
12	-0.032	0.032	-0.008	-0.017	-0.022
13	-0.027	0.018	-0.036	-0.038	-0.009
14	0.006	-0.006	0.063	0.011	-0.030
15	0.054	-0.020	-0.006	0.032	0.013
16	0.002	0.048	0.026	0.008	0.009
17	-0.015	0.001	-0.012	-0.001	-0.013
18	-0.016	0.034	-0.014	-0.009	-0.011
19	0.046	-0.033	-0.005	0.022	0.004
20	-0.030	0.030	-0.018	-0.003	0.018
21	-0.041	0.001	-0.003	0.028	-0.023
22	-0.025	0.027	0.005	0.012	0.009
23	0.041	-0.032	-0.013	0.037	0.002
24	-0.010	0.033	-0.040	0.012	0.059
25	-0.034	0.030	-0.010	0.033	0.037
26	0.033	0.003	0.042	0.010	0.024
27	0.031	-0.019	-0.020	0.000	0.005
28	-0.028	0.014	0.050	0.007	-0.022
29	0.019	-0.057	0.008	0.014	0.021
30	0.035	-0.019	0.031	-0.012	0.001

31	0.002	-0.002	-0.029	-0.009	0.009
32	-0.064	-0.057	-0.042	-0.166	0.147
33	0.003	0.024	0.009	-0.014	-0.004
34	0.000	0.046	0.012	-0.038	0.027
35	-0.053	-0.024	-0.034	0.000	0.003
36	-0.033	0.043	-0.017	-0.082	0.030
37	-0.033	0.010	0.013	0.001	0.018
38	0.034	-0.019	-0.011	-0.053	-0.018
39	0.036	0.060	0.019	0.027	0.000
40	-0.002	0.004	0.015	0.001	-0.005
41	0.002	-0.020	0.044	0.009	0.013
42	0.021	-0.044	0.032	-0.004	-0.014
43	0.003	0.015	0.006	0.002	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.269	1.000			
13	0.021	0.298	1.000		
14	-0.116	-0.149	-0.090	1.000	
15	0.006	-0.114	-0.282	0.200	1.000
16	0.030	0.020	0.054	-0.097	-0.216
17	0.046	0.226	0.055	-0.118	-0.015
18	-0.009	0.106	0.328	-0.077	-0.172
19	-0.035	-0.053	-0.062	0.075	0.196
20	0.038	0.022	0.064	0.008	-0.017
21	0.097	0.212	0.084	-0.090	-0.040
22	0.080	0.166	0.285	-0.073	-0.152
23	-0.026	-0.068	-0.087	0.088	0.175
24	0.019	0.067	0.093	-0.040	-0.054
25	0.042	0.039	0.075	-0.062	-0.047
26	-0.147	-0.262	-0.073	0.198	0.030
27	-0.054	-0.177	-0.347	0.096	0.230
28	0.026	0.048	0.076	-0.087	-0.233
29	-0.060	-0.092	-0.094	0.060	0.077
30	-0.036	-0.040	-0.093	0.026	0.049
31	0.039	0.048	0.084	-0.017	-0.076
32	0.013	0.041	0.052	-0.040	-0.006
33	0.026	0.036	0.002	0.017	0.044
34	-0.006	0.006	0.043	-0.026	-0.032
35	-0.056	-0.049	0.053	0.023	-0.111
36	0.000	0.037	-0.002	-0.001	-0.036

37	0.006	0.001	-0.018	0.008	0.025
38	0.030	0.011	0.005	0.017	-0.014
39	0.056	0.019	0.010	-0.028	0.028
40	0.022	-0.001	0.013	0.000	-0.020
41	-0.024	-0.024	-0.017	-0.015	0.010
42	-0.020	-0.005	-0.013	-0.021	-0.012
43	0.011	-0.002	-0.020	0.007	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	-0.009	1.000			
18	0.073	0.180	1.000		
19	-0.187	-0.039	-0.166	1.000	
20	0.009	0.037	0.265	-0.150	1.000
21	0.011	0.225	0.090	-0.051	0.046
22	0.087	0.072	0.268	-0.056	0.048
23	-0.124	-0.101	-0.034	0.236	-0.003
24	0.022	0.070	0.225	-0.117	0.253
25	0.019	0.031	0.066	-0.023	0.047
26	-0.034	-0.213	-0.049	0.035	0.004
27	-0.072	-0.040	-0.220	0.086	-0.068
28	0.224	0.041	0.077	-0.197	-0.019
29	-0.025	-0.093	-0.242	0.222	-0.242
30	-0.015	-0.012	-0.103	0.102	-0.068
31	0.036	0.004	0.051	-0.073	0.025
32	-0.005	0.027	0.056	0.018	0.020
33	0.024	-0.003	-0.040	0.060	-0.012
34	0.019	0.026	0.038	0.005	-0.013
35	0.040	0.007	0.030	0.007	-0.023
36	-0.013	-0.015	-0.018	-0.004	0.015
37	-0.002	0.014	0.006	-0.020	0.054
38	0.034	0.022	0.036	-0.041	0.047
39	0.034	0.003	0.029	0.001	-0.005
40	-0.005	0.017	0.009	0.021	-0.015
41	0.004	-0.001	0.021	0.022	0.032
42	0.012	0.009	-0.016	-0.004	-0.036
43	-0.004	0.013	0.007	-0.017	0.048

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
--	----	----	----	----	----

21	1.000				
22	0.224	1.000			
23	-0.107	-0.168	1.000		
24	0.096	0.247	-0.142	1.000	
25	0.157	0.311	-0.089	0.277	1.000
26	-0.196	-0.070	0.042	-0.001	-0.034
27	-0.050	-0.248	0.074	-0.089	-0.083
28	0.066	0.071	-0.192	0.029	0.015
29	-0.072	-0.133	0.020	-0.199	-0.076
30	-0.112	-0.249	0.198	-0.226	-0.282
31	0.031	0.067	-0.035	0.041	0.052
32	0.009	-0.007	0.005	0.022	-0.024
33	0.004	-0.002	0.007	-0.014	-0.034
34	0.036	0.043	-0.014	0.002	0.049
35	0.007	0.025	-0.024	-0.033	-0.010
36	-0.038	0.012	0.017	-0.005	0.024
37	0.004	-0.019	0.006	0.002	0.017
38	0.000	0.018	-0.024	0.016	-0.055
39	0.006	-0.002	0.001	-0.017	-0.033
40	0.009	0.021	-0.024	-0.012	0.014
41	-0.028	0.018	-0.008	-0.009	0.029
42	-0.033	-0.011	0.007	-0.023	-0.036
43	0.001	-0.022	0.010	-0.001	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.202	1.000			
28	-0.100	-0.244	1.000		
29	0.052	0.284	-0.134	1.000	
30	0.084	0.238	-0.122	0.264	1.000
31	-0.103	-0.326	0.282	-0.287	-0.300
32	0.004	-0.015	0.011	-0.052	-0.007
33	-0.020	0.019	-0.030	0.025	0.018
34	0.020	-0.016	0.031	-0.016	-0.057
35	0.058	0.009	-0.003	-0.001	-0.006
36	-0.017	0.015	0.013	0.032	0.020
37	-0.062	-0.016	-0.013	0.026	0.013
38	0.016	-0.037	0.018	-0.048	0.035
39	0.010	0.003	0.002	0.014	0.027
40	-0.009	-0.037	0.006	0.033	0.022

41	0.013	0.008	-0.033	-0.020	-0.004
42	-0.006	-0.018	-0.007	0.028	0.051
43	-0.062	-0.011	-0.018	0.027	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.031	1.000			
33	-0.011	0.026	1.000		
34	0.021	0.000	0.053	1.000	
35	0.011	0.072	0.008	0.006	1.000
36	-0.013	0.028	0.021	-0.032	0.044
37	0.012	-0.051	-0.036	-0.047	-0.019
38	0.043	0.030	0.033	0.000	0.021
39	0.007	0.007	0.012	0.014	-0.039
40	0.000	0.013	-0.009	0.051	0.045
41	0.001	0.005	-0.025	0.007	0.052
42	-0.024	0.022	0.032	-0.037	-0.020
43	0.015	-0.053	-0.033	-0.049	-0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.080	1.000			
38	-0.021	0.010	1.000		
39	-0.158	-0.066	-0.063	1.000	
40	0.021	0.000	-0.041	-0.012	1.000
41	0.011	0.012	0.000	0.005	-0.022
42	0.020	-0.013	0.010	-0.026	0.056
43	-0.093	0.995	0.017	-0.046	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	-0.062	1.000	
43	0.011	-0.016	1.000



TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.010	43
200	1.010	7
300	1.010	35
400	1.004	35
500	1.003	39
600	1.007	41
700	1.002	41
800	1.001	31
900	1.002	41
1000	1.002	23

Deterioration in physical health, role clarity interaction

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.947	0.947	0.947		
KES15	0.922	0.922	0.922	0.922	
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.915		
PRESS15	0.914	0.915	
DUTIES15	0.915	0.915	0.915

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

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PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

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# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	4.120	-1.246	1.000	2.40%	4.000	4.000	4.000
5077.000	0.861	1.673	5.000	38.74%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 43

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.978	0.070	0.000	0.837	1.119	*
CHOICE15	-0.069	0.025	0.001	-0.119	-0.024	*
PRESS15	-0.033	0.025	0.096	-0.084	0.016	
BULLY15	0.028	0.048	0.271	-0.062	0.121	
KES15	0.224	0.045	0.000	0.136	0.310	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.073	*
BULLY15	0.057	0.004	0.000	0.050	0.066	*
PRESS15	0.099	0.007	0.000	0.085	0.115	*
DUTIES15	-0.102	0.007	0.000	-0.116	-0.087	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.038	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.023	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15	-0.087	0.015	0.000	-0.118	-0.059	*
DUTIES15	0.173	0.014	0.000	0.145	0.200	*
BULLY15 WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.074	0.006	0.000	-0.087	-0.062	*
PRESS15 WITH						
DUTIES15	-0.179	0.014	0.000	-0.207	-0.152	*
Means						
PHY15	0.002	0.007	0.384	-0.011	0.016	
KES15	0.001	0.008	0.439	-0.014	0.017	
CHOICE15	-0.001	0.015	0.465	-0.030	0.029	
BULLY15	0.000	0.007	0.485	-0.012	0.014	
PRESS15	0.002	0.014	0.462	-0.025	0.028	

Variances						
PHY15	0.233	0.005	0.000	0.225	0.242	*
KES15	0.290	0.006	0.000	0.278	0.302	*
CHOICE15	1.083	0.021	0.000	1.043	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.044	*
DUTIES15	0.843	0.017	0.000	0.811	0.880	*
Between Level						
S1	ON					
PRAFAC		-0.007	0.032	0.412	-0.067	0.058
PHYCAT16	ON					
PRAFAC		-0.082	0.030	0.005	-0.143	-0.022
DUTIES15		-0.216	0.260	0.199	-0.716	0.296
PRAFAC	WITH					
DUTIES15		0.029	0.038	0.209	-0.046	0.103
Means						
PRAFAC		-0.182	0.155	0.122	-0.485	0.117
DUTIES15		4.148	0.031	0.000	4.085	4.209
Intercepts						
S1		-0.030	0.037	0.187	-0.102	0.044
Thresholds						
PHYCAT16\$1		0.458	1.074	0.321	-1.626	2.596
Variances						
PRAFAC		1.348	0.260	0.000	0.955	1.989
DUTIES15		0.041	0.009	0.000	0.027	0.064
Residual Variances						
PHYCAT16		0.014	0.011	0.000	0.001	0.044
S1		0.008	0.010	0.000	0.001	0.037

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON DUTIES15	-0.024	0.026	0.179	-0.074	0.027	
PHYCAT16 ON						
PHY15	0.416	0.025	0.000	0.365	0.465	*
CHOICE15	-0.064	0.023	0.001	-0.109	-0.021	*
PRESS15	-0.030	0.023	0.103	-0.074	0.015	
BULLY15	0.013	0.021	0.266	-0.028	0.055	
KES15	0.106	0.021	0.000	0.065	0.147	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.014	0.000	0.191	0.245	*
PRESS15	0.185	0.013	0.000	0.160	0.212	*
DUTIES15	-0.207	0.014	0.000	-0.234	-0.179	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.045	*
BULLY15	0.050	0.014	0.000	0.022	0.076	*
PRESS15	0.080	0.014	0.000	0.053	0.108	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.052	*
CHOICE15 WITH						
BULLY15	-0.114	0.014	0.000	-0.141	-0.088	*
PRESS15	-0.083	0.014	0.000	-0.112	-0.056	*
DUTIES15	0.181	0.014	0.000	0.153	0.208	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.188	0.240	*
DUTIES15	-0.165	0.014	0.000	-0.192	-0.139	*
PRESS15 WITH						
DUTIES15	-0.195	0.014	0.000	-0.223	-0.168	*
Means						
PHY15	0.004	0.014	0.389	-0.023	0.032	
KES15	0.003	0.014	0.429	-0.025	0.030	

CHOICE15	-0.001	0.014	0.466	-0.029	0.027	
BULLY15	0.001	0.014	0.478	-0.027	0.029	
PRESS15	0.001	0.014	0.465	-0.026	0.028	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.092	0.376	0.412	-0.792	0.642	
PHYCAT16 ON						
PRAFAC	-0.576	0.188	0.005	-0.910	-0.166	*
DUTIES15	-0.266	0.289	0.199	-0.740	0.368	
PRAFAC WITH						
DUTIES15	0.126	0.150	0.209	-0.190	0.396	
Means						
PRAFAC	-0.159	0.133	0.122	-0.419	0.108	
DUTIES15	20.484	2.252	0.000	16.291	25.229	*
Intercepts						
S1	-0.307	0.452	0.187	-1.393	0.411	
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.479	0.217	0.000	0.062	0.889	*
S1	0.924	0.185	0.000	0.307	1.000	*
R-SQUARE						
Within-Level R-Square Averaged Across Clusters						



Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.224	0.022	0.000	0.182	0.268

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.521	0.217	0.000	0.111	0.938

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.076	0.185	0.000	0.000	0.693

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15

	0	1	2	3	4
ALPHA					
	PRESS15	DUTIES15			
	<hr/> 5	<hr/> 0			
BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 6	<hr/> 7	<hr/> 8	<hr/> 9
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
BETA					
	PRESS15	DUTIES15			
PHYCAT16	<hr/> 10	<hr/> 0			
PHY15	0	0			
KES15	0	0			
CHOICE15	0	0			
BULLY15	0	0			
PRESS15	0	0			
DUTIES15	0	0			
PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	PHYCAT16
	<u>43</u>

NU	PHYCAT16	PRAFAC	DUTIES15
	<u>0</u>	<u>0</u>	<u>0</u>

	LAMBDA			
	S1	PHYCAT16	PRAFAC	DUTIES15
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0

	THETA		
	PHYCAT16	PRAFAC	DUTIES15
PHYCAT16	<u>0</u>	<u></u>	<u></u>
PRAFAC	0	0	
DUTIES15	0	0	0

	ALPHA			
	S1	PHYCAT16	PRAFAC	DUTIES15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

BETA				
	S1	PHYCAT16	PRAFAC	DUTIES15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0

PSI				
	S1	PHYCAT16	PRAFAC	DUTIES15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
PHYCAT16	0	39		
PRAFAC	0	0	40	
DUTIES15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU	
	PHYCAT16
	<u>0.000</u>

NU					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

# STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	PHYCAT16	PRAFAC	DUTIES15
	0.000	0.000	0.000

LAMBDA	PHYCAT16	PRAFAC	DUTIES15
S1	1.000	0.000	0.000
PHYCAT16	0.000	1.000	0.000
PRAFAC	0.000	0.000	1.000
DUTIES15	0.000	0.000	0.000

THETA	PHYCAT16	PRAFAC	DUTIES15
	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000

ALPHA	PHYCAT16	PRAFAC	DUTIES15
S1	0.000	0.020	4.120
	0.000	0.020	4.120

BETA



	S1	PHYCAT16	PRAFAC	DUTIES15
S1	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

PSI				
	S1	PHYCAT16	PRAFAC	DUTIES15
S1	1.000			
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.504	
DUTIES15	0.000	0.000	0.000	0.430

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity

Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.455451D-04				
2	0.106367D-04	0.610745D-04			
3	-0.769776D-05	-0.114425D-04	0.221345D-03		
4	0.234537D-05	0.861675D-05	-0.732661D-05	0.453102D-04	
5	0.858757D-05	0.210713D-04	-0.166386D-04	0.192777D-04	0.188119D-03
6	0.121276D-04	-0.643977D-06	0.719344D-04	-0.847764D-06	-0.374415D-04
7	-0.189298D-04	0.867564D-05	-0.836544D-05	-0.227869D-05	-0.214395D-05
8	0.562695D-06	-0.745713D-05	0.991078D-05	-0.381821D-06	-0.939179D-05
9	0.723908D-05	-0.346076D-05	-0.372187D-04	-0.174459D-05	0.105942D-04
10	0.841012D-05	-0.165682D-05	0.616387D-05	-0.250379D-05	0.582677D-05
11	0.630048D-06	0.726189D-07	0.488007D-06	-0.586520D-06	0.381689D-06
12	-0.111985D-05	-0.955750D-06	-0.451478D-07	-0.486528D-06	-0.308140D-05
13	0.821935D-06	0.112486D-05	-0.168503D-05	0.348280D-06	-0.115501D-05
14	0.323971D-06	-0.114409D-06	-0.461383D-05	0.123633D-05	0.248943D-05
15	0.118180D-05	-0.144539D-05	-0.174025D-05	-0.230201D-05	-0.215149D-05
16	-0.754887D-05	0.215808D-06	0.106192D-04	0.109284D-05	0.429217D-05
17	0.106489D-06	0.685706D-06	-0.516722D-06	-0.812788D-06	0.688714D-06

18	-0.803237D-08	0.786717D-06	0.688748D-06	0.370690D-06	0.219257D-07
19	0.157137D-06	-0.147119D-06	0.302636D-05	-0.485149D-06	0.320167D-05
20	0.846641D-06	0.237019D-05	0.131659D-05	-0.229234D-06	-0.608067D-06
21	-0.486908D-06	0.192064D-05	0.177892D-05	-0.526133D-06	0.285275D-05
22	-0.968080D-06	-0.552613D-06	0.276809D-05	0.192326D-06	0.501745D-06
23	-0.229194D-05	-0.205644D-05	0.434683D-05	-0.209424D-05	-0.983731D-05
24	0.115845D-05	0.105403D-05	-0.125038D-05	-0.102750D-06	0.288354D-05
25	-0.112565D-05	-0.776055D-06	-0.286322D-05	0.305157D-05	0.490680D-05
26	0.216376D-05	-0.135902D-05	-0.402694D-05	0.607097D-06	-0.237986D-06
27	0.213143D-05	0.381196D-06	0.813378D-06	-0.100498D-05	0.175151D-05
28	-0.429623D-05	0.260313D-05	0.578476D-05	0.231064D-05	-0.662111D-06
29	0.971989D-06	-0.305684D-06	0.981458D-06	-0.210542D-05	0.585440D-07
30	0.120287D-05	0.252016D-05	-0.463157D-05	0.947655D-06	-0.261475D-05
31	-0.405698D-05	0.717116D-07	0.125625D-06	0.475210D-05	-0.114806D-04
32	-0.830920D-05	0.911474D-05	-0.938791D-05	0.146079D-05	0.222065D-04
33	-0.268421D-04	-0.432155D-04	0.972337D-04	-0.227614D-04	-0.102551D-04
34	-0.168835D-04	-0.279414D-04	0.317642D-04	-0.141806D-04	-0.386980D-04
35	0.347163D-05	0.864330D-06	0.157889D-04	0.394875D-05	0.814957D-05
36	-0.302241D-05	0.854823D-05	0.183523D-04	-0.211747D-05	0.730685D-05
37	0.144706D-04	0.105456D-03	0.434837D-04	0.351115D-04	0.170063D-04
38	-0.252190D-05	0.726061D-07	0.403000D-05	-0.942418D-06	-0.143763D-05
39	0.364052D-06	-0.293263D-05	-0.101272D-05	-0.181941D-05	-0.497736D-05
40	-0.431224D-04	-0.696455D-04	0.127441D-03	0.465716D-04	-0.503786D-04
41	-0.304640D-05	-0.261358D-05	-0.969189D-05	0.108048D-04	-0.378343D-05
42	-0.172735D-05	-0.228925D-05	-0.410588D-05	-0.233298D-05	-0.506177D-05
43	0.671122D-04	0.440736D-03	0.173518D-03	0.150482D-03	0.727032D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.487924D-02				
7	-0.334746D-03	0.204937D-02			
8	0.200493D-04	0.763660D-04	0.621683D-03		
9	0.104582D-03	-0.320047D-03	0.967288D-04	0.230816D-02	
10	-0.484356D-04	-0.169427D-03	0.153667D-04	-0.151859D-03	0.644832D-03
11	0.401671D-05	0.107453D-04	-0.427062D-05	-0.473840D-05	0.151811D-05
12	-0.780918D-05	0.764882D-05	-0.129825D-05	-0.103585D-05	-0.142107D-05
13	-0.139217D-04	0.808456D-05	-0.611857D-05	-0.777990D-05	0.218245D-05
14	0.308969D-05	-0.700538D-05	0.125473D-04	-0.641319D-06	0.669051D-06
15	0.318201D-04	-0.924483D-05	-0.175956D-05	0.119764D-04	0.183914D-05
16	0.115307D-04	0.456594D-04	0.129175D-04	0.339364D-05	0.207597D-05
17	-0.380456D-05	0.124886D-05	-0.957930D-06	0.102044D-05	-0.243748D-05
18	-0.451067D-05	0.696823D-05	-0.170848D-05	-0.651703D-06	-0.117401D-05

19	0.226764D-04	-0.934118D-05	-0.251805D-06	0.860303D-05	-0.774922D-06
20	-0.868219D-05	0.705025D-05	-0.233451D-05	0.643384D-06	0.291831D-05
21	-0.166096D-04	0.112265D-06	-0.929455D-08	0.840524D-05	-0.290774D-05
22	-0.153433D-04	0.118776D-04	0.110257D-05	0.525852D-05	-0.349944D-05
23	0.437699D-04	-0.185492D-04	-0.277614D-05	0.309076D-04	0.266612D-05
24	-0.666627D-05	0.104891D-04	-0.717752D-05	0.329332D-05	0.557300D-05
25	-0.459367D-04	0.249250D-04	-0.240300D-05	0.372223D-04	-0.159328D-04
26	0.108928D-04	-0.575678D-06	0.611120D-05	0.258982D-05	0.523528D-05
27	0.142600D-04	-0.894614D-05	-0.376730D-05	-0.841869D-06	0.435769D-05
28	-0.185514D-04	0.120732D-04	0.137884D-04	0.774096D-05	-0.170269D-04
29	0.967877D-05	-0.196740D-04	0.173482D-05	0.253112D-05	0.287888D-05
30	0.293496D-04	-0.152876D-04	0.116394D-04	-0.934782D-05	0.106311D-04
31	0.136784D-04	0.103015D-04	-0.167088D-04	0.535178D-05	-0.866994D-05
32	-0.662725D-04	0.291075D-03	-0.145386D-03	0.650109D-04	0.108680D-03
33	0.210365D-04	0.223778D-03	0.366656D-04	-0.753114D-04	-0.769929D-04
34	0.194955D-04	0.327948D-04	0.152610D-04	-0.673969D-04	0.527150D-05
35	-0.127391D-03	-0.180493D-04	-0.411839D-04	0.162282D-04	0.128372D-04
36	-0.756448D-04	0.685678D-04	-0.167343D-04	-0.101774D-03	0.182028D-04
37	0.209957D-03	0.443554D-03	0.691729D-04	0.360319D-03	-0.158281D-03
38	0.446931D-04	-0.251587D-04	-0.538094D-05	-0.757493D-05	-0.413519D-05
39	0.254321D-04	0.349932D-04	0.414649D-05	0.184874D-04	-0.345075D-05
40	0.153775D-03	0.121397D-03	0.103401D-03	0.167852D-03	-0.176783D-03
41	-0.193743D-05	-0.314547D-04	0.500621D-04	0.322702D-04	-0.750620D-05
42	-0.147534D-04	-0.134869D-04	0.775422D-05	-0.431247D-06	0.956962D-05
43	0.182591D-02	0.192795D-02	0.223859D-03	0.152783D-02	-0.707345D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.209334D-04				
12	0.453176D-05	0.135769D-04			
13	0.536672D-06	0.638866D-05	0.342349D-04		
14	-0.379432D-05	-0.395394D-05	-0.373927D-05	0.514743D-04	
15	0.233158D-06	-0.339458D-05	-0.133804D-04	0.116965D-04	0.665695D-04
16	0.289211D-05	0.155529D-05	0.652317D-05	-0.143288D-04	-0.360812D-04
17	0.660286D-06	0.269864D-05	0.103353D-05	-0.273513D-05	-0.386778D-06
18	-0.168820D-06	0.148224D-05	0.737568D-05	-0.210109D-05	-0.534804D-05
19	-0.113804D-05	-0.138981D-05	-0.261208D-05	0.386664D-05	0.114481D-04
20	0.852194D-06	0.377810D-06	0.178181D-05	0.231610D-06	-0.654555D-06
21	0.311980D-05	0.531239D-05	0.312991D-05	-0.460825D-05	-0.224613D-05
22	0.291128D-05	0.471372D-05	0.123933D-04	-0.400417D-05	-0.990600D-05
23	-0.184200D-05	-0.357395D-05	-0.726390D-05	0.914275D-05	0.212387D-04
24	0.568774D-06	0.171897D-05	0.360467D-05	-0.168900D-05	-0.331887D-05

25	0.381274D-05	0.294960D-05	0.842172D-05	-0.811888D-05	-0.862936D-05
26	-0.416602D-05	-0.590109D-05	-0.241304D-05	0.870796D-05	0.135369D-05
27	-0.191755D-05	-0.477085D-05	-0.143876D-04	0.510560D-05	0.136936D-04
28	0.117337D-05	0.208350D-05	0.543043D-05	-0.756463D-05	-0.248651D-04
29	-0.162711D-05	-0.207941D-05	-0.325375D-05	0.249135D-05	0.410358D-05
30	-0.186822D-05	-0.172313D-05	-0.655065D-05	0.118421D-05	0.571291D-05
31	0.286219D-05	0.298172D-05	0.811844D-05	-0.158806D-05	-0.101521D-04
32	0.431951D-05	0.409065D-05	0.991177D-05	-0.193278D-04	-0.585095D-05
33	0.181778D-04	0.204446D-04	0.988884D-06	0.185906D-04	0.568906D-04
34	0.628572D-06	0.259908D-05	0.795881D-05	-0.439272D-05	-0.929313D-05
35	-0.595347D-05	-0.561061D-05	0.126299D-04	0.235102D-05	-0.331587D-04
36	-0.712271D-06	0.443045D-05	0.934769D-07	0.616772D-06	-0.761709D-05
37	0.316878D-04	0.966816D-07	-0.980691D-04	-0.687192D-04	-0.113123D-05
38	0.493024D-06	-0.186557D-06	-0.879057D-07	0.851506D-06	0.627433D-06
39	0.288376D-05	0.104838D-05	0.132704D-06	-0.284394D-05	0.272627D-05
40	0.178010D-04	-0.486915D-05	0.158161D-04	-0.364267D-05	-0.436972D-04
41	-0.396318D-05	-0.193698D-05	-0.274415D-05	-0.834524D-05	-0.765484D-06
42	0.240241D-06	-0.670895D-07	-0.617493D-07	-0.332543D-05	-0.149528D-05
43	0.138419D-03	-0.270714D-05	-0.164496D-03	-0.287640D-03	0.163823D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.419988D-03				
17	-0.462672D-06	0.104393D-04			
18	0.574254D-05	0.224309D-05	0.148397D-04		
19	-0.276233D-04	-0.907306D-06	-0.456596D-05	0.515817D-04	
20	0.911238D-06	0.577438D-06	0.481051D-05	-0.507700D-05	0.222566D-04
21	0.205942D-05	0.501559D-05	0.226016D-05	-0.274245D-05	0.146340D-05
22	0.130347D-04	0.183230D-05	0.790046D-05	-0.336650D-05	0.170606D-05
23	-0.424199D-04	-0.469617D-05	-0.176355D-05	0.252150D-04	-0.350342D-06
24	0.349812D-05	0.168208D-05	0.593376D-05	-0.621967D-05	0.839532D-05
25	0.708486D-05	0.213510D-05	0.518297D-05	-0.414128D-05	0.500823D-05
26	-0.448086D-05	-0.422547D-05	-0.105364D-05	0.161700D-05	0.101794D-06
27	-0.102903D-04	-0.986786D-06	-0.604737D-05	0.474392D-05	-0.229256D-05
28	0.613878D-04	0.164173D-05	0.372819D-05	-0.176357D-04	-0.117944D-05
29	-0.308157D-05	-0.193778D-05	-0.576159D-05	0.100323D-04	-0.704253D-05
30	-0.147692D-05	-0.671874D-06	-0.529141D-05	0.970752D-05	-0.434604D-05
31	0.116125D-04	0.206254D-06	0.314684D-05	-0.834991D-05	0.197816D-05
32	0.373097D-05	0.160319D-05	0.580485D-05	-0.365859D-05	0.288727D-05
33	0.730476D-04	-0.136972D-05	-0.242703D-04	0.681047D-04	-0.917090D-05
34	0.159873D-04	0.288350D-05	0.449030D-05	-0.196278D-05	-0.213356D-05
35	0.240189D-04	-0.120390D-05	0.505046D-05	-0.201081D-05	-0.126867D-05

36	-0.124486D-04	-0.144241D-05	-0.206108D-05	-0.420646D-06	0.289023D-05
37	0.722952D-04	0.417850D-04	-0.171268D-05	-0.390495D-04	0.480405D-04
38	0.164553D-05	0.917552D-06	0.172435D-05	-0.375341D-05	0.134577D-05
39	0.514921D-05	0.706569D-06	0.112263D-05	0.269808D-06	-0.753922D-06
40	-0.101586D-04	0.143774D-04	0.146780D-04	0.407068D-04	-0.101936D-04
41	0.243848D-05	-0.113770D-05	0.261204D-05	0.295651D-05	0.624949D-05
42	0.308215D-05	0.818697D-07	0.118772D-06	0.248418D-06	-0.736659D-06
43	0.278668D-03	0.170883D-03	-0.585301D-05	-0.153666D-03	0.189698D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.462942D-04				
22	0.113372D-04	0.561881D-04			
23	-0.105652D-04	-0.189515D-04	0.215468D-03		
24	0.434241D-05	0.124300D-04	-0.143493D-04	0.474735D-04	
25	0.217664D-04	0.454981D-04	-0.303487D-04	0.382026D-04	0.414387D-03
26	-0.860668D-05	-0.347295D-05	0.526487D-05	-0.194358D-06	-0.544532D-05
27	-0.244155D-05	-0.137965D-04	0.945278D-05	-0.452532D-05	-0.124209D-04
28	0.624227D-05	0.786873D-05	-0.404330D-04	0.302572D-05	0.584783D-05
29	-0.321430D-05	-0.646982D-05	0.261201D-05	-0.863826D-05	-0.104596D-04
30	-0.984726D-05	-0.237880D-04	0.424732D-04	-0.187173D-04	-0.737278D-04
31	0.351931D-05	0.897762D-05	-0.119353D-04	0.474811D-05	0.190990D-04
32	0.218127D-05	0.399869D-05	0.260124D-05	0.112475D-04	0.774162D-05
33	0.529052D-05	-0.150585D-05	0.351029D-04	-0.186042D-04	-0.100375D-03
34	0.592319D-05	0.388209D-05	0.304012D-05	-0.367965D-05	0.768705D-05
35	-0.385089D-05	0.100649D-04	-0.904696D-05	-0.676900D-06	0.601153D-05
36	-0.894619D-05	0.236013D-05	0.734393D-05	0.256606D-06	0.183524D-04
37	-0.143931D-05	-0.463389D-04	-0.168998D-04	0.302233D-04	0.118769D-03
38	-0.158837D-05	-0.171514D-05	-0.342168D-05	0.183833D-05	-0.135508D-04
39	0.502219D-06	0.220164D-06	-0.223790D-05	-0.129080D-05	-0.630642D-05
40	0.687857D-05	0.454423D-04	-0.804739D-04	-0.295307D-04	0.576027D-04
41	-0.904390D-05	0.683058D-06	-0.359044D-06	-0.276117D-05	0.104176D-04
42	-0.320815D-06	0.553694D-06	0.452614D-05	0.761085D-06	-0.444105D-06
43	-0.154520D-04	-0.201105D-03	-0.491616D-04	0.116922D-03	0.474270D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.396997D-04				
27	0.956868D-05	0.541316D-04			
28	-0.967076D-05	-0.248832D-04	0.187640D-03		

29	0.232910D-05	0.134650D-04	-0.122334D-04	0.406453D-04	
30	0.877869D-05	0.249049D-04	-0.251173D-04	0.242026D-04	0.190260D-03
31	-0.115767D-04	-0.417915D-04	0.686259D-04	-0.313664D-04	-0.743325D-04
32	-0.281404D-05	-0.522897D-05	0.282421D-05	-0.127096D-04	-0.155320D-04
33	-0.181750D-04	0.232355D-04	-0.892856D-04	0.271007D-04	0.427812D-04
34	0.903484D-05	0.175723D-05	0.421991D-05	0.155414D-05	0.309263D-05
35	0.611906D-05	-0.490351D-05	-0.301686D-05	-0.397649D-05	-0.943318D-05
36	-0.241237D-05	0.601139D-05	0.409666D-05	0.648894D-05	0.652042D-05
37	-0.101688D-03	-0.107609D-04	0.438560D-04	-0.344090D-05	0.566008D-04
38	0.313424D-05	0.221756D-06	-0.516528D-06	-0.143857D-05	0.241142D-05
39	-0.167238D-06	0.567410D-07	-0.100124D-05	0.409637D-06	0.235451D-05
40	-0.156194D-04	-0.714791D-04	0.341920D-04	0.525299D-04	0.111153D-03
41	0.309481D-05	0.488739D-05	-0.255665D-04	-0.358484D-05	0.100247D-04
42	0.385867D-06	-0.211287D-07	-0.192945D-06	0.181100D-05	0.336328D-05
43	-0.424508D-03	-0.343188D-04	0.157341D-03	-0.130849D-04	0.240555D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.305692D-03				
32	0.264590D-04	0.134910D-02			
33	-0.378247D-04	0.505990D-04	0.241295D-01		
34	0.104293D-05	0.309923D-05	0.705121D-03	0.985167D-03	
35	-0.501363D-06	0.140536D-03	0.446836D-04	0.334226D-04	0.102693D-02
36	-0.105985D-04	0.451086D-04	0.102198D-03	-0.272837D-04	0.428240D-04
37	-0.968845D-05	-0.309987D-03	-0.665475D-03	0.329274D-05	0.634598D-04
38	0.218916D-05	0.368317D-04	-0.356612D-04	0.162123D-04	0.341009D-04
39	0.227935D-05	-0.976893D-05	0.134197D-04	0.199901D-05	-0.192994D-04
40	0.786588D-05	0.287146D-03	-0.424435D-03	0.377182D-03	0.247891D-03
41	-0.114983D-04	0.178004D-04	-0.752307D-04	-0.173054D-04	0.618296D-04
42	-0.403872D-05	0.850415D-05	0.466358D-05	0.907679D-05	-0.513724D-05
43	-0.288784D-05	-0.130484D-02	-0.260155D-02	-0.323510D-04	0.195767D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.923540D-03				
37	-0.100067D-02	0.673007D-01			
38	0.312222D-05	-0.650843D-04	0.103365D-03		
39	-0.443642D-04	0.139636D-03	-0.381576D-05	0.129606D-03	
40	0.175964D-03	-0.283408D-04	0.652392D-04	-0.172982D-04	0.676716D-01
41	0.559457D-04	0.568366D-04	-0.111762D-05	-0.429550D-05	0.106786D-02

42	0.630457D-05	0.525578D-05	0.229621D-05	-0.650319D-05	0.158413D-03
43	-0.427642D-02	0.278412D+00	-0.239611D-03	0.650442D-03	-0.188109D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.141641D-02		
42	0.596675D-04	0.894096D-04	
43	0.198233D-03	0.100240D-05	0.115310D+01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.202	1.000			
3	-0.077	-0.098	1.000		
4	0.052	0.164	-0.073	1.000	
5	0.093	0.197	-0.082	0.209	1.000
6	0.026	-0.001	0.069	-0.002	-0.039
7	-0.062	0.025	-0.012	-0.007	-0.003
8	0.003	-0.038	0.027	-0.002	-0.027
9	0.022	-0.009	-0.052	-0.005	0.016
10	0.049	-0.008	0.016	-0.015	0.017
11	0.020	0.002	0.007	-0.019	0.006
12	-0.045	-0.033	-0.001	-0.020	-0.061
13	0.021	0.025	-0.019	0.009	-0.014
14	0.007	-0.002	-0.043	0.026	0.025
15	0.021	-0.023	-0.014	-0.042	-0.019
16	-0.055	0.001	0.035	0.008	0.015
17	0.005	0.027	-0.011	-0.037	0.016
18	0.000	0.026	0.012	0.014	0.000
19	0.003	-0.003	0.028	-0.010	0.033
20	0.027	0.064	0.019	-0.007	-0.009
21	-0.011	0.036	0.018	-0.011	0.031
22	-0.019	-0.009	0.025	0.004	0.005
23	-0.023	-0.018	0.020	-0.021	-0.049
24	0.025	0.020	-0.012	-0.002	0.031
25	-0.008	-0.005	-0.009	0.022	0.018
26	0.051	-0.028	-0.043	0.014	-0.003
27	0.043	0.007	0.007	-0.020	0.017
28	-0.046	0.024	0.028	0.025	-0.004
29	0.023	-0.006	0.010	-0.049	0.001



30	0.013	0.023	-0.023	0.010	-0.014
31	-0.034	0.001	0.000	0.040	-0.048
32	-0.034	0.032	-0.017	0.006	0.044
33	-0.026	-0.036	0.042	-0.022	-0.005
34	-0.080	-0.114	0.068	-0.067	-0.090
35	0.016	0.003	0.033	0.018	0.019
36	-0.015	0.036	0.041	-0.010	0.018
37	0.008	0.052	0.011	0.020	0.005
38	-0.037	0.001	0.027	-0.014	-0.010
39	0.005	-0.033	-0.006	-0.024	-0.032
40	-0.025	-0.034	0.033	0.027	-0.014
41	-0.012	-0.009	-0.017	0.043	-0.007
42	-0.027	-0.031	-0.029	-0.037	-0.039
43	0.009	0.053	0.011	0.021	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.106	1.000			
8	0.012	0.068	1.000		
9	0.031	-0.147	0.081	1.000	
10	-0.027	-0.147	0.024	-0.124	1.000
11	0.013	0.052	-0.037	-0.022	0.013
12	-0.030	0.046	-0.014	-0.006	-0.015
13	-0.034	0.031	-0.042	-0.028	0.015
14	0.006	-0.022	0.070	-0.002	0.004
15	0.056	-0.025	-0.009	0.031	0.009
16	0.008	0.049	0.025	0.003	0.004
17	-0.017	0.009	-0.012	0.007	-0.030
18	-0.017	0.040	-0.018	-0.004	-0.012
19	0.045	-0.029	-0.001	0.025	-0.004
20	-0.026	0.033	-0.020	0.003	0.024
21	-0.035	0.000	0.000	0.026	-0.017
22	-0.029	0.035	0.006	0.015	-0.018
23	0.043	-0.028	-0.008	0.044	0.007
24	-0.014	0.034	-0.042	0.010	0.032
25	-0.032	0.027	-0.005	0.038	-0.031
26	0.025	-0.002	0.039	0.009	0.033
27	0.028	-0.027	-0.021	-0.002	0.023
28	-0.019	0.019	0.040	0.012	-0.049
29	0.022	-0.068	0.011	0.008	0.018
30	0.030	-0.024	0.034	-0.014	0.030

31	0.011	0.013	-0.038	0.006	-0.020
32	-0.026	0.175	-0.159	0.037	0.117
33	0.002	0.032	0.009	-0.010	-0.020
34	0.009	0.023	0.020	-0.045	0.007
35	-0.057	-0.012	-0.052	0.011	0.016
36	-0.036	0.050	-0.022	-0.070	0.024
37	0.012	0.038	0.011	0.029	-0.024
38	0.063	-0.055	-0.021	-0.016	-0.016
39	0.032	0.068	0.015	0.034	-0.012
40	0.008	0.010	0.016	0.013	-0.027
41	-0.001	-0.018	0.053	0.018	-0.008
42	-0.022	-0.032	0.033	-0.001	0.040
43	0.024	0.040	0.008	0.030	-0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.269	1.000			
13	0.020	0.296	1.000		
14	-0.116	-0.150	-0.089	1.000	
15	0.006	-0.113	-0.280	0.200	1.000
16	0.031	0.021	0.054	-0.097	-0.216
17	0.045	0.227	0.055	-0.118	-0.015
18	-0.010	0.104	0.327	-0.076	-0.170
19	-0.035	-0.053	-0.062	0.075	0.195
20	0.039	0.022	0.065	0.007	-0.017
21	0.100	0.212	0.079	-0.094	-0.040
22	0.085	0.171	0.283	-0.074	-0.162
23	-0.027	-0.066	-0.085	0.087	0.177
24	0.018	0.068	0.089	-0.034	-0.059
25	0.041	0.039	0.071	-0.056	-0.052
26	-0.145	-0.254	-0.065	0.193	0.026
27	-0.057	-0.176	-0.334	0.097	0.228
28	0.019	0.041	0.068	-0.077	-0.222
29	-0.056	-0.089	-0.087	0.054	0.079
30	-0.030	-0.034	-0.081	0.012	0.051
31	0.036	0.046	0.079	-0.013	-0.071
32	0.026	0.030	0.046	-0.073	-0.020
33	0.026	0.036	0.001	0.017	0.045
34	0.004	0.022	0.043	-0.020	-0.036
35	-0.041	-0.048	0.067	0.010	-0.127
36	-0.005	0.040	0.001	0.003	-0.031

37	0.027	0.000	-0.025	-0.037	-0.001
38	0.011	-0.005	-0.001	0.012	0.008
39	0.055	0.025	0.002	-0.035	0.029
40	0.015	-0.005	0.010	-0.002	-0.021
41	-0.023	-0.014	-0.012	-0.031	-0.002
42	0.006	-0.002	-0.001	-0.049	-0.019
43	0.028	-0.001	-0.026	-0.037	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	-0.007	1.000			
18	0.073	0.180	1.000		
19	-0.188	-0.039	-0.165	1.000	
20	0.009	0.038	0.265	-0.150	1.000
21	0.015	0.228	0.086	-0.056	0.046
22	0.085	0.076	0.274	-0.063	0.048
23	-0.141	-0.099	-0.031	0.239	-0.005
24	0.025	0.076	0.224	-0.126	0.258
25	0.017	0.032	0.066	-0.028	0.052
26	-0.035	-0.208	-0.043	0.036	0.003
27	-0.068	-0.042	-0.213	0.090	-0.066
28	0.219	0.037	0.071	-0.179	-0.018
29	-0.024	-0.094	-0.235	0.219	-0.234
30	-0.005	-0.015	-0.100	0.098	-0.067
31	0.032	0.004	0.047	-0.066	0.024
32	0.005	0.014	0.041	-0.014	0.017
33	0.023	-0.003	-0.041	0.061	-0.013
34	0.025	0.028	0.037	-0.009	-0.014
35	0.037	-0.012	0.041	-0.009	-0.008
36	-0.020	-0.015	-0.018	-0.002	0.020
37	0.014	0.050	-0.002	-0.021	0.039
38	0.008	0.028	0.044	-0.051	0.028
39	0.022	0.019	0.026	0.003	-0.014
40	-0.002	0.017	0.015	0.022	-0.008
41	0.003	-0.009	0.018	0.011	0.035
42	0.016	0.003	0.003	0.004	-0.017
43	0.013	0.049	-0.001	-0.020	0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
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21	1.000				
22	0.222	1.000			
23	-0.106	-0.172	1.000		
24	0.093	0.241	-0.142	1.000	
25	0.157	0.298	-0.102	0.272	1.000
26	-0.201	-0.074	0.057	-0.004	-0.042
27	-0.049	-0.250	0.088	-0.089	-0.083
28	0.067	0.077	-0.201	0.032	0.021
29	-0.074	-0.135	0.028	-0.197	-0.081
30	-0.105	-0.230	0.210	-0.197	-0.263
31	0.030	0.069	-0.047	0.039	0.054
32	0.009	0.015	0.005	0.044	0.010
33	0.005	-0.001	0.015	-0.017	-0.032
34	0.028	0.017	0.007	-0.017	0.012
35	-0.018	0.042	-0.019	-0.003	0.009
36	-0.043	0.010	0.016	0.001	0.030
37	-0.001	-0.024	-0.004	0.017	0.022
38	-0.023	-0.023	-0.023	0.026	-0.065
39	0.006	0.003	-0.013	-0.016	-0.027
40	0.004	0.023	-0.021	-0.016	0.011
41	-0.035	0.002	-0.001	-0.011	0.014
42	-0.005	0.008	0.033	0.012	-0.002
43	-0.002	-0.025	-0.003	0.016	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.206	1.000			
28	-0.112	-0.247	1.000		
29	0.058	0.287	-0.140	1.000	
30	0.101	0.245	-0.133	0.275	1.000
31	-0.105	-0.325	0.287	-0.281	-0.308
32	-0.012	-0.019	0.006	-0.054	-0.031
33	-0.019	0.020	-0.042	0.027	0.020
34	0.046	0.008	0.010	0.008	0.007
35	0.030	-0.021	-0.007	-0.019	-0.021
36	-0.013	0.027	0.010	0.033	0.016
37	-0.062	-0.006	0.012	-0.002	0.016
38	0.049	0.003	-0.004	-0.022	0.017
39	-0.002	0.001	-0.006	0.006	0.015
40	-0.010	-0.037	0.010	0.032	0.031

41	0.013	0.018	-0.050	-0.015	0.019
42	0.006	0.000	-0.001	0.030	0.026
43	-0.063	-0.004	0.011	-0.002	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.041	1.000			
33	-0.014	0.009	1.000		
34	0.002	0.003	0.145	1.000	
35	-0.001	0.119	0.009	0.033	1.000
36	-0.020	0.040	0.022	-0.029	0.044
37	-0.002	-0.033	-0.017	0.000	0.008
38	0.012	0.099	-0.023	0.051	0.105
39	0.011	-0.023	0.008	0.006	-0.053
40	0.002	0.030	-0.011	0.046	0.030
41	-0.017	0.013	-0.013	-0.015	0.051
42	-0.024	0.024	0.003	0.031	-0.017
43	0.000	-0.033	-0.016	-0.001	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.127	1.000			
38	0.010	-0.025	1.000		
39	-0.128	0.047	-0.033	1.000	
40	0.022	0.000	0.025	-0.006	1.000
41	0.049	0.006	-0.003	-0.010	0.109
42	0.022	0.002	0.024	-0.060	0.064
43	-0.131	0.999	-0.022	0.053	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.168	1.000	
43	0.005	0.000	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.022	38
200	1.007	7
300	1.006	35
400	1.002	23
500	1.003	41
600	1.006	41
700	1.002	41
800	1.004	38
900	1.008	38
1000	1.003	38

Improvement in physical health, job control interaction

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	0.971	0.971	0.971	0.971	
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.963
PRESS15	0.966	0.966	0.966	0.966	0.963
DUTIES15	0.966	0.966	0.966	0.966	0.963

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.966		
PRESS15	0.966	0.966	
DUTIES15	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.173	0.219	-2.338	1.75%	-1.489	-0.520	-0.258
57.000	1.361	-0.662	2.338	1.75%	0.080	0.848	



PHY15	0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15	0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15	2.878	-0.138	1.000	14.60%	2.000	3.000	3.000
1370.000	1.250	-0.758	5.000	5.77%	3.000	4.000	
BULLY15	0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15	0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15	0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.828	0.116	0.000	0.611	1.055	*
BULLY15	0.049	0.056	0.201	-0.060	0.155	
DUTIES15	0.034	0.038	0.189	-0.041	0.109	
PRESS15	-0.003	0.035	0.466	-0.069	0.066	
KES15	0.166	0.052	0.000	0.060	0.262	*
KES15 WITH						
PHY15	0.070	0.009	0.000	0.054	0.089	*
CHOICE15	-0.131	0.024	0.000	-0.179	-0.086	*

BULLY15	0.127	0.015	0.000	0.098	0.158	*
PRESS15	0.206	0.024	0.000	0.161	0.255	*
DUTIES15	-0.207	0.021	0.000	-0.247	-0.164	*
PHY15 WITH						
CHOICE15	-0.030	0.012	0.006	-0.055	-0.008	*
BULLY15	0.013	0.007	0.037	-0.001	0.026	
PRESS15	0.015	0.012	0.107	-0.008	0.037	
DUTIES15	-0.009	0.011	0.196	-0.029	0.012	
CHOICE15 WITH						
BULLY15	-0.122	0.021	0.000	-0.162	-0.081	*
PRESS15	-0.170	0.032	0.000	-0.235	-0.107	*
DUTIES15	0.163	0.030	0.000	0.106	0.225	*
BULLY15 WITH						
PRESS15	0.178	0.020	0.000	0.136	0.218	*
DUTIES15	-0.141	0.019	0.000	-0.180	-0.105	*
PRESS15 WITH						
DUTIES15	-0.244	0.030	0.000	-0.306	-0.183	*
Means						
PHY15	0.000	0.010	0.499	-0.019	0.022	
KES15	0.000	0.021	0.497	-0.042	0.042	
BULLY15	0.001	0.018	0.481	-0.035	0.037	
PRESS15	0.002	0.030	0.484	-0.059	0.058	
DUTIES15	-0.001	0.028	0.494	-0.054	0.052	
Variances						
PHY15	0.154	0.006	0.000	0.144	0.166	*
KES15	0.615	0.024	0.000	0.569	0.661	*
CHOICE15	1.202	0.046	0.000	1.117	1.294	*
BULLY15	0.475	0.018	0.000	0.439	0.511	*
PRESS15	1.208	0.046	0.000	1.119	1.301	*
DUTIES15	0.977	0.037	0.000	0.908	1.052	*
Between Level						
S1 ON						
PRAFAC	0.031	0.038	0.223	-0.048	0.100	
PHYCAT16 ON						
PRAFAC	-0.049	0.041	0.115	-0.129	0.035	

CHOICE15	-0.105	0.185	0.271	-0.494	0.263	
PRAFAC WITH CHOICE15	0.005	0.072	0.477	-0.138	0.144	
Means						
PRAFAC	-0.172	0.154	0.137	-0.467	0.132	
CHOICE15	2.954	0.057	0.000	2.841	3.066	*
Intercepts						
S1	-0.038	0.040	0.155	-0.120	0.037	
Thresholds						
PHYCAT16\$1	-0.700	0.541	0.092	-1.830	0.385	
Variances						
PRAFAC	1.369	0.264	0.000	0.992	2.003	*
CHOICE15	0.084	0.024	0.000	0.051	0.142	*
Residual Variances						
PHYCAT16	0.007	0.011	0.000	0.000	0.039	*
S1	0.005	0.009	0.000	0.000	0.031	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON CHOICE15	-0.043	0.038	0.127	-0.117	0.030	
PHYCAT16 ON						
PHY15	0.302	0.039	0.000	0.222	0.377	*
BULLY15	0.032	0.036	0.201	-0.038	0.098	
DUTIES15	0.031	0.035	0.188	-0.039	0.098	
PRESS15	-0.002	0.035	0.473	-0.071	0.068	
KES15	0.120	0.038	0.000	0.045	0.194	*

KES15	WITH					
PHY15		0.230	0.026	0.000	0.178	0.280 *
CHOICE15		-0.153	0.026	0.000	-0.203	-0.100 *
BULLY15		0.236	0.026	0.000	0.184	0.285 *
PRESS15		0.240	0.025	0.000	0.191	0.290 *
DUTIES15		-0.267	0.025	0.000	-0.313	-0.216 *
PHY15	WITH					
CHOICE15		-0.070	0.027	0.005	-0.125	-0.018 *
BULLY15		0.046	0.027	0.040	-0.005	0.098
PRESS15		0.036	0.028	0.105	-0.019	0.088
DUTIES15		-0.024	0.028	0.199	-0.077	0.032
CHOICE15	WITH					
BULLY15		-0.161	0.027	0.000	-0.212	-0.107 *
PRESS15		-0.140	0.027	0.000	-0.191	-0.086 *
DUTIES15		0.150	0.027	0.000	0.097	0.201 *
BULLY15	WITH					
PRESS15		0.234	0.025	0.000	0.183	0.282 *
DUTIES15		-0.206	0.026	0.000	-0.256	-0.154 *
PRESS15	WITH					
DUTIES15		-0.224	0.026	0.000	-0.274	-0.173 *
Means						
PHY15		0.000	0.027	0.499	-0.050	0.055
KES15		0.001	0.026	0.492	-0.052	0.052
BULLY15		0.001	0.026	0.482	-0.051	0.053
PRESS15		0.001	0.027	0.490	-0.053	0.054
DUTIES15		-0.001	0.028	0.494	-0.055	0.054
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
S1	ON					
PRAFAC		0.444	0.449	0.223	-0.650	0.970

PHYCAT16	ON					
PRAFAC		-0.485	0.343	0.115	-0.951	0.361
CHOICE15		-0.263	0.387	0.271	-0.906	0.583
PRAFAC	WITH					
CHOICE15		0.014	0.198	0.477	-0.374	0.379
Means						
PRAFAC		-0.145	0.131	0.137	-0.407	0.113
CHOICE15		10.237	1.353	0.000	7.767	13.095 *
Intercepts						
S1		-0.425	0.594	0.155	-1.946	0.395
Variances						
PRAFAC		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.490	0.274	0.000	0.022	0.960 *
S1		0.756	0.301	0.000	0.060	0.999 *

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.143	0.027	0.000	0.096	0.201

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.510	0.274	0.000	0.040	0.978

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.244	0.301	0.000	0.001	0.940

# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>0</u>	<u>          </u>
DUTIES15	0

ALPHA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>3</u>

ALPHA	
PRESS15	DUTIES15
<u>4</u>	<u>5</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>0</u>	<u>8</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0

BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU

PHYCAT16
43



NU				
	PHYCAT16	PRAFAC	CHOICE15	
	<hr/>	<hr/>	<hr/>	
	0	0	0	
LAMBDA				
	S1	PHYCAT16	PRAFAC	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	0	0	0
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0
THETA				
	PHYCAT16	PRAFAC	CHOICE15	
	<hr/>	<hr/>	<hr/>	
PHYCAT16	0			
PRAFAC	0	0		
CHOICE15	0	0	0	
ALPHA				
	S1	PHYCAT16	PRAFAC	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>
	32	0	33	34
BETA				
	S1	PHYCAT16	PRAFAC	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>
S1	0	0	35	0
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0
PSI				
	S1	PHYCAT16	PRAFAC	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>
S1	38			
PHYCAT16	0	39		
PRAFAC	0	0	40	

CHOICE15	0	0	41	42
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STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000

PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000

DUTIES15	0.000	0.000	0.000	0.000	0.000
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BETA

PRESS15	DUTIES15
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PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
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PHYCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
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PRESS15	<u>0.604</u>	<u>          </u>
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU

PHYCAT16
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<u>-0.311</u>
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NU

	PHYCAT16	PRAFAC	CHOICE15	
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
LAMBDA				
	S1	PHYCAT16	PRAFAC	CHOICE15
PHYCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	1.000
THETA				
	PHYCAT16	PRAFAC	CHOICE15	
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PRAFAC	0.000	0.000		
CHOICE15	0.000	0.000	0.000	
ALPHA				
	S1	PHYCAT16	PRAFAC	CHOICE15
	<u>0.000</u>	<u>0.000</u>	<u>-0.078</u>	<u>2.878</u>
BETA				
	S1	PHYCAT16	PRAFAC	CHOICE15
S1	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
PSI				
	S1	PHYCAT16	PRAFAC	CHOICE15
S1	<u>1.000</u>	<u>0.000</u>	<u>0.480</u>	<u>0.625</u>
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.480	
CHOICE15	0.000	0.000	0.000	0.625

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity

Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.107209D-03				
2	0.481784D-04	0.448455D-03			
3	0.100709D-04	0.981932D-04	0.328538D-03		
4	0.172122D-04	0.155880D-03	0.108475D-03	0.905672D-03	
5	-0.148606D-04	-0.173316D-03	-0.105667D-03	-0.163202D-03	0.769685D-03
6	-0.246250D-04	-0.583123D-04	-0.114938D-03	0.105960D-03	0.726549D-04
7	0.728297D-05	-0.201781D-04	0.525127D-05	0.125512D-04	-0.224439D-04
8	-0.118389D-04	-0.417046D-04	-0.363307D-04	-0.619638D-05	0.378865D-04
9	0.507386D-05	0.234915D-05	-0.132520D-04	-0.184399D-04	-0.584155D-05
10	0.173838D-04	-0.794631D-05	0.108694D-04	-0.196346D-04	-0.166923D-04
11	0.372751D-06	0.976516D-05	0.611027D-05	0.595784D-05	-0.165781D-05
12	-0.101292D-05	0.532336D-05	0.895190D-05	0.933964D-06	-0.349676D-05
13	0.739552D-06	-0.833337D-05	-0.168184D-04	-0.287376D-04	-0.123170D-04
14	0.860310D-06	-0.416622D-05	-0.977077D-06	-0.290966D-05	0.896393D-05
15	0.660334D-05	-0.322610D-05	-0.172177D-04	0.814313D-05	0.273574D-04
16	0.581673D-05	0.135322D-04	0.221030D-05	0.127441D-04	-0.129383D-04
17	0.107035D-05	0.401434D-05	0.435960D-05	-0.629355D-05	0.382600D-05
18	0.114049D-06	0.578067D-05	-0.568954D-06	0.225929D-04	0.254621D-05
19	0.104028D-04	-0.102818D-04	-0.504296D-06	-0.286143D-04	0.159677D-05
20	-0.538078D-05	0.164756D-04	0.244006D-05	0.189097D-04	-0.161336D-04
21	-0.456168D-05	-0.226269D-05	-0.109277D-05	-0.579775D-05	0.306374D-05
22	0.339405D-05	0.145404D-04	-0.103285D-04	-0.165244D-04	-0.986910D-07
23	0.414382D-05	-0.465331D-05	-0.114508D-04	-0.204905D-04	-0.209794D-04
24	0.364521D-05	0.160607D-04	0.314606D-05	0.931963D-05	-0.508145D-05
25	-0.444913D-05	0.291366D-04	-0.392097D-04	-0.228117D-04	0.319205D-04
26	0.663019D-05	-0.536309D-05	0.474709D-06	-0.762296D-06	0.810016D-05
27	0.406818D-05	-0.115209D-05	0.176404D-04	0.118437D-04	0.218727D-04
28	-0.186635D-04	0.961782D-05	-0.393902D-05	0.288366D-05	-0.106497D-04
29	0.126584D-04	0.311319D-05	0.992500D-05	-0.920145D-06	-0.651836D-05
30	0.638729D-05	-0.398164D-05	0.173235D-04	0.911180D-05	-0.278545D-04
31	-0.431655D-06	-0.109010D-04	-0.329541D-04	-0.242968D-04	-0.205207D-04
32	0.808655D-05	0.231288D-04	0.128490D-04	0.103454D-04	0.138164D-04
33	0.279981D-04	-0.268963D-05	-0.115518D-03	-0.308752D-04	0.473049D-04

34	-0.585715D-05	-0.888959D-04	-0.734716D-04	-0.149071D-03	0.665426D-04
35	0.659661D-05	0.495095D-05	-0.331727D-05	0.440874D-04	0.261012D-04
36	-0.642809D-05	-0.994968D-05	0.284212D-04	-0.888977D-05	-0.465474D-05
37	0.708155D-04	-0.217110D-04	-0.793798D-04	0.314050D-04	-0.725639D-04
38	-0.362430D-05	-0.433377D-06	-0.236366D-05	0.433086D-05	-0.204964D-06
39	-0.224132D-05	0.904801D-05	0.342020D-05	-0.129205D-04	-0.331201D-06
40	0.390782D-04	-0.952598D-04	-0.724099D-04	0.584510D-04	0.179657D-03
41	0.485118D-04	0.119776D-03	0.483211D-04	0.308092D-04	-0.278665D-04
42	0.801199D-05	0.727524D-05	-0.160365D-04	-0.184206D-04	0.550903D-05
43	0.204791D-03	-0.418712D-04	-0.203797D-03	0.606511D-04	-0.216364D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.135342D-01				
7	-0.704649D-03	0.270696D-02			
8	-0.124687D-03	-0.389147D-03	0.312258D-02		
9	0.122364D-04	-0.379476D-03	-0.377430D-03	0.120768D-02	
10	0.858695D-04	0.339852D-03	0.117252D-03	0.120706D-03	0.147073D-02
11	-0.187896D-04	-0.576997D-05	0.752288D-05	-0.183430D-05	-0.779293D-05
12	-0.498067D-04	-0.116808D-04	-0.184524D-04	-0.254768D-05	-0.127202D-05
13	-0.598514D-04	0.103936D-04	0.595598D-04	-0.215577D-04	-0.133927D-04
14	-0.267752D-04	-0.276994D-04	0.219272D-04	0.760248D-05	-0.128340D-04
15	0.855316D-04	0.116758D-04	-0.574658D-05	-0.571059D-05	0.112487D-04
16	0.585617D-04	0.664768D-04	-0.251818D-04	-0.365449D-05	0.332222D-04
17	-0.445957D-04	0.410569D-05	-0.903446D-05	-0.128240D-05	0.113278D-04
18	-0.123724D-03	0.312385D-04	0.217413D-05	-0.142151D-04	0.773894D-05
19	0.196666D-04	-0.324184D-04	0.245529D-04	-0.927215D-05	-0.221860D-04
20	-0.864462D-04	0.731684D-04	0.346541D-05	0.117557D-04	0.588600D-04
21	-0.270499D-04	0.265277D-05	0.200784D-04	0.446218D-05	0.243513D-04
22	-0.436100D-04	0.232457D-04	0.102088D-03	-0.265279D-04	0.514929D-04
23	-0.409955D-04	-0.114070D-03	0.123073D-03	0.107894D-04	-0.644603D-04
24	-0.439841D-04	0.871494D-05	-0.119408D-04	0.228674D-04	0.365618D-04
25	-0.447951D-04	0.793023D-04	-0.172290D-04	0.154795D-04	0.639486D-04
26	0.211335D-04	-0.137967D-04	-0.135071D-04	0.997360D-05	-0.871227D-06
27	0.105594D-03	0.648261D-06	-0.300453D-04	0.488191D-05	-0.881014D-05
28	0.402307D-05	-0.256032D-04	-0.876174D-04	0.106875D-04	-0.117549D-04
29	0.800861D-04	-0.769531D-04	0.143935D-04	0.405559D-05	-0.320529D-04
30	-0.902671D-04	-0.530973D-04	-0.114378D-04	-0.140690D-04	-0.625620D-04
31	0.288913D-04	0.561956D-04	0.132828D-04	0.136897D-04	0.286461D-04
32	-0.616641D-04	0.638660D-04	0.182154D-03	0.144379D-03	-0.126009D-03
33	0.345739D-03	-0.783070D-04	0.437655D-03	-0.241625D-03	0.118504D-03
34	-0.584619D-04	0.334716D-04	0.687595D-05	-0.388868D-04	0.715618D-05



35	-0.848904D-04	-0.242280D-04	0.948221D-04	-0.811382D-04	0.998746D-05
36	-0.448646D-04	0.699027D-04	-0.584726D-04	-0.373977D-04	0.101540D-04
37	0.484306D-03	-0.230516D-03	0.102310D-02	0.137136D-03	0.166511D-03
38	0.241544D-04	0.867641D-05	0.196090D-04	-0.810390D-06	-0.577973D-05
39	-0.146371D-04	0.187317D-04	-0.158219D-04	-0.154211D-04	0.266423D-04
40	0.511721D-03	0.547923D-03	-0.442356D-03	-0.323545D-03	0.186823D-03
41	-0.473960D-04	-0.545361D-04	0.759448D-05	0.826677D-04	0.929659D-04
42	-0.135565D-04	-0.209193D-04	0.489197D-04	-0.242172D-04	0.132169D-04
43	0.783401D-03	-0.785169D-03	0.295394D-02	0.402058D-03	0.449322D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.329616D-04				
12	0.152826D-04	0.780588D-04			
13	0.637452D-05	0.635527D-04	0.568279D-03		
14	-0.660644D-05	-0.157985D-04	-0.887928D-05	0.144750D-03	
15	-0.227648D-06	-0.228924D-04	-0.123309D-03	0.712067D-04	0.559775D-03
16	0.452714D-05	-0.643339D-06	0.256918D-04	-0.727118D-04	-0.263876D-03
17	0.404945D-05	0.151155D-04	0.268967D-05	-0.107912D-04	-0.461091D-05
18	0.356488D-05	0.161723D-04	0.121215D-03	-0.338084D-05	-0.677635D-04
19	0.201382D-05	-0.279928D-05	-0.250983D-04	0.135362D-04	0.122469D-03
20	0.774776D-06	0.166442D-05	0.122789D-04	-0.115650D-05	-0.208328D-04
21	0.267398D-05	0.224717D-04	0.136678D-04	-0.192285D-04	0.468223D-05
22	0.164340D-05	0.162571D-04	0.197980D-03	-0.131593D-04	-0.101369D-03
23	-0.611231D-05	-0.422293D-05	-0.187978D-04	0.321609D-04	0.165691D-03
24	-0.215561D-05	0.908141D-05	0.553501D-04	-0.925087D-05	-0.355091D-04
25	-0.296480D-05	0.551000D-05	0.440047D-04	-0.204783D-04	-0.316574D-04
26	-0.140465D-05	-0.238435D-04	-0.130105D-04	0.172339D-04	0.186036D-04
27	-0.213653D-05	-0.129999D-04	-0.189094D-03	0.893551D-05	0.997388D-04
28	0.749454D-06	-0.403178D-05	0.524495D-04	0.156474D-05	-0.200957D-03
29	-0.297864D-05	-0.252910D-05	-0.583498D-04	0.587752D-05	0.332130D-04
30	0.235211D-05	0.974259D-05	-0.518937D-04	0.239138D-04	0.434889D-04
31	0.503307D-05	0.124472D-04	0.920004D-04	-0.236334D-04	-0.605594D-04
32	0.149712D-05	-0.213913D-04	-0.253682D-04	0.162191D-05	-0.383187D-04
33	-0.240382D-04	-0.118433D-03	0.691690D-04	0.385455D-04	-0.133325D-03
34	0.679729D-05	-0.174857D-05	0.612979D-04	0.663151D-05	0.186265D-05
35	-0.414640D-05	0.345301D-05	0.574066D-06	0.329060D-05	-0.426450D-04
36	-0.172783D-05	-0.146121D-04	0.195101D-04	-0.443425D-05	-0.205791D-04
37	0.544264D-04	-0.667039D-06	0.102887D-03	0.198265D-03	0.928342D-04
38	-0.460991D-06	-0.109786D-05	0.449885D-05	-0.342118D-05	0.685672D-06
39	0.255552D-05	0.133943D-05	0.410378D-05	0.947717D-07	-0.561637D-05
40	-0.394842D-04	-0.599512D-04	-0.106344D-03	0.487974D-04	0.241197D-04

41	0.801409D-05	0.196873D-04	0.806241D-04	-0.373995D-04	-0.871523D-04
42	-0.156160D-08	0.428061D-06	-0.230712D-05	-0.242809D-05	0.265577D-04
43	0.154343D-03	-0.384774D-05	0.345551D-03	0.588842D-03	0.243035D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.207501D-02				
17	0.959521D-05	0.512387D-04			
18	0.188244D-04	0.268700D-04	0.230909D-03		
19	-0.177906D-03	-0.919043D-05	-0.562372D-04	0.432906D-03	
20	0.601987D-04	0.102266D-04	0.871336D-04	-0.886211D-04	0.336638D-03
21	-0.976541D-05	0.191112D-04	0.107179D-04	0.843326D-05	0.520606D-05
22	0.375819D-04	0.105666D-04	0.103605D-03	-0.244231D-04	0.257940D-04
23	-0.351845D-03	-0.563780D-05	-0.463441D-04	0.155280D-03	-0.343716D-04
24	0.280212D-05	0.718976D-05	0.838348D-04	-0.717622D-04	0.124419D-03
25	0.215556D-04	-0.243022D-05	0.548600D-04	-0.237630D-04	0.274958D-04
26	-0.167133D-04	-0.160737D-04	-0.612071D-05	-0.289267D-05	-0.104758D-05
27	-0.567728D-04	-0.101574D-04	-0.843614D-04	0.203969D-04	-0.264304D-04
28	0.299762D-03	0.198246D-05	0.294229D-04	-0.140967D-03	0.204184D-04
29	-0.118766D-04	-0.423795D-05	-0.894786D-04	0.731970D-04	-0.105051D-03
30	-0.643937D-04	-0.172319D-05	-0.534321D-04	0.618849D-05	-0.321289D-04
31	0.450658D-04	0.568253D-05	0.519024D-04	-0.436442D-04	0.435761D-04
32	0.707425D-04	-0.486863D-05	-0.320178D-05	0.948804D-05	0.143546D-05
33	0.678633D-04	-0.433743D-04	0.348307D-04	0.363197D-04	0.508689D-04
34	-0.121296D-03	0.730473D-05	0.263285D-04	0.428453D-04	0.194198D-04
35	0.704197D-04	-0.115217D-04	0.216170D-05	-0.394646D-04	0.243598D-04
36	0.416461D-04	-0.668629D-05	-0.143523D-04	-0.168486D-05	-0.360796D-04
37	0.899183D-04	0.570670D-05	-0.446195D-04	-0.196902D-03	0.342144D-04
38	-0.384410D-05	0.121933D-05	0.316411D-05	0.316851D-05	0.225628D-05
39	0.161630D-04	-0.475184D-06	-0.244311D-05	-0.361353D-05	-0.109721D-05
40	0.127852D-03	0.452331D-04	-0.112644D-05	0.944197D-04	-0.987181D-04
41	0.445187D-04	0.249306D-04	0.381387D-05	-0.384476D-04	0.245698D-04
42	-0.336896D-04	0.152569D-05	0.982356D-05	0.400400D-04	0.113461D-04
43	0.231833D-03	0.123337D-04	-0.968354D-04	-0.544850D-03	0.108168D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.139584D-03				
22	0.595384D-04	0.580028D-03			
23	-0.100478D-04	-0.134345D-03	0.100297D-02		

24	0.170085D-04	0.142176D-03	-0.111801D-03	0.416335D-03	
25	0.118378D-04	0.364318D-03	-0.238471D-03	0.290331D-03	0.207107D-02
26	-0.252559D-04	-0.150564D-04	0.855020D-05	-0.635510D-05	0.208298D-05
27	-0.133603D-04	-0.144001D-03	0.225069D-04	-0.500813D-04	-0.686723D-04
28	0.221560D-05	0.556676D-04	-0.205075D-03	0.464969D-04	0.182695D-04
29	-0.890830D-06	-0.543889D-04	0.269322D-04	-0.985064D-04	-0.610457D-04
30	-0.801334D-05	-0.232854D-03	0.138946D-03	-0.158838D-03	-0.454776D-03
31	0.930975D-05	0.767474D-04	-0.642401D-04	0.686801D-04	0.903586D-04
32	-0.189429D-04	-0.630550D-04	0.164946D-04	-0.253739D-04	-0.323920D-04
33	-0.216415D-04	0.119520D-03	-0.495208D-05	0.966816D-05	0.152492D-03
34	-0.216490D-05	-0.211505D-04	0.101291D-03	0.444861D-04	-0.852918D-04
35	-0.173754D-04	-0.548964D-05	0.703294D-05	0.435918D-05	0.308626D-04
36	-0.828670D-05	-0.468789D-06	-0.684852D-04	0.100322D-04	0.933890D-04
37	-0.129097D-03	0.178033D-03	-0.870762D-04	0.469947D-04	0.177359D-03
38	-0.369287D-06	-0.125175D-05	0.467739D-06	0.145667D-05	-0.261644D-05
39	0.687552D-06	-0.578178D-05	-0.461101D-05	-0.435890D-05	0.717841D-06
40	0.197713D-03	-0.130273D-03	-0.524937D-04	0.250934D-03	-0.297475D-03
41	-0.426503D-04	-0.645746D-05	-0.923057D-04	0.648275D-04	-0.670576D-04
42	0.188367D-04	0.199919D-04	0.347382D-04	0.199894D-04	0.519997D-04
43	-0.354724D-03	0.541342D-03	-0.239165D-03	0.171242D-03	0.448842D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.112211D-03				
27	0.497636D-04	0.453404D-03			
28	-0.891092D-05	-0.117145D-03	0.918918D-03		
29	0.536282D-05	0.109127D-03	-0.106594D-03	0.357021D-03	
30	-0.402850D-05	0.148654D-03	-0.155390D-03	0.138877D-03	0.909321D-03
31	-0.100907D-04	-0.275079D-03	0.218306D-03	-0.176430D-03	-0.302828D-03
32	0.289299D-04	0.114973D-04	-0.301689D-04	-0.155222D-04	0.173390D-04
33	0.848230D-04	0.405333D-05	0.732906D-04	0.817615D-04	0.929427D-04
34	-0.136064D-04	-0.124869D-04	-0.306277D-04	0.848951D-05	-0.939198D-05
35	0.175853D-04	0.250286D-04	-0.107671D-04	0.573768D-05	0.189781D-04
36	0.156510D-04	0.213026D-04	-0.343543D-04	0.274690D-04	-0.236385D-04
37	0.916756D-04	0.377463D-04	0.126284D-03	-0.116849D-04	0.555471D-04
38	-0.128836D-05	-0.189679D-05	0.401087D-05	-0.147202D-05	-0.178350D-05
39	-0.796066D-06	-0.409240D-05	0.875235D-05	0.274754D-05	0.107979D-04
40	0.970223D-05	0.585216D-04	-0.573204D-06	-0.253459D-04	-0.125857D-03
41	-0.333054D-04	0.195243D-04	0.521919D-04	0.345777D-04	-0.253758D-04
42	-0.354955D-05	0.696283D-06	-0.320873D-04	0.620021D-05	0.192452D-04
43	0.256529D-03	0.531092D-04	0.348542D-03	-0.479983D-04	0.170381D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.135451D-02				
32	0.388540D-04	0.159364D-02			
33	0.875266D-04	-0.271231D-04	0.236645D-01		
34	0.203129D-04	-0.359562D-04	-0.405694D-03	0.319540D-02	
35	-0.308046D-04	0.221803D-03	0.245890D-03	0.107531D-03	0.146111D-02
36	0.535240D-05	0.898447D-04	0.491114D-04	0.763104D-04	-0.160385D-04
37	0.433503D-03	-0.151358D-03	0.267184D-03	-0.287793D-03	-0.345256D-04
38	0.109452D-04	0.211997D-04	-0.133199D-04	0.112605D-04	-0.310184D-04
39	-0.438998D-05	-0.153958D-05	0.108672D-03	-0.108557D-04	-0.927174D-05
40	0.284030D-03	0.212869D-03	0.776519D-03	-0.674091D-03	-0.552820D-03
41	-0.341701D-05	-0.205988D-04	-0.309212D-03	0.321924D-03	0.315830D-04
42	-0.389249D-05	0.171266D-04	0.843666D-04	0.294449D-04	0.309940D-04
43	0.130339D-02	-0.404387D-03	0.463243D-03	-0.797025D-03	-0.659496D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.171700D-02				
37	-0.568098D-03	0.342390D-01			
38	0.490442D-05	0.153499D-04	0.754130D-04		
39	-0.114517D-04	-0.928219D-04	-0.121238D-05	0.113563D-03	
40	0.259024D-03	0.536000D-03	0.410287D-04	0.107893D-03	0.695601D-01
41	0.143487D-03	-0.471960D-03	-0.863710D-05	-0.634780D-05	-0.331357D-03
42	-0.605362D-05	0.531240D-04	0.386524D-05	0.412693D-05	0.178626D-03
43	-0.181170D-02	0.996540D-01	0.291825D-04	-0.293971D-03	0.146560D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	0.511833D-02	
42	0.810232D-04	0.555632D-03
43	-0.132066D-02	0.152804D-03

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			

2	0.220	1.000			
3	0.054	0.256	1.000		
4	0.055	0.245	0.199	1.000	
5	-0.052	-0.295	-0.210	-0.195	1.000
6	-0.020	-0.024	-0.055	0.030	0.023
7	0.014	-0.018	0.006	0.008	-0.016
8	-0.020	-0.035	-0.036	-0.004	0.024
9	0.014	0.003	-0.021	-0.018	-0.006
10	0.044	-0.010	0.016	-0.017	-0.016
11	0.006	0.080	0.059	0.034	-0.010
12	-0.011	0.028	0.056	0.004	-0.014
13	0.003	-0.017	-0.039	-0.040	-0.019
14	0.007	-0.016	-0.004	-0.008	0.027
15	0.027	-0.006	-0.040	0.011	0.042
16	0.012	0.014	0.003	0.009	-0.010
17	0.014	0.026	0.034	-0.029	0.019
18	0.001	0.018	-0.002	0.049	0.006
19	0.048	-0.023	-0.001	-0.046	0.003
20	-0.028	0.042	0.007	0.034	-0.032
21	-0.037	-0.009	-0.005	-0.016	0.009
22	0.014	0.029	-0.024	-0.023	0.000
23	0.013	-0.007	-0.020	-0.021	-0.024
24	0.017	0.037	0.009	0.015	-0.009
25	-0.009	0.030	-0.048	-0.017	0.025
26	0.060	-0.024	0.002	-0.002	0.028
27	0.018	-0.003	0.046	0.018	0.037
28	-0.059	0.015	-0.007	0.003	-0.013
29	0.065	0.008	0.029	-0.002	-0.012
30	0.020	-0.006	0.032	0.010	-0.033
31	-0.001	-0.014	-0.049	-0.022	-0.020
32	0.020	0.027	0.018	0.009	0.012
33	0.018	-0.001	-0.041	-0.007	0.011
34	-0.010	-0.074	-0.072	-0.088	0.042
35	0.017	0.006	-0.005	0.038	0.025
36	-0.015	-0.011	0.038	-0.007	-0.004
37	0.037	-0.006	-0.024	0.006	-0.014
38	-0.040	-0.002	-0.015	0.017	-0.001
39	-0.020	0.040	0.018	-0.040	-0.001
40	0.014	-0.017	-0.015	0.007	0.025
41	0.065	0.079	0.037	0.014	-0.014
42	0.033	0.015	-0.038	-0.026	0.008
43	0.037	-0.004	-0.021	0.004	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.116	1.000			
8	-0.019	-0.134	1.000		
9	0.003	-0.210	-0.194	1.000	
10	0.019	0.170	0.055	0.091	1.000
11	-0.028	-0.019	0.023	-0.009	-0.035
12	-0.048	-0.025	-0.037	-0.008	-0.004
13	-0.022	0.008	0.045	-0.026	-0.015
14	-0.019	-0.044	0.033	0.018	-0.028
15	0.031	0.009	-0.004	-0.007	0.012
16	0.011	0.028	-0.010	-0.002	0.019
17	-0.054	0.011	-0.023	-0.005	0.041
18	-0.070	0.040	0.003	-0.027	0.013
19	0.008	-0.030	0.021	-0.013	-0.028
20	-0.040	0.077	0.003	0.018	0.084
21	-0.020	0.004	0.030	0.011	0.054
22	-0.016	0.019	0.076	-0.032	0.056
23	-0.011	-0.069	0.070	0.010	-0.053
24	-0.019	0.008	-0.010	0.032	0.047
25	-0.008	0.033	-0.007	0.010	0.037
26	0.017	-0.025	-0.023	0.027	-0.002
27	0.043	0.001	-0.025	0.007	-0.011
28	0.001	-0.016	-0.052	0.010	-0.010
29	0.036	-0.078	0.014	0.006	-0.044
30	-0.026	-0.034	-0.007	-0.013	-0.054
31	0.007	0.029	0.006	0.011	0.020
32	-0.013	0.031	0.082	0.104	-0.082
33	0.019	-0.010	0.051	-0.045	0.020
34	-0.009	0.011	0.002	-0.020	0.003
35	-0.019	-0.012	0.044	-0.061	0.007
36	-0.009	0.032	-0.025	-0.026	0.006
37	0.022	-0.024	0.099	0.021	0.023
38	0.024	0.019	0.040	-0.003	-0.017
39	-0.012	0.034	-0.027	-0.042	0.065
40	0.017	0.040	-0.030	-0.035	0.018
41	-0.006	-0.015	0.002	0.033	0.034
42	-0.005	-0.017	0.037	-0.030	0.015
43	0.012	-0.028	0.098	0.021	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.301	1.000			
13	0.047	0.302	1.000		
14	-0.096	-0.149	-0.031	1.000	
15	-0.002	-0.110	-0.219	0.250	1.000
16	0.017	-0.002	0.024	-0.133	-0.245
17	0.099	0.239	0.016	-0.125	-0.027
18	0.041	0.120	0.335	-0.018	-0.188
19	0.017	-0.015	-0.051	0.054	0.249
20	0.007	0.010	0.028	-0.005	-0.048
21	0.039	0.215	0.049	-0.135	0.017
22	0.012	0.076	0.345	-0.045	-0.178
23	-0.034	-0.015	-0.025	0.084	0.221
24	-0.018	0.050	0.114	-0.038	-0.074
25	-0.011	0.014	0.041	-0.037	-0.029
26	-0.023	-0.255	-0.052	0.135	0.074
27	-0.017	-0.069	-0.373	0.035	0.198
28	0.004	-0.015	0.073	0.004	-0.280
29	-0.027	-0.015	-0.130	0.026	0.074
30	0.014	0.037	-0.072	0.066	0.061
31	0.024	0.038	0.105	-0.053	-0.070
32	0.007	-0.061	-0.027	0.003	-0.041
33	-0.027	-0.087	0.019	0.021	-0.037
34	0.021	-0.004	0.045	0.010	0.001
35	-0.019	0.010	0.001	0.007	-0.047
36	-0.007	-0.040	0.020	-0.009	-0.021
37	0.051	0.000	0.023	0.089	0.021
38	-0.009	-0.014	0.022	-0.033	0.003
39	0.042	0.014	0.016	0.001	-0.022
40	-0.026	-0.026	-0.017	0.015	0.004
41	0.020	0.031	0.047	-0.043	-0.051
42	0.000	0.002	-0.004	-0.009	0.048
43	0.050	-0.001	0.027	0.091	0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.029	1.000			
18	0.027	0.247	1.000		
19	-0.188	-0.062	-0.178	1.000	

20	0.072	0.078	0.313	-0.232	1.000
21	-0.018	0.226	0.060	0.034	0.024
22	0.034	0.061	0.283	-0.049	0.058
23	-0.244	-0.025	-0.096	0.236	-0.059
24	0.003	0.049	0.270	-0.169	0.332
25	0.010	-0.007	0.079	-0.025	0.033
26	-0.035	-0.212	-0.038	-0.013	-0.005
27	-0.059	-0.067	-0.261	0.046	-0.068
28	0.217	0.009	0.064	-0.224	0.037
29	-0.014	-0.031	-0.312	0.186	-0.303
30	-0.047	-0.008	-0.117	0.010	-0.058
31	0.027	0.022	0.093	-0.057	0.065
32	0.039	-0.017	-0.005	0.011	0.002
33	0.010	-0.039	0.015	0.011	0.018
34	-0.047	0.018	0.031	0.036	0.019
35	0.040	-0.042	0.004	-0.050	0.035
36	0.022	-0.023	-0.023	-0.002	-0.047
37	0.011	0.004	-0.016	-0.051	0.010
38	-0.010	0.020	0.024	0.018	0.014
39	0.033	-0.006	-0.015	-0.016	-0.006
40	0.011	0.024	0.000	0.017	-0.020
41	0.014	0.049	0.004	-0.026	0.019
42	-0.031	0.009	0.027	0.082	0.026
43	0.009	0.003	-0.012	-0.048	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.209	1.000			
23	-0.027	-0.176	1.000		
24	0.071	0.289	-0.173	1.000	
25	0.022	0.332	-0.165	0.313	1.000
26	-0.202	-0.059	0.025	-0.029	0.004
27	-0.053	-0.281	0.033	-0.115	-0.071
28	0.006	0.076	-0.214	0.075	0.013
29	-0.004	-0.120	0.045	-0.256	-0.071
30	-0.022	-0.321	0.145	-0.258	-0.331
31	0.021	0.087	-0.055	0.091	0.054
32	-0.040	-0.066	0.013	-0.031	-0.018
33	-0.012	0.032	-0.001	0.003	0.022
34	-0.003	-0.016	0.057	0.039	-0.033
35	-0.038	-0.006	0.006	0.006	0.018



36	-0.017	0.000	-0.052	0.012	0.050
37	-0.059	0.040	-0.015	0.012	0.021
38	-0.004	-0.006	0.002	0.008	-0.007
39	0.005	-0.023	-0.014	-0.020	0.001
40	0.063	-0.021	-0.006	0.047	-0.025
41	-0.050	-0.004	-0.041	0.044	-0.021
42	0.068	0.035	0.047	0.042	0.048
43	-0.056	0.042	-0.014	0.016	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.221	1.000			
28	-0.028	-0.181	1.000		
29	0.027	0.271	-0.186	1.000	
30	-0.013	0.232	-0.170	0.244	1.000
31	-0.026	-0.351	0.196	-0.254	-0.273
32	0.068	0.014	-0.025	-0.021	0.014
33	0.052	0.001	0.016	0.028	0.020
34	-0.023	-0.010	-0.018	0.008	-0.006
35	0.043	0.031	-0.009	0.008	0.016
36	0.036	0.024	-0.027	0.035	-0.019
37	0.047	0.010	0.023	-0.003	0.010
38	-0.014	-0.010	0.015	-0.009	-0.007
39	-0.007	-0.018	0.027	0.014	0.034
40	0.003	0.010	0.000	-0.005	-0.016
41	-0.044	0.013	0.024	0.026	-0.012
42	-0.014	0.001	-0.045	0.014	0.027
43	0.045	0.005	0.021	-0.005	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.026	1.000			
33	0.015	-0.004	1.000		
34	0.010	-0.016	-0.047	1.000	
35	-0.022	0.145	0.042	0.050	1.000
36	0.004	0.054	0.008	0.033	-0.010
37	0.064	-0.020	0.009	-0.028	-0.005
38	0.034	0.061	-0.010	0.023	-0.093

39	-0.011	-0.004	0.066	-0.018	-0.023
40	0.029	0.020	0.019	-0.045	-0.055
41	-0.001	-0.007	-0.028	0.080	0.012
42	-0.004	0.018	0.023	0.022	0.034
43	0.066	-0.019	0.006	-0.026	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.074	1.000			
38	0.014	0.010	1.000		
39	-0.026	-0.047	-0.013	1.000	
40	0.024	0.011	0.018	0.038	1.000
41	0.048	-0.036	-0.014	-0.008	-0.018
42	-0.006	0.012	0.019	0.016	0.029
43	-0.081	0.997	0.006	-0.051	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.048	1.000	
43	-0.034	0.012	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.014	38
200	1.006	6
300	1.010	43
400	1.015	35

500	1.004	35
600	1.003	18
700	1.002	5
800	1.003	39
900	1.003	37
1000	1.002	14

Improvement in physical health, bullying interaction

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	0.971	0.971	0.971	0.971	
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.963
PRESS15	0.966	0.966	0.966	0.966	0.963
DUTIES15	0.966	0.966	0.966	0.966	0.963

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.966		
PRESS15	0.966	0.966	
DUTIES15	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.173	0.219	-2.338	1.75%	-1.489	-0.520	-0.258
57.000	1.361	-0.662	2.338	1.75%	0.080	0.848	

PHY15	0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15	0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15	0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15	1.312	2.479	1.000	79.02%	1.000	1.000	1.000
1373.000	0.474	6.315	5.000	0.44%	1.000	2.000	
PRESS15	0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15	0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.833	0.117	0.000	0.612	1.063	*
CHOICE15	-0.048	0.034	0.077	-0.117	0.018	
DUTIES15	0.033	0.039	0.195	-0.040	0.111	
PRESS15	-0.002	0.034	0.469	-0.069	0.064	
KES15	0.165	0.052	0.000	0.060	0.262	*
KES15 WITH						
PHY15	0.071	0.009	0.000	0.054	0.089	*
CHOICE15	-0.136	0.024	0.000	-0.183	-0.090	*

BULLY15	0.127	0.015	0.000	0.098	0.158	*
PRESS15	0.206	0.024	0.000	0.161	0.255	*
DUTIES15	-0.207	0.021	0.000	-0.247	-0.164	*
PHY15 WITH						
CHOICE15	-0.032	0.012	0.002	-0.057	-0.010	*
BULLY15	0.013	0.007	0.040	-0.002	0.026	
PRESS15	0.015	0.012	0.107	-0.008	0.037	
DUTIES15	-0.009	0.011	0.196	-0.029	0.012	
CHOICE15 WITH						
BULLY15	-0.121	0.021	0.000	-0.164	-0.082	*
PRESS15	-0.183	0.032	0.000	-0.248	-0.122	*
DUTIES15	0.162	0.030	0.000	0.105	0.223	*
BULLY15 WITH						
PRESS15	0.174	0.020	0.000	0.132	0.213	*
DUTIES15	-0.137	0.019	0.000	-0.174	-0.102	*
PRESS15 WITH						
DUTIES15	-0.244	0.030	0.000	-0.305	-0.183	*
Means						
PHY15	0.000	0.010	0.499	-0.019	0.021	
KES15	0.000	0.021	0.499	-0.040	0.043	
CHOICE15	0.001	0.029	0.484	-0.056	0.056	
PRESS15	0.000	0.031	0.490	-0.062	0.056	
DUTIES15	0.001	0.028	0.494	-0.054	0.053	
Variances						
PHY15	0.154	0.006	0.000	0.144	0.166	*
KES15	0.615	0.024	0.000	0.569	0.660	*
CHOICE15	1.252	0.048	0.000	1.167	1.351	*
BULLY15	0.455	0.018	0.000	0.421	0.492	*
PRESS15	1.208	0.046	0.000	1.119	1.301	*
DUTIES15	0.977	0.037	0.000	0.908	1.052	*
Between Level						
S1 ON						
PRAFAC	-0.072	0.081	0.184	-0.249	0.078	
PHYCAT16 ON						
PRAFAC	-0.054	0.042	0.094	-0.135	0.032	

BULLY15	0.206	0.291	0.241	-0.378	0.747	
PRAFAC WITH BULLY15	-0.003	0.054	0.477	-0.109	0.105	
Means						
PRAFAC	-0.172	0.154	0.138	-0.468	0.136	
BULLY15	1.302	0.044	0.000	1.214	1.391	*
Intercepts						
S1	0.046	0.081	0.264	-0.112	0.196	
Thresholds						
PHYCAT16\$1	-0.127	0.382	0.356	-0.899	0.573	
Variances						
PRAFAC	1.367	0.263	0.000	0.993	1.993	*
BULLY15	0.066	0.019	0.000	0.039	0.112	*
Residual Variances						
PHYCAT16	0.007	0.010	0.000	0.000	0.037	*
S1	0.036	0.073	0.000	0.002	0.260	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON BULLY15	0.036	0.045	0.208	-0.053	0.125	
PHYCAT16 ON						
PHY15	0.301	0.039	0.000	0.222	0.375	*
CHOICE15	-0.049	0.034	0.068	-0.119	0.015	
DUTIES15	0.031	0.035	0.191	-0.037	0.100	
PRESS15	-0.002	0.035	0.483	-0.069	0.068	
KES15	0.118	0.037	0.000	0.043	0.192	*



KES15	WITH					
PHY15		0.230	0.026	0.000	0.179	0.280 *
CHOICE15		-0.154	0.026	0.000	-0.204	-0.102 *
BULLY15		0.240	0.026	0.000	0.189	0.290 *
PRESS15		0.240	0.025	0.000	0.191	0.290 *
DUTIES15		-0.267	0.025	0.000	-0.313	-0.216 *
PHY15	WITH					
CHOICE15		-0.074	0.027	0.003	-0.128	-0.023 *
BULLY15		0.047	0.027	0.044	-0.006	0.098
PRESS15		0.036	0.028	0.104	-0.019	0.088
DUTIES15		-0.024	0.028	0.200	-0.077	0.032
CHOICE15	WITH					
BULLY15		-0.160	0.027	0.000	-0.211	-0.107 *
PRESS15		-0.149	0.026	0.000	-0.197	-0.095 *
DUTIES15		0.146	0.026	0.000	0.093	0.196 *
BULLY15	WITH					
PRESS15		0.234	0.026	0.000	0.182	0.284 *
DUTIES15		-0.205	0.027	0.000	-0.254	-0.152 *
PRESS15	WITH					
DUTIES15		-0.224	0.026	0.000	-0.274	-0.173 *
Means						
PHY15		0.000	0.027	0.498	-0.051	0.054
KES15		0.000	0.026	0.497	-0.052	0.051
CHOICE15		0.000	0.026	0.493	-0.050	0.052
PRESS15		0.000	0.028	0.492	-0.054	0.052
DUTIES15		0.000	0.028	0.495	-0.056	0.054
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
S1	ON					
PRAFAC		-0.389	0.371	0.184	-0.924	0.421

PHYCAT16	ON					
PRAFAC		-0.476	0.312	0.094	-0.911	0.314
BULLY15		0.427	0.453	0.241	-0.712	0.941
PRAFAC	WITH					
BULLY15		-0.009	0.169	0.477	-0.325	0.315
Means						
PRAFAC		-0.145	0.131	0.138	-0.409	0.112
BULLY15		5.076	0.700	0.000	3.835	6.644 *
Intercepts						
S1		0.202	0.452	0.264	-0.555	1.222
Variances						
PRAFAC		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.393	0.268	0.000	0.016	0.957 *
S1		0.826	0.255	0.000	0.146	1.000 *

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.159	0.032	0.000	0.103	0.231

#### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.607	0.268	0.000	0.043	0.984

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.174	0.255	0.000	0.000	0.854

# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	<u>0</u>	
DUTIES15	0	0

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>0</u>

ALPHA

	PRESS15	DUTIES15
	<u>4</u>	<u>5</u>

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0

BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU

PHYCAT16
43

NU				
	PHYCAT16	PRAFAC	BULLY15	
	<hr/> 0	<hr/> 0	<hr/> 0	
LAMBDA				
	S1	PHYCAT16	PRAFAC	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PRAFAC	0	0	0	0
BULLY15	0	0	0	0
THETA				
	PHYCAT16	PRAFAC	BULLY15	
PHYCAT16	<hr/> 0	<hr/>	<hr/>	
PRAFAC	0	0		
BULLY15	0	0	0	
ALPHA				
	S1	PHYCAT16	PRAFAC	BULLY15
	<hr/> 32	<hr/> 0	<hr/> 33	<hr/> 34
BETA				
	S1	PHYCAT16	PRAFAC	BULLY15
S1	<hr/> 0	<hr/> 0	<hr/> 35	<hr/> 0
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
BULLY15	0	0	0	0
PSI				
	S1	PHYCAT16	PRAFAC	BULLY15
S1	<hr/> 38	<hr/>	<hr/>	<hr/>
PHYCAT16	0	39		
PRAFAC	0	0	40	

BULLY15	0	0	41	42
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STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000

PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA		
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000



DUTIES15	0.000	0.000	0.000	0.000	0.000
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BETA

PRESS15	DUTIES15
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PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
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PHYCAT16	1.000				
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
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PRESS15	0.604	
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU

PHYCAT16
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-0.311
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NU

	PHYCAT16	PRAFAC	BULLY15	
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	
	LAMBDA			
	S1	PHYCAT16	PRAFAC	BULLY15
PHYCAT16	<hr/> 0.000	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	1.000
	THETA			
	PHYCAT16	PRAFAC	BULLY15	
PHYCAT16	<hr/> 0.000	<hr/>	<hr/>	
PRAFAC	0.000	0.000		
BULLY15	0.000	0.000	0.000	
	ALPHA			
	S1	PHYCAT16	PRAFAC	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> -0.078	<hr/> 1.312
	BETA			
	S1	PHYCAT16	PRAFAC	BULLY15
S1	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
	PSI			
	S1	PHYCAT16	PRAFAC	BULLY15
S1	<hr/> 1.000	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.480	
BULLY15	0.000	0.000	0.000	0.237

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity

Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.107548D-03				
2	0.491959D-04	0.437295D-03			
3	-0.194035D-04	-0.852640D-04	0.857230D-03		
4	0.188036D-04	0.152715D-03	-0.159373D-03	0.937210D-03	
5	-0.154742D-04	-0.163508D-03	0.122111D-03	-0.172014D-03	0.764130D-03
6	-0.264618D-04	-0.687516D-04	-0.109944D-03	0.124369D-03	0.502650D-04
7	0.462491D-05	-0.391047D-04	0.542483D-05	-0.143136D-05	-0.115088D-04
8	-0.195029D-05	-0.312742D-04	-0.118476D-04	0.146558D-04	-0.263391D-05
9	0.272415D-05	-0.213298D-05	-0.299765D-04	-0.335073D-05	-0.220156D-04
10	0.181054D-04	0.281770D-05	0.251800D-04	-0.293131D-04	-0.925452D-05
11	0.561202D-06	0.107932D-04	0.367876D-05	0.517403D-05	-0.139406D-05
12	-0.738817D-06	0.696238D-05	0.121683D-04	-0.395093D-06	-0.255315D-05
13	0.185072D-05	-0.183408D-05	-0.255334D-04	-0.128123D-04	-0.239451D-04
14	0.928022D-06	-0.397904D-05	0.575130D-06	0.110056D-06	0.621424D-05
15	0.675262D-05	-0.426756D-05	-0.218368D-04	0.147931D-04	0.206165D-04
16	0.881675D-05	0.101493D-04	-0.155930D-04	0.949441D-05	-0.588454D-05
17	0.691918D-06	0.362886D-05	0.277532D-05	-0.798417D-05	0.509288D-05
18	-0.254743D-06	0.472596D-05	-0.932609D-05	0.256934D-04	-0.101506D-05
19	0.108853D-04	-0.213033D-05	-0.529651D-06	-0.101979D-04	-0.660835D-05
20	-0.729335D-05	0.903429D-05	0.210971D-05	0.110255D-04	-0.127290D-04
21	-0.439539D-05	-0.986589D-06	-0.862532D-06	-0.408918D-05	0.115502D-05
22	0.300201D-05	0.118492D-04	-0.214092D-04	-0.134815D-04	-0.350216D-05
23	0.516340D-05	0.350877D-05	-0.195582D-04	-0.476725D-05	-0.361558D-04
24	0.445796D-05	0.146119D-04	-0.753298D-05	0.545995D-05	-0.268718D-05
25	-0.554141D-05	0.224479D-04	-0.668818D-04	-0.128935D-04	0.252629D-04
26	0.668512D-05	-0.500488D-05	0.191230D-05	-0.143428D-05	0.874758D-05
27	0.487549D-05	0.231022D-05	0.271208D-04	0.939204D-05	0.241983D-04
28	-0.179880D-04	0.134233D-04	-0.147935D-04	0.147287D-04	-0.135460D-04
29	0.134122D-04	0.115827D-04	0.101116D-04	-0.108509D-05	-0.104288D-04
30	0.759836D-05	0.314050D-05	0.281173D-04	0.102704D-04	-0.285959D-04
31	-0.902040D-06	-0.138280D-04	-0.585251D-04	-0.142051D-04	-0.273390D-04
32	0.175344D-04	0.325432D-04	0.633720D-04	0.692813D-05	0.213803D-04
33	0.216272D-04	-0.290312D-04	-0.106140D-03	-0.210226D-04	0.495825D-04

34	0.195919D-04	0.931411D-04	-0.682404D-04	0.865751D-04	-0.155973D-03
35	0.335660D-05	-0.142683D-04	0.265276D-04	0.106989D-03	0.457542D-04
36	-0.828614D-05	0.683045D-06	0.730568D-04	-0.371032D-04	0.467150D-05
37	0.105353D-03	-0.449964D-05	-0.907743D-04	-0.279243D-04	-0.134671D-03
38	-0.165041D-04	0.482295D-04	-0.471831D-04	0.403693D-04	-0.450977D-04
39	-0.511870D-05	0.376174D-06	0.901402D-06	-0.200245D-04	0.610706D-05
40	0.173634D-04	-0.172313D-03	-0.747028D-04	0.530197D-05	0.198272D-03
41	0.224830D-04	0.820721D-04	0.332040D-04	0.335485D-04	-0.307866D-04
42	0.998210D-05	0.785313D-05	-0.173516D-04	-0.731257D-05	-0.610272D-06
43	0.148709D-03	0.334343D-04	-0.119613D-03	-0.292843D-04	-0.182036D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.136651D-01				
7	-0.709714D-03	0.273423D-02			
8	0.336592D-04	0.130035D-03	0.113630D-02		
9	0.263060D-04	-0.373380D-03	0.511764D-04	0.116644D-02	
10	0.696984D-04	0.347499D-03	-0.132258D-03	0.128811D-03	0.151775D-02
11	-0.226821D-04	-0.713467D-05	0.815635D-05	-0.118935D-05	-0.966799D-05
12	-0.536048D-04	-0.697874D-05	-0.564233D-05	-0.237093D-05	0.410027D-06
13	-0.730559D-04	0.191602D-04	0.560507D-04	-0.846961D-05	-0.254331D-04
14	-0.292523D-04	-0.254978D-04	-0.742982D-05	0.881332D-05	-0.180737D-04
15	0.947382D-04	0.223700D-04	-0.678414D-05	0.379844D-05	0.145894D-05
16	0.406496D-04	0.343958D-04	-0.522912D-04	-0.197420D-04	0.568021D-04
17	-0.461943D-04	0.257836D-05	-0.753278D-05	-0.347204D-05	0.110820D-04
18	-0.122857D-03	0.267231D-04	0.250556D-04	-0.113506D-04	0.244425D-05
19	0.496307D-04	-0.312058D-04	0.169172D-04	-0.154831D-04	-0.238833D-04
20	-0.107628D-03	0.691514D-04	0.139792D-04	0.147709D-04	0.547579D-04
21	-0.304652D-04	0.863675D-05	0.154137D-04	0.123298D-04	0.143027D-04
22	-0.378806D-04	0.359611D-04	0.624086D-04	-0.357353D-05	0.282194D-04
23	-0.167395D-04	-0.989650D-04	0.275514D-04	0.237351D-04	-0.841989D-04
24	-0.690232D-04	0.108637D-04	-0.642304D-05	0.297585D-04	0.312213D-04
25	-0.464884D-04	0.677674D-04	-0.160635D-04	0.222652D-05	0.729861D-04
26	0.243128D-04	-0.158149D-04	-0.159932D-04	0.398174D-05	0.817821D-05
27	0.120720D-03	0.669145D-05	-0.185288D-04	0.528176D-05	-0.347425D-05
28	0.205305D-04	-0.211042D-04	-0.273619D-04	0.712650D-05	-0.404951D-05
29	0.936269D-04	-0.704843D-04	-0.674298D-06	0.781515D-05	-0.349290D-04
30	-0.904767D-04	-0.533227D-04	0.214629D-04	-0.101784D-04	-0.618816D-04
31	0.225261D-04	0.400150D-04	0.180967D-04	-0.301877D-05	0.273542D-04
32	-0.109181D-03	-0.521949D-03	0.949442D-04	-0.284740D-03	0.173628D-03
33	0.487033D-03	-0.712057D-04	0.122925D-03	-0.197142D-03	0.100368D-03
34	-0.132319D-03	0.572131D-04	0.104296D-04	-0.125294D-04	0.438015D-04

35	-0.134757D-03	0.278469D-04	0.800061D-04	-0.645375D-04	0.189774D-03
36	-0.354648D-04	-0.938122D-05	-0.500196D-04	-0.603796D-04	0.335578D-05
37	-0.567121D-03	0.822429D-04	0.476188D-03	-0.272371D-03	0.247801D-03
38	0.527361D-03	-0.325101D-04	-0.352940D-04	-0.592768D-04	-0.196685D-03
39	-0.359237D-05	0.121198D-04	-0.499575D-05	-0.103831D-04	0.202020D-04
40	0.544912D-03	0.508916D-03	-0.156562D-03	-0.492311D-03	0.198957D-03
41	0.112274D-04	-0.127672D-03	-0.729699D-04	0.752290D-04	0.382043D-04
42	-0.439194D-04	-0.117594D-04	0.362265D-04	-0.172930D-04	-0.193381D-04
43	-0.147164D-02	-0.272083D-04	0.686152D-03	-0.398301D-03	0.292953D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.329411D-04				
12	0.152678D-04	0.781073D-04			
13	0.643916D-05	0.637625D-04	0.568276D-03		
14	-0.706396D-05	-0.162379D-04	-0.825103D-05	0.146785D-03	
15	-0.566657D-06	-0.234091D-04	-0.126878D-03	0.703455D-04	0.568875D-03
16	0.485757D-05	-0.560922D-06	0.237707D-04	-0.804281D-04	-0.269144D-03
17	0.387867D-05	0.152477D-04	0.296431D-05	-0.111391D-04	-0.595256D-05
18	0.389880D-05	0.159262D-04	0.121521D-03	-0.326027D-05	-0.698706D-04
19	0.150989D-05	-0.479698D-05	-0.271461D-04	0.172996D-04	0.124276D-03
20	0.149261D-05	0.199145D-05	0.149377D-04	-0.313461D-06	-0.222242D-04
21	0.270068D-05	0.224565D-04	0.138735D-04	-0.206239D-04	0.480368D-05
22	0.170432D-05	0.163385D-04	0.196979D-03	-0.135022D-04	-0.104656D-03
23	-0.560131D-05	-0.350256D-05	-0.190470D-04	0.362223D-04	0.173109D-03
24	-0.214196D-05	0.837414D-05	0.533066D-04	-0.980744D-05	-0.363662D-04
25	-0.279549D-05	0.572712D-05	0.433135D-04	-0.209872D-04	-0.329668D-04
26	-0.141241D-05	-0.239108D-04	-0.132185D-04	0.173101D-04	0.194182D-04
27	-0.218669D-05	-0.131208D-04	-0.189016D-03	0.910220D-05	0.100043D-03
28	0.120954D-05	-0.464981D-05	0.557195D-04	0.886462D-06	-0.201613D-03
29	-0.313466D-05	-0.229445D-05	-0.591703D-04	0.456090D-05	0.332011D-04
30	0.219207D-05	0.970336D-05	-0.513173D-04	0.227659D-04	0.404729D-04
31	0.519551D-05	0.125889D-04	0.925045D-04	-0.234775D-04	-0.563566D-04
32	-0.341478D-05	-0.420482D-04	-0.102042D-04	0.953026D-05	-0.811584D-04
33	-0.239886D-04	-0.118237D-03	0.715498D-04	0.508340D-04	-0.122432D-03
34	0.288933D-05	0.333697D-05	0.355473D-04	-0.309284D-05	-0.378325D-04
35	-0.116995D-04	0.779810D-05	-0.416409D-05	-0.100820D-04	-0.817519D-04
36	-0.407451D-06	-0.191956D-04	-0.324399D-05	0.290981D-05	-0.184543D-05
37	0.610674D-04	0.255425D-05	0.142657D-03	0.668666D-04	0.241064D-04
38	-0.331312D-05	-0.187042D-04	0.260792D-04	-0.158954D-04	0.191815D-04
39	0.106929D-05	0.115773D-05	0.177416D-05	-0.460310D-05	-0.397841D-05
40	-0.353777D-04	-0.544191D-04	-0.727389D-04	0.473473D-04	0.361030D-04

41	0.650112D-05	0.199064D-04	0.713178D-04	-0.237361D-04	-0.747861D-04
42	-0.111916D-05	-0.434201D-05	-0.579534D-05	-0.180318D-05	0.118198D-04
43	0.764839D-04	0.220394D-05	0.237021D-03	0.966191D-04	-0.329015D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.225659D-02				
17	0.120415D-04	0.505294D-04			
18	0.226909D-04	0.275272D-04	0.228383D-03		
19	-0.192695D-03	-0.126287D-04	-0.648133D-04	0.443823D-03	
20	0.591094D-04	0.103395D-04	0.881330D-04	-0.100350D-03	0.327306D-03
21	-0.956628D-05	0.180168D-04	0.943630D-05	0.751420D-05	0.348426D-05
22	0.418671D-04	0.100875D-04	0.995340D-04	-0.236335D-04	0.252030D-04
23	-0.387776D-03	-0.465955D-05	-0.498555D-04	0.142847D-03	-0.306034D-04
24	0.131228D-04	0.736829D-05	0.834911D-04	-0.862031D-04	0.124003D-03
25	0.165883D-04	-0.216380D-05	0.551332D-04	-0.175755D-04	0.288564D-04
26	-0.195185D-04	-0.156035D-04	-0.590205D-05	-0.475692D-06	-0.976464D-07
27	-0.541868D-04	-0.916378D-05	-0.820913D-04	0.157298D-04	-0.259647D-04
28	0.296535D-03	0.292748D-05	0.306691D-04	-0.140272D-03	0.207341D-04
29	-0.141076D-04	-0.403943D-05	-0.902779D-04	0.796000D-04	-0.103882D-03
30	-0.702389D-04	0.389693D-07	-0.498450D-04	0.578005D-05	-0.295826D-04
31	0.313731D-04	0.564815D-05	0.489048D-04	-0.370822D-04	0.414745D-04
32	0.111376D-03	-0.173318D-04	-0.197303D-04	0.542479D-04	-0.120455D-04
33	0.458423D-04	-0.471820D-04	0.210234D-04	0.479040D-04	0.419613D-04
34	-0.657362D-04	0.981132D-05	0.330466D-04	-0.407073D-04	0.417753D-04
35	0.210035D-03	-0.135507D-04	-0.254920D-05	-0.835653D-04	0.302275D-04
36	0.389339D-04	-0.568778D-05	-0.203882D-04	0.157561D-04	-0.412081D-04
37	0.349538D-03	0.272070D-04	0.952497D-04	-0.163010D-03	-0.395423D-04
38	-0.370323D-04	-0.753803D-05	0.733955D-05	0.699277D-04	-0.440143D-05
39	0.184810D-04	-0.387183D-06	-0.141617D-05	-0.573682D-05	0.314182D-05
40	0.139149D-03	0.418350D-04	-0.262788D-05	0.904797D-04	-0.504428D-04
41	0.863169D-04	0.155849D-04	-0.127715D-05	-0.388300D-04	0.436118D-04
42	-0.338214D-04	-0.779013D-06	0.216219D-05	0.274088D-04	-0.185063D-04
43	0.488241D-03	0.320532D-04	0.150060D-03	-0.193528D-03	-0.374771D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.139645D-03				
22	0.597305D-04	0.579175D-03			
23	-0.117538D-04	-0.141118D-03	0.100464D-02		

24	0.162464D-04	0.141725D-03	-0.103766D-03	0.411999D-03	
25	0.121717D-04	0.363755D-03	-0.254583D-03	0.281236D-03	0.206964D-02
26	-0.253327D-04	-0.150085D-04	0.126408D-04	-0.754414D-05	0.195699D-05
27	-0.134154D-04	-0.143549D-03	0.275938D-04	-0.516031D-04	-0.680450D-04
28	0.181607D-06	0.558778D-04	-0.208657D-03	0.452551D-04	0.214111D-04
29	0.232161D-06	-0.516470D-04	0.318481D-04	-0.986040D-04	-0.621090D-04
30	-0.797502D-05	-0.232315D-03	0.138652D-03	-0.152747D-03	-0.452753D-03
31	0.932099D-05	0.769292D-04	-0.638609D-04	0.660426D-04	0.898115D-04
32	-0.500714D-04	-0.833922D-04	0.295233D-04	-0.719704D-04	-0.286159D-04
33	-0.211314D-04	0.121124D-03	0.164922D-05	0.135603D-04	0.160244D-03
34	-0.460364D-05	-0.136600D-04	0.412829D-04	0.664234D-04	-0.106255D-04
35	-0.469343D-04	-0.104754D-04	0.531110D-04	-0.784126D-05	0.443949D-04
36	-0.138519D-04	-0.169913D-04	-0.305890D-04	0.268472D-05	0.642535D-04
37	0.936258D-06	0.192371D-03	-0.481264D-03	0.344162D-04	0.369085D-03
38	-0.475869D-05	-0.150482D-04	-0.778097D-05	-0.159377D-04	0.546826D-04
39	0.334858D-05	-0.319034D-05	-0.102592D-04	-0.468591D-05	0.260137D-05
40	0.198481D-03	-0.955250D-04	-0.960295D-04	0.228178D-03	-0.325221D-03
41	-0.391478D-04	-0.127631D-04	-0.413190D-04	0.686514D-04	-0.266357D-04
42	0.134575D-04	0.129365D-04	0.345115D-05	0.771462D-05	0.159557D-04
43	0.138052D-04	0.272577D-03	-0.626831D-03	0.623996D-04	0.415276D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.112322D-03				
27	0.498985D-04	0.453296D-03			
28	-0.915363D-05	-0.116288D-03	0.928548D-03		
29	0.376847D-05	0.104988D-03	-0.103659D-03	0.349220D-03	
30	-0.420480D-05	0.148281D-03	-0.164459D-03	0.133430D-03	0.907669D-03
31	-0.101038D-04	-0.275239D-03	0.205343D-03	-0.164589D-03	-0.302191D-03
32	0.543243D-04	0.880961D-05	-0.756533D-04	-0.461055D-04	0.364946D-04
33	0.851384D-04	0.335380D-05	0.877555D-04	0.761959D-04	0.910124D-04
34	-0.145391D-04	-0.194703D-04	0.425559D-04	-0.114260D-04	-0.881705D-05
35	0.324497D-04	0.596321D-04	0.117531D-04	0.203981D-04	0.409729D-04
36	0.241896D-04	0.540657D-04	-0.396232D-04	0.122158D-04	-0.292975D-04
37	0.901946D-04	0.590537D-04	-0.877612D-04	0.332895D-03	0.301124D-03
38	-0.171708D-05	0.219581D-04	0.563354D-04	-0.344264D-04	-0.530233D-04
39	-0.297348D-05	-0.465135D-05	0.907066D-05	-0.265953D-06	0.983253D-05
40	0.223322D-04	0.146492D-04	-0.186015D-04	0.107454D-04	-0.145653D-03
41	-0.186863D-04	0.148997D-04	0.719264D-04	-0.100172D-05	-0.154186D-04
42	-0.199956D-05	-0.857111D-05	-0.248588D-04	0.206509D-04	0.176729D-04
43	0.104044D-03	0.192765D-04	-0.120180D-03	0.441755D-03	0.411125D-03



ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.135329D-02				
32	0.484458D-04	0.653931D-02			
33	0.884637D-04	0.229042D-03	0.236794D-01		
34	0.624442D-04	-0.188259D-03	-0.433970D-03	0.191707D-02	
35	-0.374543D-04	0.717788D-03	0.416260D-03	0.208521D-03	0.651213D-02
36	-0.281727D-04	0.151951D-03	0.764348D-04	-0.216146D-04	0.390616D-03
37	0.593730D-04	0.934304D-04	0.564940D-03	-0.142283D-03	-0.856317D-04
38	0.986463D-04	0.103325D-02	0.340855D-03	-0.977651D-04	-0.542085D-03
39	-0.868882D-05	0.279545D-04	0.103729D-03	-0.937648D-05	-0.391317D-04
40	0.257904D-03	0.400564D-03	0.673735D-03	-0.768421D-03	-0.506373D-03
41	-0.107400D-05	0.643463D-04	-0.310730D-03	0.202966D-03	-0.691375D-04
42	0.692587D-05	0.566660D-05	0.609202D-04	-0.160526D-04	0.188282D-04
43	0.999373D-04	0.316232D-04	0.440778D-03	-0.573867D-04	0.276770D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.172715D-02				
37	-0.109689D-02	0.845602D-01			
38	-0.818238D-04	0.142344D-02	0.525583D-02		
39	-0.165694D-04	-0.189101D-03	0.303048D-04	0.107342D-03	
40	0.247618D-03	0.261838D-02	0.258062D-03	0.273508D-04	0.690670D-01
41	-0.607874D-05	-0.794496D-03	0.602307D-04	0.132591D-04	-0.187694D-03
42	-0.671244D-06	-0.647816D-04	0.473195D-04	0.632303D-05	0.582101D-04
43	-0.153167D-02	0.110362D+00	0.149938D-02	-0.284431D-03	0.326365D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	0.293407D-02	
42	-0.473778D-04	0.345830D-03
43	-0.992657D-03	-0.652643D-04

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			

2	0.227	1.000			
3	-0.064	-0.139	1.000		
4	0.059	0.239	-0.178	1.000	
5	-0.054	-0.283	0.151	-0.203	1.000
6	-0.022	-0.028	-0.032	0.035	0.016
7	0.009	-0.036	0.004	-0.001	-0.008
8	-0.006	-0.044	-0.012	0.014	-0.003
9	0.008	-0.003	-0.030	-0.003	-0.023
10	0.045	0.003	0.022	-0.025	-0.009
11	0.009	0.090	0.022	0.029	-0.009
12	-0.008	0.038	0.047	-0.001	-0.010
13	0.007	-0.004	-0.037	-0.018	-0.036
14	0.007	-0.016	0.002	0.000	0.019
15	0.027	-0.009	-0.031	0.020	0.031
16	0.018	0.010	-0.011	0.007	-0.004
17	0.009	0.024	0.013	-0.037	0.026
18	-0.002	0.015	-0.021	0.056	-0.002
19	0.050	-0.005	-0.001	-0.016	-0.011
20	-0.039	0.024	0.004	0.020	-0.025
21	-0.036	-0.004	-0.002	-0.011	0.004
22	0.012	0.024	-0.030	-0.018	-0.005
23	0.016	0.005	-0.021	-0.005	-0.041
24	0.021	0.034	-0.013	0.009	-0.005
25	-0.012	0.024	-0.050	-0.009	0.020
26	0.061	-0.023	0.006	-0.004	0.030
27	0.022	0.005	0.044	0.014	0.041
28	-0.057	0.021	-0.017	0.016	-0.016
29	0.069	0.030	0.018	-0.002	-0.020
30	0.024	0.005	0.032	0.011	-0.034
31	-0.002	-0.018	-0.054	-0.013	-0.027
32	0.021	0.019	0.027	0.003	0.010
33	0.014	-0.009	-0.024	-0.004	0.012
34	0.043	0.102	-0.053	0.065	-0.129
35	0.004	-0.008	0.011	0.043	0.021
36	-0.019	0.001	0.060	-0.029	0.004
37	0.035	-0.001	-0.011	-0.003	-0.017
38	-0.022	0.032	-0.022	0.018	-0.023
39	-0.048	0.002	0.003	-0.063	0.021
40	0.006	-0.031	-0.010	0.001	0.027
41	0.040	0.072	0.021	0.020	-0.021
42	0.052	0.020	-0.032	-0.013	-0.001
43	0.038	0.004	-0.011	-0.003	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.116	1.000			
8	0.009	0.074	1.000		
9	0.007	-0.209	0.044	1.000	
10	0.015	0.171	-0.101	0.097	1.000
11	-0.034	-0.024	0.042	-0.006	-0.043
12	-0.052	-0.015	-0.019	-0.008	0.001
13	-0.026	0.015	0.070	-0.010	-0.027
14	-0.021	-0.040	-0.018	0.021	-0.038
15	0.034	0.018	-0.008	0.005	0.002
16	0.007	0.014	-0.033	-0.012	0.031
17	-0.056	0.007	-0.031	-0.014	0.040
18	-0.070	0.034	0.049	-0.022	0.004
19	0.020	-0.028	0.024	-0.022	-0.029
20	-0.051	0.073	0.023	0.024	0.078
21	-0.022	0.014	0.039	0.031	0.031
22	-0.013	0.029	0.077	-0.004	0.030
23	-0.005	-0.060	0.026	0.022	-0.068
24	-0.029	0.010	-0.009	0.043	0.039
25	-0.009	0.028	-0.010	0.001	0.041
26	0.020	-0.029	-0.045	0.011	0.020
27	0.049	0.006	-0.026	0.007	-0.004
28	0.006	-0.013	-0.027	0.007	-0.003
29	0.043	-0.072	-0.001	0.012	-0.048
30	-0.026	-0.034	0.021	-0.010	-0.053
31	0.005	0.021	0.015	-0.002	0.019
32	-0.012	-0.123	0.035	-0.103	0.055
33	0.027	-0.009	0.024	-0.038	0.017
34	-0.026	0.025	0.007	-0.008	0.026
35	-0.014	0.007	0.029	-0.023	0.060
36	-0.007	-0.004	-0.036	-0.043	0.002
37	-0.017	0.005	0.049	-0.027	0.022
38	0.062	-0.009	-0.014	-0.024	-0.070
39	-0.003	0.022	-0.014	-0.029	0.050
40	0.018	0.037	-0.018	-0.055	0.019
41	0.002	-0.045	-0.040	0.041	0.018
42	-0.020	-0.012	0.058	-0.027	-0.027
43	-0.033	-0.001	0.053	-0.031	0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.301	1.000			
13	0.047	0.303	1.000		
14	-0.102	-0.152	-0.029	1.000	
15	-0.004	-0.111	-0.223	0.243	1.000
16	0.018	-0.001	0.021	-0.140	-0.238
17	0.095	0.243	0.017	-0.129	-0.035
18	0.045	0.119	0.337	-0.018	-0.194
19	0.012	-0.026	-0.054	0.068	0.247
20	0.014	0.012	0.035	-0.001	-0.052
21	0.040	0.215	0.049	-0.144	0.017
22	0.012	0.077	0.343	-0.046	-0.182
23	-0.031	-0.013	-0.025	0.094	0.229
24	-0.018	0.047	0.110	-0.040	-0.075
25	-0.011	0.014	0.040	-0.038	-0.030
26	-0.023	-0.255	-0.052	0.135	0.077
27	-0.018	-0.070	-0.372	0.035	0.197
28	0.007	-0.017	0.077	0.002	-0.277
29	-0.029	-0.014	-0.133	0.020	0.074
30	0.013	0.036	-0.071	0.062	0.056
31	0.025	0.039	0.105	-0.053	-0.064
32	-0.007	-0.059	-0.005	0.010	-0.042
33	-0.027	-0.087	0.020	0.027	-0.033
34	0.011	0.009	0.034	-0.006	-0.036
35	-0.025	0.011	-0.002	-0.010	-0.042
36	-0.002	-0.052	-0.003	0.006	-0.002
37	0.037	0.001	0.021	0.019	0.003
38	-0.008	-0.029	0.015	-0.018	0.011
39	0.018	0.013	0.007	-0.037	-0.016
40	-0.023	-0.023	-0.012	0.015	0.006
41	0.021	0.042	0.055	-0.036	-0.058
42	-0.010	-0.026	-0.013	-0.008	0.027
43	0.035	0.001	0.026	0.021	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.036	1.000			
18	0.032	0.256	1.000		
19	-0.193	-0.084	-0.204	1.000	
20					1.000

20	0.069	0.080	0.322	-0.263	1.000
21	-0.017	0.214	0.053	0.030	0.016
22	0.037	0.059	0.274	-0.047	0.058
23	-0.258	-0.021	-0.104	0.214	-0.053
24	0.014	0.051	0.272	-0.202	0.338
25	0.008	-0.007	0.080	-0.018	0.035
26	-0.039	-0.207	-0.037	-0.002	-0.001
27	-0.054	-0.061	-0.255	0.035	-0.067
28	0.205	0.014	0.067	-0.219	0.038
29	-0.016	-0.030	-0.320	0.202	-0.307
30	-0.049	0.000	-0.109	0.009	-0.054
31	0.018	0.022	0.088	-0.048	0.062
32	0.029	-0.030	-0.016	0.032	-0.008
33	0.006	-0.043	0.009	0.015	0.015
34	-0.032	0.032	0.050	-0.044	0.053
35	0.055	-0.024	-0.002	-0.049	0.021
36	0.020	-0.019	-0.032	0.018	-0.055
37	0.025	0.013	0.022	-0.027	-0.008
38	-0.011	-0.015	0.007	0.046	-0.003
39	0.038	-0.005	-0.009	-0.026	0.017
40	0.011	0.022	-0.001	0.016	-0.011
41	0.034	0.040	-0.002	-0.034	0.045
42	-0.038	-0.006	0.008	0.070	-0.055
43	0.027	0.012	0.026	-0.024	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.210	1.000			
23	-0.031	-0.185	1.000		
24	0.068	0.290	-0.161	1.000	
25	0.023	0.332	-0.177	0.305	1.000
26	-0.202	-0.059	0.038	-0.035	0.004
27	-0.053	-0.280	0.041	-0.119	-0.070
28	0.001	0.076	-0.216	0.073	0.015
29	0.001	-0.115	0.054	-0.260	-0.073
30	-0.022	-0.320	0.145	-0.250	-0.330
31	0.021	0.087	-0.055	0.088	0.054
32	-0.052	-0.043	0.012	-0.044	-0.008
33	-0.012	0.033	0.000	0.004	0.023
34	-0.009	-0.013	0.030	0.075	-0.005
35	-0.049	-0.005	0.021	-0.005	0.012

36	-0.028	-0.017	-0.023	0.003	0.034
37	0.000	0.027	-0.052	0.006	0.028
38	-0.006	-0.009	-0.003	-0.011	0.017
39	0.027	-0.013	-0.031	-0.022	0.006
40	0.064	-0.015	-0.012	0.043	-0.027
41	-0.061	-0.010	-0.024	0.062	-0.011
42	0.061	0.029	0.006	0.020	0.019
43	0.003	0.030	-0.052	0.008	0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.221	1.000			
28	-0.028	-0.179	1.000		
29	0.019	0.264	-0.182	1.000	
30	-0.013	0.231	-0.179	0.237	1.000
31	-0.026	-0.351	0.183	-0.239	-0.273
32	0.063	0.005	-0.031	-0.031	0.015
33	0.052	0.001	0.019	0.026	0.020
34	-0.031	-0.021	0.032	-0.014	-0.007
35	0.038	0.035	0.005	0.014	0.017
36	0.055	0.061	-0.031	0.016	-0.023
37	0.029	0.010	-0.010	0.061	0.034
38	-0.002	0.014	0.026	-0.025	-0.024
39	-0.027	-0.021	0.029	-0.001	0.032
40	0.008	0.003	-0.002	0.002	-0.018
41	-0.033	0.013	0.044	-0.001	-0.009
42	-0.010	-0.022	-0.044	0.059	0.032
43	0.026	0.002	-0.010	0.062	0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.016	1.000			
33	0.016	0.018	1.000		
34	0.039	-0.053	-0.064	1.000	
35	-0.013	0.110	0.034	0.059	1.000
36	-0.018	0.045	0.012	-0.012	0.116
37	0.006	0.004	0.013	-0.011	-0.004
38	0.037	0.176	0.031	-0.031	-0.093

39	-0.023	0.033	0.065	-0.021	-0.047
40	0.027	0.019	0.017	-0.067	-0.024
41	-0.001	0.015	-0.037	0.086	-0.016
42	0.010	0.004	0.021	-0.020	0.013
43	0.007	0.001	0.007	-0.003	0.009

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.091	1.000			
38	-0.027	0.068	1.000		
39	-0.038	-0.063	0.040	1.000	
40	0.023	0.034	0.014	0.010	1.000
41	-0.003	-0.050	0.015	0.024	-0.013
42	-0.001	-0.012	0.035	0.033	0.012
43	-0.096	0.993	0.054	-0.072	0.033

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	-0.047	1.000	
43	-0.048	-0.009	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.021	43
200	1.014	38
300	1.019	43
400	1.010	43

500	1.005	43
600	1.007	43
700	1.007	37
800	1.007	43
900	1.006	43
1000	1.004	39



Improvement in physical health, time pressure interaction

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	0.971	0.971	0.971	0.971	
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.963
PRESS15	0.966	0.966	0.966	0.966	0.963
DUTIES15	0.966	0.966	0.966	0.966	0.963

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.966		
PRESS15	0.966	0.966	
DUTIES15	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.173	0.219	-2.338	1.75%	-1.489	-0.520	-0.258
57.000	1.361	-0.662	2.338	1.75%	0.080	0.848	

PHY15	0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15	0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15	0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15	0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15	2.756	0.183	1.000	14.06%	2.000	2.000	3.000
1373.000	1.207	-0.514	5.000	7.21%	3.000	4.000	
DUTIES15	0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.832	0.116	0.000	0.613	1.060	*
CHOICE15	-0.048	0.034	0.075	-0.117	0.018	
DUTIES15	0.037	0.039	0.168	-0.037	0.114	
BULLY15	0.050	0.058	0.191	-0.063	0.165	
KES15	0.167	0.052	0.000	0.066	0.264	*
KES15 WITH						
PHY15	0.070	0.009	0.000	0.054	0.089	*
CHOICE15	-0.135	0.024	0.000	-0.183	-0.090	*

BULLY15	0.127	0.015	0.000	0.098	0.158	*
PRESS15	0.209	0.024	0.000	0.164	0.257	*
DUTIES15	-0.207	0.021	0.000	-0.247	-0.164	*
PHY15 WITH						
CHOICE15	-0.032	0.012	0.001	-0.057	-0.010	*
BULLY15	0.013	0.007	0.039	-0.001	0.026	
PRESS15	0.016	0.012	0.100	-0.008	0.038	
DUTIES15	-0.009	0.011	0.198	-0.029	0.012	
CHOICE15 WITH						
BULLY15	-0.133	0.021	0.000	-0.173	-0.094	*
PRESS15	-0.174	0.032	0.000	-0.236	-0.111	*
DUTIES15	0.162	0.030	0.000	0.105	0.222	*
BULLY15 WITH						
PRESS15	0.176	0.020	0.000	0.135	0.216	*
DUTIES15	-0.141	0.019	0.000	-0.179	-0.105	*
PRESS15 WITH						
DUTIES15	-0.247	0.030	0.000	-0.309	-0.187	*
Means						
PHY15	0.000	0.010	0.497	-0.019	0.021	
KES15	0.000	0.021	0.498	-0.040	0.044	
CHOICE15	0.001	0.029	0.491	-0.056	0.056	
BULLY15	0.000	0.019	0.494	-0.039	0.036	
DUTIES15	0.001	0.028	0.491	-0.054	0.053	
Variances						
PHY15	0.154	0.006	0.000	0.144	0.166	*
KES15	0.615	0.024	0.000	0.569	0.661	*
CHOICE15	1.253	0.047	0.000	1.166	1.351	*
BULLY15	0.475	0.018	0.000	0.439	0.511	*
PRESS15	1.178	0.045	0.000	1.093	1.267	*
DUTIES15	0.977	0.037	0.000	0.908	1.052	*
Between Level						
S1 ON						
PRAFAC	0.001	0.038	0.490	-0.075	0.073	
PHYCAT16 ON						
PRAFAC	-0.051	0.042	0.117	-0.130	0.036	

PRESS15	0.027	0.220	0.449	-0.453	0.465	
PRAFAC WITH PRESS15	0.048	0.072	0.253	-0.084	0.197	
Means						
PRAFAC	-0.172	0.154	0.139	-0.470	0.139	
PRESS15	2.710	0.057	0.000	2.594	2.821	*
Intercepts						
S1	-0.013	0.043	0.379	-0.103	0.069	
Thresholds						
PHYCAT16\$1	-0.313	0.608	0.273	-1.655	0.874	
Variances						
PRAFAC	1.369	0.262	0.000	1.001	1.997	*
PRESS15	0.086	0.025	0.000	0.051	0.147	*
Residual Variances						
PHYCAT16	0.007	0.011	0.000	0.000	0.041	*
S1	0.008	0.011	0.000	0.001	0.043	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON PRESS15	-0.015	0.041	0.359	-0.097	0.065	
PHYCAT16 ON						
PHY15	0.301	0.039	0.000	0.223	0.377	*
CHOICE15	-0.049	0.034	0.067	-0.120	0.016	
DUTIES15	0.034	0.035	0.167	-0.034	0.104	
BULLY15	0.033	0.036	0.185	-0.039	0.104	
KES15	0.121	0.038	0.000	0.046	0.196	*

KES15	WITH					
PHY15		0.230	0.026	0.000	0.179	0.280 *
CHOICE15		-0.154	0.026	0.000	-0.204	-0.102 *
BULLY15		0.236	0.026	0.000	0.184	0.285 *
PRESS15		0.246	0.025	0.000	0.197	0.296 *
DUTIES15		-0.267	0.025	0.000	-0.313	-0.216 *
PHY15	WITH					
CHOICE15		-0.074	0.027	0.002	-0.128	-0.023 *
BULLY15		0.046	0.027	0.040	-0.005	0.097
PRESS15		0.037	0.028	0.095	-0.018	0.090
DUTIES15		-0.024	0.028	0.201	-0.077	0.031
CHOICE15	WITH					
BULLY15		-0.172	0.026	0.000	-0.222	-0.120 *
PRESS15		-0.143	0.027	0.000	-0.192	-0.088 *
DUTIES15		0.146	0.026	0.000	0.093	0.196 *
BULLY15	WITH					
PRESS15		0.235	0.026	0.000	0.183	0.283 *
DUTIES15		-0.206	0.026	0.000	-0.256	-0.154 *
PRESS15	WITH					
DUTIES15		-0.230	0.026	0.000	-0.280	-0.179 *
Means						
PHY15		0.000	0.027	0.498	-0.051	0.054
KES15		0.000	0.026	0.499	-0.051	0.051
CHOICE15		0.000	0.026	0.496	-0.051	0.051
BULLY15		0.000	0.028	0.492	-0.056	0.053
DUTIES15		0.000	0.028	0.498	-0.056	0.054
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
S1	ON					
PRAFAC		0.014	0.443	0.490	-0.788	0.831

PHYCAT16	ON					
PRAFAC		-0.490	0.349	0.117	-0.947	0.403
PRESS15		0.072	0.458	0.449	-0.867	0.818
PRAFAC	WITH					
PRESS15		0.142	0.192	0.253	-0.233	0.489
Means						
PRAFAC		-0.145	0.131	0.139	-0.407	0.114
PRESS15		9.205	1.304	0.000	7.007	12.022 *
Intercepts						
S1		-0.132	0.513	0.379	-1.163	0.864
Variances						
PRAFAC		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.489	0.278	0.000	0.023	0.961 *
S1		0.890	0.218	0.000	0.257	1.000 *

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.147	0.027	0.000	0.099	0.205

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.511	0.278	0.000	0.039	0.977
Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.110	0.218	0.000	0.000	0.743

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0



CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>0</u>	<u>0</u>
DUTIES15	0

ALPHA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>0</u>	<u>5</u>

BETA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0
KES15	0	0	0	0
CHOICE15	0	0	0	0

BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	0	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU

PHYCAT16
43

NU				
	PHYCAT16	PRAFAC	PRESS15	
	<hr/> 0	<hr/> 0	<hr/> 0	
LAMBDA				
	S1	PHYCAT16	PRAFAC	PRESS15
	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHYCAT16	0	0	0	0
PRAFAC	0	0	0	0
PRESS15	0	0	0	0
THETA				
	PHYCAT16	PRAFAC	PRESS15	
	<hr/> 0	<hr/>	<hr/>	
PHYCAT16	0			
PRAFAC	0	0		
PRESS15	0	0	0	
ALPHA				
	S1	PHYCAT16	PRAFAC	PRESS15
	<hr/> 32	<hr/> 0	<hr/> 33	<hr/> 34
BETA				
	S1	PHYCAT16	PRAFAC	PRESS15
	<hr/> 0	<hr/> 0	<hr/> 35	<hr/> 0
S1	0	0	36	37
PHYCAT16	0	0	0	0
PRAFAC	0	0	0	0
PRESS15	0	0	0	0
PSI				
	S1	PHYCAT16	PRAFAC	PRESS15
	<hr/> 38	<hr/>	<hr/>	<hr/>
S1	0	39		
PHYCAT16	0	0	40	
PRAFAC	0			

PRESS15	0	0	41	42
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STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000

PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA		
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000

DUTIES15	0.000	0.000	0.000	0.000	0.000
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BETA

	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	<u>0.604</u>	<u>          </u>
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU

PHYCAT16
<u>-0.311</u>

NU

	PHYCAT16	PRAFAC	PRESS15	
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	
	LAMBDA			
	S1	PHYCAT16	PRAFAC	PRESS15
PHYCAT16	<hr/> 0.000	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
	THETA			
	PHYCAT16	PRAFAC	PRESS15	
PHYCAT16	<hr/> 0.000	<hr/>	<hr/>	
PRAFAC	0.000	0.000		
PRESS15	0.000	0.000	0.000	
	ALPHA			
	S1	PHYCAT16	PRAFAC	PRESS15
	<hr/> 0.000	<hr/> 0.000	<hr/> -0.078	<hr/> 2.756
	BETA			
	S1	PHYCAT16	PRAFAC	PRESS15
S1	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
	PSI			
	S1	PHYCAT16	PRAFAC	PRESS15
S1	<hr/> 1.000	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.480	
PRESS15	0.000	0.000	0.000	0.604

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity



Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.107739D-03				
2	0.490195D-04	0.436316D-03			
3	-0.196822D-04	-0.838017D-04	0.854319D-03		
4	0.143563D-04	0.913174D-04	-0.111636D-03	0.373093D-03	
5	-0.153121D-04	-0.160076D-03	0.116052D-03	-0.976627D-04	0.757903D-03
6	-0.273219D-04	-0.816061D-04	-0.109219D-03	0.406770D-04	0.801508D-04
7	0.502284D-05	-0.369807D-04	-0.756879D-05	0.122842D-04	-0.255341D-04
8	-0.436610D-05	-0.275289D-04	-0.127656D-04	0.171561D-04	-0.696856D-05
9	-0.893157D-05	0.260370D-05	-0.296360D-04	0.880363D-06	-0.537609D-04
10	0.201053D-04	0.289633D-05	0.352124D-04	-0.126147D-04	-0.134350D-04
11	0.566735D-06	0.111774D-04	0.342798D-05	0.440125D-05	-0.178732D-05
12	-0.686264D-06	0.718792D-05	0.122290D-04	-0.529836D-06	-0.285816D-05
13	0.206023D-05	-0.514013D-06	-0.253448D-04	-0.540856D-05	-0.258730D-04
14	0.701714D-06	-0.478671D-05	0.144676D-05	0.157049D-05	0.673205D-05
15	0.663414D-05	-0.533631D-05	-0.216548D-04	0.800569D-05	0.218093D-04
16	0.872294D-05	0.153552D-04	-0.196667D-04	0.134401D-04	-0.849548D-05
17	0.111477D-05	0.454870D-05	0.289231D-05	-0.271711D-05	0.353495D-05
18	0.689309D-06	0.677532D-05	-0.846661D-05	0.185087D-04	-0.181918D-05
19	0.113449D-04	-0.452980D-05	-0.192072D-05	-0.162711D-04	-0.674186D-05
20	-0.641482D-05	0.103956D-04	0.133680D-05	0.532421D-05	-0.100846D-04
21	-0.451072D-05	0.654977D-06	-0.166370D-05	-0.197881D-05	0.831745D-06
22	0.263539D-05	0.899361D-05	-0.237355D-04	-0.897281D-05	0.678580D-06
23	0.425998D-05	0.175383D-05	-0.124782D-04	0.286182D-06	-0.323647D-04
24	0.289227D-05	0.135660D-04	-0.525446D-05	0.185690D-05	-0.262568D-05
25	-0.504205D-05	0.203165D-04	-0.634540D-04	-0.130298D-04	0.265886D-04
26	0.667578D-05	-0.519217D-05	0.165101D-05	0.753293D-06	0.872680D-05
27	0.464497D-05	0.167656D-05	0.267442D-04	0.403463D-05	0.245771D-04
28	-0.184982D-04	0.131365D-04	-0.126491D-04	0.109929D-04	-0.140910D-04
29	0.133678D-04	0.718657D-05	0.153603D-04	-0.263670D-05	-0.803712D-05
30	0.602166D-05	0.225926D-05	0.285648D-04	0.326811D-05	-0.270295D-04
31	-0.133623D-05	-0.139439D-04	-0.577339D-04	-0.357321D-05	-0.265403D-04
32	0.211442D-04	0.352900D-04	0.114764D-04	0.106238D-05	0.531809D-05
33	0.217981D-04	-0.357979D-04	-0.944912D-04	-0.157279D-04	0.509849D-04

34	0.250173D-04	0.155382D-03	-0.107016D-03	0.901152D-04	-0.231635D-03
35	0.255683D-05	-0.443120D-05	0.175740D-05	0.356974D-04	0.126166D-04
36	-0.386811D-05	0.714231D-05	0.601016D-04	-0.274621D-05	-0.139713D-04
37	-0.257625D-04	-0.946564D-04	0.125452D-03	0.468289D-04	-0.225190D-03
38	-0.415996D-05	0.836272D-05	-0.704814D-05	0.669725D-05	-0.180085D-04
39	-0.410994D-05	0.268205D-05	0.346552D-05	-0.142170D-04	0.847411D-05
40	0.403594D-04	-0.774576D-04	-0.117329D-03	0.728867D-05	0.260597D-03
41	0.414288D-04	0.124167D-03	0.332678D-04	0.394318D-04	-0.263896D-04
42	0.106177D-04	0.786777D-05	-0.743312D-05	0.266237D-05	-0.139871D-04
43	-0.619711D-04	-0.229538D-03	0.364494D-03	0.109801D-03	-0.626708D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.135382D-01				
7	-0.739207D-03	0.270083D-02			
8	0.616001D-04	0.127138D-03	0.113023D-02		
9	-0.106438D-03	-0.534321D-03	0.131675D-03	0.335004D-02	
10	0.735544D-04	0.335838D-03	-0.144867D-03	0.158264D-03	0.149803D-02
11	-0.213743D-04	-0.713191D-05	0.740664D-05	-0.936949D-05	-0.913489D-05
12	-0.503269D-04	-0.697058D-05	-0.683139D-05	-0.869914D-05	0.283889D-06
13	-0.575465D-04	0.198379D-04	0.539777D-04	-0.920100D-05	-0.239433D-04
14	-0.317493D-04	-0.288501D-04	-0.505463D-05	0.341651D-04	-0.163835D-04
15	0.872727D-04	0.175174D-04	-0.194131D-05	0.349944D-04	0.557401D-05
16	0.624641D-04	0.327703D-04	-0.622283D-04	-0.571520D-04	0.522995D-04
17	-0.450812D-04	0.447316D-05	-0.676921D-05	-0.696913D-05	0.133120D-04
18	-0.123277D-03	0.297360D-04	0.228281D-04	-0.467519D-04	0.437210D-05
19	0.218056D-04	-0.319216D-04	0.151109D-04	0.102440D-05	-0.224636D-04
20	-0.987907D-04	0.682343D-04	0.109039D-04	-0.678866D-05	0.568270D-04
21	-0.281658D-04	0.561731D-05	0.192887D-04	0.179231D-04	0.157376D-04
22	-0.417643D-04	0.443719D-04	0.653243D-04	0.272650D-04	0.256688D-04
23	0.670687D-05	-0.108450D-03	0.380583D-04	0.861744D-04	-0.658291D-04
24	-0.518114D-04	0.143075D-04	-0.789937D-05	-0.105823D-06	0.296885D-04
25	-0.785133D-04	0.838892D-04	-0.139415D-04	-0.625561D-04	0.647555D-04
26	0.194963D-04	-0.212050D-04	-0.156459D-04	0.153465D-04	0.520336D-05
27	0.106821D-03	0.517024D-05	-0.161506D-04	0.114429D-06	-0.107517D-04
28	0.163963D-04	-0.141963D-04	-0.314257D-04	-0.589159D-04	-0.725158D-05
29	0.827731D-04	-0.633703D-04	-0.917664D-06	0.440089D-04	-0.313212D-04
30	-0.740992D-04	-0.642590D-04	0.258702D-04	-0.249081D-04	-0.666601D-04
31	0.501840D-04	0.390969D-04	0.187968D-04	-0.461882D-04	0.341312D-04
32	-0.366700D-04	-0.372886D-03	0.411808D-04	-0.288842D-03	0.161884D-03
33	0.373183D-03	-0.776835D-04	0.115946D-03	-0.121426D-03	0.927009D-04
34	-0.177055D-03	0.853575D-04	0.131491D-04	-0.131251D-03	-0.959143D-07

35	-0.512002D-04	-0.151517D-04	0.249100D-04	-0.950680D-04	0.218252D-05
36	-0.347971D-04	-0.396175D-05	-0.368650D-04	-0.731954D-04	0.400810D-05
37	-0.329497D-03	-0.500357D-05	0.437260D-03	-0.116606D-03	-0.107548D-03
38	0.375037D-04	0.585283D-05	0.485950D-05	0.234867D-04	-0.978127D-05
39	-0.281902D-04	0.228526D-04	0.201938D-05	-0.424825D-04	0.240487D-04
40	0.318159D-03	0.353754D-03	-0.177182D-03	-0.783275D-03	0.276333D-03
41	-0.534799D-04	-0.129816D-03	-0.684290D-04	0.572517D-04	0.795834D-04
42	0.186126D-04	0.132077D-04	0.369791D-04	-0.389562D-04	0.203601D-04
43	-0.161771D-02	-0.122521D-03	0.124388D-02	-0.399114D-03	-0.332061D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.329673D-04				
12	0.152671D-04	0.780710D-04			
13	0.636321D-05	0.636640D-04	0.568260D-03		
14	-0.710189D-05	-0.162781D-04	-0.801375D-05	0.146581D-03	
15	-0.520597D-06	-0.233494D-04	-0.126289D-03	0.702533D-04	0.568659D-03
16	0.458485D-05	-0.466950D-06	0.234246D-04	-0.801564D-04	-0.269105D-03
17	0.403045D-05	0.151987D-04	0.271945D-05	-0.125177D-04	-0.626977D-05
18	0.337527D-05	0.161585D-04	0.120679D-03	-0.373442D-05	-0.738960D-04
19	0.304519D-05	-0.265605D-05	-0.262581D-04	0.156048D-04	0.124140D-03
20	0.547102D-06	0.154923D-05	0.121567D-04	-0.172650D-05	-0.227195D-04
21	0.292736D-05	0.228638D-04	0.137566D-04	-0.190149D-04	0.510179D-05
22	0.225145D-05	0.159816D-04	0.200092D-03	-0.128218D-04	-0.101503D-03
23	-0.701580D-05	-0.645685D-05	-0.248476D-04	0.381531D-04	0.177621D-03
24	-0.214587D-05	0.907780D-05	0.556321D-04	-0.109298D-04	-0.352167D-04
25	-0.235051D-05	0.507847D-05	0.477990D-04	-0.171678D-04	-0.356652D-04
26	-0.142232D-05	-0.239037D-04	-0.132191D-04	0.172750D-04	0.196136D-04
27	-0.208846D-05	-0.130020D-04	-0.188599D-03	0.918320D-05	0.998730D-04
28	0.123588D-05	-0.469800D-05	0.555175D-04	0.103589D-05	-0.201593D-03
29	-0.297679D-05	-0.266220D-05	-0.585031D-04	0.522040D-05	0.353537D-04
30	0.196033D-05	0.107460D-04	-0.529890D-04	0.216868D-04	0.397504D-04
31	0.508218D-05	0.125801D-04	0.920611D-04	-0.236292D-04	-0.567699D-04
32	-0.788469D-07	-0.209136D-04	-0.196935D-04	0.195249D-05	-0.447768D-04
33	-0.241245D-04	-0.118212D-03	0.720765D-04	0.506352D-04	-0.124052D-03
34	0.644928D-05	-0.262989D-05	0.584844D-04	-0.580819D-05	-0.748549D-04
35	-0.569220D-05	0.168647D-06	-0.683287D-05	-0.519510D-05	-0.297673D-04
36	-0.310106D-06	-0.180616D-04	0.519846D-05	-0.150419D-05	-0.130412D-04
37	0.873836D-05	0.535717D-05	0.186380D-03	0.106279D-03	0.206434D-04
38	0.507727D-06	-0.246770D-05	0.794944D-05	-0.165494D-05	-0.204123D-05
39	0.209514D-05	0.197629D-05	0.258253D-05	-0.195540D-05	-0.411777D-05
40	-0.230073D-04	-0.380768D-04	-0.357594D-04	0.960110D-05	-0.187585D-04

41	0.110185D-04	0.288891D-04	0.924945D-04	-0.343514D-04	-0.899972D-04
42	0.127433D-06	-0.448657D-05	-0.527705D-05	-0.591950D-05	0.805813D-05
43	0.210443D-04	0.146582D-04	0.552942D-03	0.306549D-03	0.218639D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.224752D-02				
17	0.132649D-04	0.512730D-04			
18	0.234533D-04	0.269097D-04	0.230175D-03		
19	-0.203944D-03	-0.105235D-04	-0.597497D-04	0.435245D-03	
20	0.626692D-04	0.995654D-05	0.867592D-04	-0.988878D-04	0.335409D-03
21	-0.115566D-04	0.192417D-04	0.111226D-04	0.543254D-05	0.526798D-05
22	0.382659D-04	0.111219D-04	0.103482D-03	-0.261618D-04	0.257847D-04
23	-0.388420D-03	-0.708572D-05	-0.567387D-04	0.154097D-03	-0.404137D-04
24	0.162099D-04	0.777026D-05	0.869308D-04	-0.771979D-04	0.125854D-03
25	0.178417D-04	-0.303921D-05	0.567562D-04	-0.234057D-04	0.307119D-04
26	-0.190904D-04	-0.162408D-04	-0.607381D-05	-0.151563D-05	-0.101492D-05
27	-0.539224D-04	-0.101304D-04	-0.839054D-04	0.174459D-04	-0.261697D-04
28	0.296333D-03	0.209012D-05	0.310142D-04	-0.136929D-03	0.198565D-04
29	-0.175667D-04	-0.393212D-05	-0.894257D-04	0.752624D-04	-0.104104D-03
30	-0.659212D-04	-0.208609D-05	-0.532235D-04	0.567356D-05	-0.326581D-04
31	0.316467D-04	0.551827D-05	0.513475D-04	-0.379312D-04	0.431266D-04
32	0.791537D-04	-0.728222D-06	-0.598443D-05	0.110640D-04	-0.896877D-05
33	0.487849D-04	-0.440539D-04	0.348887D-04	0.219194D-04	0.495900D-04
34	-0.510375D-04	0.628897D-05	0.261531D-04	-0.781706D-05	0.230800D-04
35	0.113652D-03	-0.113860D-04	-0.401341D-05	-0.323561D-04	0.154010D-04
36	0.322180D-04	-0.905950D-05	-0.103312D-04	-0.298097D-05	-0.206759D-04
37	-0.852974D-04	-0.198193D-05	0.619707D-05	-0.232069D-04	-0.239161D-03
38	-0.158932D-05	0.163635D-05	0.597704D-05	0.786852D-07	0.679238D-05
39	0.175532D-04	0.138556D-06	-0.320694D-05	-0.317140D-05	0.193955D-05
40	0.152447D-03	0.586441D-04	0.649504D-05	0.926909D-04	-0.322157D-04
41	0.824581D-04	0.126573D-04	0.101812D-04	-0.416191D-04	0.453542D-04
42	-0.457206D-04	-0.930670D-06	0.503262D-05	0.106621D-04	0.114074D-04
43	-0.263040D-03	-0.872272D-05	0.532619D-04	-0.321690D-04	-0.645000D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.138557D-03				
22	0.598051D-04	0.573718D-03			
23	-0.153872D-04	-0.143685D-03	0.102634D-02		

24	0.192608D-04	0.137959D-03	-0.133795D-03	0.415639D-03	
25	0.138091D-04	0.364897D-03	-0.232802D-03	0.285274D-03	0.200731D-02
26	-0.259356D-04	-0.155062D-04	0.143456D-04	-0.758231D-05	0.432511D-06
27	-0.131846D-04	-0.145608D-03	0.284689D-04	-0.478828D-04	-0.737895D-04
28	0.171594D-05	0.555429D-04	-0.220963D-03	0.469403D-04	0.250531D-04
29	-0.108088D-05	-0.554543D-04	0.395815D-04	-0.103886D-03	-0.581636D-04
30	-0.194818D-05	-0.227076D-03	0.142855D-03	-0.155684D-03	-0.453535D-03
31	0.775743D-05	0.763818D-04	-0.620491D-04	0.666935D-04	0.921156D-04
32	-0.231608D-04	-0.546846D-04	0.107200D-04	-0.258386D-04	0.700147D-05
33	-0.292432D-04	0.112525D-03	0.327310D-04	0.223860D-04	0.158779D-03
34	0.146540D-05	0.153891D-04	-0.735940D-04	0.835905D-04	0.531303D-04
35	-0.252991D-04	-0.226089D-04	0.161208D-04	-0.710217D-05	0.208559D-04
36	-0.180046D-04	-0.171040D-04	-0.374850D-04	0.100088D-04	0.839072D-04
37	0.630275D-04	0.176646D-03	0.837105D-05	-0.413544D-05	-0.222611D-03
38	-0.155662D-05	-0.278846D-05	-0.599688D-05	0.303966D-06	-0.678793D-05
39	0.198909D-05	-0.433855D-05	-0.561170D-05	-0.410973D-05	-0.711114D-08
40	0.184724D-03	-0.104598D-03	-0.143693D-03	0.331211D-03	-0.298716D-03
41	-0.374854D-04	-0.163928D-04	-0.898902D-04	0.713706D-04	0.222868D-04
42	0.171579D-04	0.137088D-04	0.204798D-04	0.918317D-05	0.360779D-04
43	0.196898D-03	0.500046D-03	0.253179D-04	0.137569D-04	-0.696134D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.112237D-03				
27	0.498261D-04	0.453202D-03			
28	-0.922931D-05	-0.116175D-03	0.927983D-03		
29	0.525345D-05	0.109225D-03	-0.110505D-03	0.356613D-03	
30	-0.484956D-05	0.146758D-03	-0.158201D-03	0.135648D-03	0.907359D-03
31	-0.101827D-04	-0.275065D-03	0.204655D-03	-0.174773D-03	-0.304803D-03
32	0.208732D-04	-0.729044D-05	-0.374445D-04	-0.174922D-04	0.245793D-04
33	0.847533D-04	0.173469D-05	0.861191D-04	0.872367D-04	0.721189D-04
34	-0.122581D-04	-0.190823D-04	0.426862D-04	0.990330D-05	-0.706591D-04
35	0.189676D-04	0.325565D-04	-0.782467D-05	0.118502D-04	0.673864D-05
36	0.211460D-04	0.396044D-04	-0.296735D-04	0.204926D-05	-0.303074D-04
37	0.851460D-04	0.108870D-03	-0.169930D-03	0.153008D-03	0.398787D-03
38	-0.214002D-05	-0.251105D-05	0.108564D-04	0.101072D-05	-0.749893D-06
39	-0.178004D-05	-0.818314D-06	0.770067D-05	0.290280D-05	0.891892D-05
40	-0.393277D-05	0.366147D-04	-0.496412D-04	-0.277648D-04	-0.112588D-03
41	-0.323845D-04	0.171032D-04	0.833420D-04	0.168323D-04	-0.558750D-04
42	0.288140D-05	0.771688D-05	-0.248370D-04	0.904603D-05	0.570877D-05
43	0.225285D-03	0.251618D-03	-0.482474D-03	0.417942D-03	0.112227D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.135244D-02				
32	0.692962D-04	0.189080D-02			
33	0.860388D-04	0.841360D-04	0.236711D-01		
34	0.398431D-04	-0.413385D-04	0.343137D-03	0.323103D-02	
35	0.145093D-05	0.267243D-03	0.141195D-03	0.114292D-03	0.147985D-02
36	-0.172891D-04	0.128948D-03	0.122749D-03	0.895402D-04	0.114334D-03
37	0.887383D-04	-0.639556D-03	0.330981D-03	-0.349064D-03	-0.666265D-05
38	0.702612D-05	-0.483947D-04	0.298716D-04	0.126692D-04	-0.208557D-04
39	-0.910834D-05	0.937075D-05	0.123150D-03	-0.179317D-05	-0.938310D-05
40	0.275531D-03	0.314353D-03	0.658902D-03	-0.888768D-03	-0.441238D-03
41	0.166312D-04	0.434199D-04	-0.291561D-03	0.380820D-03	0.229640D-04
42	0.162513D-04	0.288269D-04	0.117644D-03	-0.995922D-04	0.202814D-04
43	0.241414D-03	-0.175389D-02	0.544998D-03	-0.865619D-03	0.607337D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.173780D-02				
37	-0.205994D-02	0.482206D-01			
38	-0.134272D-04	0.368179D-06	0.130109D-03		
39	-0.135994D-04	0.545428D-04	0.218853D-05	0.116940D-03	
40	0.207785D-03	-0.489076D-03	-0.296994D-05	0.494244D-04	0.686166D-01
41	0.882577D-04	-0.145096D-02	0.186172D-04	0.589773D-05	0.219876D-02
42	0.854038D-05	-0.371362D-04	0.264623D-05	0.102153D-04	0.289438D-03
43	-0.581069D-02	0.133092D+00	-0.189668D-04	0.121907D-03	-0.139144D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	0.515744D-02	
42	0.376378D-03	0.621260D-03
43	-0.396716D-02	-0.808906D-04

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			

2	0.226	1.000			
3	-0.065	-0.137	1.000		
4	0.072	0.226	-0.198	1.000	
5	-0.054	-0.278	0.144	-0.184	1.000
6	-0.023	-0.034	-0.032	0.018	0.025
7	0.009	-0.034	-0.005	0.012	-0.018
8	-0.013	-0.039	-0.013	0.026	-0.008
9	-0.015	0.002	-0.018	0.001	-0.034
10	0.050	0.004	0.031	-0.017	-0.013
11	0.010	0.093	0.020	0.040	-0.011
12	-0.007	0.039	0.047	-0.003	-0.012
13	0.008	-0.001	-0.036	-0.012	-0.039
14	0.006	-0.019	0.004	0.007	0.020
15	0.027	-0.011	-0.031	0.017	0.033
16	0.018	0.016	-0.014	0.015	-0.007
17	0.015	0.030	0.014	-0.020	0.018
18	0.004	0.021	-0.019	0.063	-0.004
19	0.052	-0.010	-0.003	-0.040	-0.012
20	-0.034	0.027	0.002	0.015	-0.020
21	-0.037	0.003	-0.005	-0.009	0.003
22	0.011	0.018	-0.034	-0.019	0.001
23	0.013	0.003	-0.013	0.000	-0.037
24	0.014	0.032	-0.009	0.005	-0.005
25	-0.011	0.022	-0.048	-0.015	0.022
26	0.061	-0.023	0.005	0.004	0.030
27	0.021	0.004	0.043	0.010	0.042
28	-0.059	0.021	-0.014	0.019	-0.017
29	0.068	0.018	0.028	-0.007	-0.015
30	0.019	0.004	0.032	0.006	-0.033
31	-0.004	-0.018	-0.054	-0.005	-0.026
32	0.047	0.039	0.009	0.001	0.004
33	0.014	-0.011	-0.021	-0.005	0.012
34	0.042	0.131	-0.064	0.082	-0.148
35	0.006	-0.006	0.002	0.048	0.012
36	-0.009	0.008	0.049	-0.003	-0.012
37	-0.011	-0.021	0.020	0.011	-0.037
38	-0.035	0.035	-0.021	0.030	-0.057
39	-0.037	0.012	0.011	-0.068	0.028
40	0.015	-0.014	-0.015	0.001	0.036
41	0.056	0.083	0.016	0.028	-0.013
42	0.041	0.015	-0.010	0.006	-0.020
43	-0.010	-0.018	0.021	0.009	-0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.122	1.000			
8	0.016	0.073	1.000		
9	-0.016	-0.178	0.068	1.000	
10	0.016	0.167	-0.111	0.071	1.000
11	-0.032	-0.024	0.038	-0.028	-0.041
12	-0.049	-0.015	-0.023	-0.017	0.001
13	-0.021	0.016	0.067	-0.007	-0.026
14	-0.023	-0.046	-0.012	0.049	-0.035
15	0.031	0.014	-0.002	0.025	0.006
16	0.011	0.013	-0.039	-0.021	0.029
17	-0.054	0.012	-0.028	-0.017	0.048
18	-0.070	0.038	0.045	-0.053	0.007
19	0.009	-0.029	0.022	0.001	-0.028
20	-0.046	0.072	0.018	-0.006	0.080
21	-0.021	0.009	0.049	0.026	0.035
22	-0.015	0.036	0.081	0.020	0.028
23	0.002	-0.065	0.035	0.046	-0.053
24	-0.022	0.014	-0.012	0.000	0.038
25	-0.015	0.036	-0.009	-0.024	0.037
26	0.016	-0.039	-0.044	0.025	0.013
27	0.043	0.005	-0.023	0.000	-0.013
28	0.005	-0.009	-0.031	-0.033	-0.006
29	0.038	-0.065	-0.001	0.040	-0.043
30	-0.021	-0.041	0.026	-0.014	-0.057
31	0.012	0.020	0.015	-0.022	0.024
32	-0.007	-0.165	0.028	-0.115	0.096
33	0.021	-0.010	0.022	-0.014	0.016
34	-0.027	0.029	0.007	-0.040	0.000
35	-0.011	-0.008	0.019	-0.043	0.001
36	-0.007	-0.002	-0.026	-0.030	0.002
37	-0.013	0.000	0.059	-0.009	-0.013
38	0.028	0.010	0.013	0.036	-0.022
39	-0.022	0.041	0.006	-0.068	0.057
40	0.010	0.026	-0.020	-0.052	0.027
41	-0.006	-0.035	-0.028	0.014	0.029
42	0.006	0.010	0.044	-0.027	0.021
43	-0.023	-0.004	0.061	-0.011	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES



	11	12	13	14	15
11	1.000				
12	0.301	1.000			
13	0.046	0.302	1.000		
14	-0.102	-0.152	-0.028	1.000	
15	-0.004	-0.111	-0.222	0.243	1.000
16	0.017	-0.001	0.021	-0.140	-0.238
17	0.098	0.240	0.016	-0.144	-0.037
18	0.039	0.121	0.334	-0.020	-0.204
19	0.025	-0.014	-0.053	0.062	0.250
20	0.005	0.010	0.028	-0.008	-0.052
21	0.043	0.220	0.049	-0.133	0.018
22	0.016	0.076	0.350	-0.044	-0.178
23	-0.038	-0.023	-0.033	0.098	0.233
24	-0.018	0.050	0.114	-0.044	-0.072
25	-0.009	0.013	0.045	-0.032	-0.033
26	-0.023	-0.255	-0.052	0.135	0.078
27	-0.017	-0.069	-0.372	0.036	0.197
28	0.007	-0.017	0.076	0.003	-0.278
29	-0.027	-0.016	-0.130	0.023	0.079
30	0.011	0.040	-0.074	0.059	0.055
31	0.024	0.039	0.105	-0.053	-0.065
32	0.000	-0.054	-0.019	0.004	-0.043
33	-0.027	-0.087	0.020	0.027	-0.034
34	0.020	-0.005	0.043	-0.008	-0.055
35	-0.026	0.000	-0.007	-0.011	-0.032
36	-0.001	-0.049	0.005	-0.003	-0.013
37	0.007	0.003	0.036	0.040	0.004
38	0.008	-0.024	0.029	-0.012	-0.008
39	0.034	0.021	0.010	-0.015	-0.016
40	-0.015	-0.016	-0.006	0.003	-0.003
41	0.027	0.046	0.054	-0.040	-0.053
42	0.001	-0.020	-0.009	-0.020	0.014
43	0.006	0.003	0.038	0.042	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.039	1.000			
18	0.033	0.248	1.000		
19	-0.206	-0.070	-0.189	1.000	

20	0.072	0.076	0.312	-0.259	1.000
21	-0.021	0.228	0.062	0.022	0.024
22	0.034	0.065	0.285	-0.052	0.059
23	-0.256	-0.031	-0.117	0.231	-0.069
24	0.017	0.053	0.281	-0.182	0.337
25	0.008	-0.009	0.083	-0.025	0.037
26	-0.038	-0.214	-0.038	-0.007	-0.005
27	-0.053	-0.066	-0.260	0.039	-0.067
28	0.205	0.010	0.067	-0.215	0.036
29	-0.020	-0.029	-0.312	0.191	-0.301
30	-0.046	-0.010	-0.116	0.009	-0.059
31	0.018	0.021	0.092	-0.049	0.064
32	0.038	-0.002	-0.009	0.012	-0.011
33	0.007	-0.040	0.015	0.007	0.018
34	-0.019	0.015	0.030	-0.007	0.022
35	0.062	-0.041	-0.007	-0.040	0.022
36	0.016	-0.030	-0.016	-0.003	-0.027
37	-0.008	-0.001	0.002	-0.005	-0.059
38	-0.003	0.020	0.035	0.000	0.033
39	0.034	0.002	-0.020	-0.014	0.010
40	0.012	0.031	0.002	0.017	-0.007
41	0.024	0.025	0.009	-0.028	0.034
42	-0.039	-0.005	0.013	0.021	0.025
43	-0.009	-0.002	0.006	-0.003	-0.058

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.212	1.000			
23	-0.041	-0.187	1.000		
24	0.080	0.283	-0.205	1.000	
25	0.026	0.340	-0.162	0.312	1.000
26	-0.208	-0.061	0.042	-0.035	0.001
27	-0.053	-0.286	0.042	-0.110	-0.077
28	0.005	0.076	-0.226	0.076	0.018
29	-0.005	-0.123	0.065	-0.270	-0.069
30	-0.005	-0.315	0.148	-0.254	-0.336
31	0.018	0.087	-0.053	0.089	0.056
32	-0.045	-0.053	0.008	-0.029	0.004
33	-0.016	0.031	0.007	0.007	0.023
34	0.002	0.011	-0.040	0.072	0.021
35	-0.056	-0.025	0.013	-0.009	0.012

36	-0.037	-0.017	-0.028	0.012	0.045
37	0.024	0.034	0.001	-0.001	-0.023
38	-0.012	-0.010	-0.016	0.001	-0.013
39	0.016	-0.017	-0.016	-0.019	0.000
40	0.060	-0.017	-0.017	0.062	-0.025
41	-0.044	-0.010	-0.039	0.049	0.007
42	0.058	0.023	0.026	0.018	0.032
43	0.028	0.034	0.001	0.001	-0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.221	1.000			
28	-0.029	-0.179	1.000		
29	0.026	0.272	-0.192	1.000	
30	-0.015	0.229	-0.172	0.238	1.000
31	-0.026	-0.351	0.183	-0.252	-0.275
32	0.045	-0.008	-0.028	-0.021	0.019
33	0.052	0.001	0.018	0.030	0.016
34	-0.020	-0.016	0.025	0.009	-0.041
35	0.047	0.040	-0.007	0.016	0.006
36	0.048	0.045	-0.023	0.003	-0.024
37	0.037	0.023	-0.025	0.037	0.060
38	-0.018	-0.010	0.031	0.005	-0.002
39	-0.016	-0.004	0.023	0.014	0.027
40	-0.001	0.007	-0.006	-0.006	-0.014
41	-0.043	0.011	0.038	0.012	-0.026
42	0.011	0.015	-0.033	0.019	0.008
43	0.035	0.019	-0.026	0.036	0.061

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.043	1.000			
33	0.015	0.013	1.000		
34	0.019	-0.017	0.039	1.000	
35	0.001	0.160	0.024	0.052	1.000
36	-0.011	0.071	0.019	0.038	0.071
37	0.011	-0.067	0.010	-0.028	-0.001
38	0.017	-0.098	0.017	0.020	-0.048

39	-0.023	0.020	0.074	-0.003	-0.023
40	0.029	0.028	0.016	-0.060	-0.044
41	0.006	0.014	-0.026	0.093	0.008
42	0.018	0.027	0.031	-0.070	0.021
43	0.011	-0.066	0.006	-0.025	0.003

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.225	1.000			
38	-0.028	0.000	1.000		
39	-0.030	0.023	0.018	1.000	
40	0.019	-0.009	-0.001	0.017	1.000
41	0.029	-0.092	0.023	0.008	0.117
42	0.008	-0.007	0.009	0.038	0.044
43	-0.229	0.998	-0.003	0.019	-0.009

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.210	1.000	
43	-0.091	-0.005	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.009	43
200	1.013	43
300	1.037	43
400	1.020	43

500	1.016	43
600	1.017	43
700	1.018	37
800	1.005	37
900	1.003	37
1000	1.003	39

Improvement in physical health, role clarity interaction

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	PHY15	KES15	CHOICE15
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	0.971	0.971	0.971	0.971	
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.963
PRESS15	0.966	0.966	0.966	0.966	0.963
DUTIES15	0.966	0.966	0.966	0.966	0.963

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.966		
PRESS15	0.966	0.966	
DUTIES15	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.173	0.219	-2.338	1.75%	-1.489	-0.520	-0.258
57.000	1.361	-0.662	2.338	1.75%	0.080	0.848	

PHY15	0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15	0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15	0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15	0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15	0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15	3.873	-0.896	1.000	3.06%	3.000	4.000	4.000
1373.000	0.975	0.587	5.000	27.75%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.831	0.116	0.000	0.615	1.062	*
CHOICE15	-0.050	0.033	0.067	-0.116	0.016	
PRESS15	0.001	0.036	0.490	-0.070	0.069	
BULLY15	0.048	0.059	0.205	-0.069	0.162	
KES15	0.166	0.052	0.001	0.059	0.264	*
KES15 WITH						
PHY15	0.071	0.009	0.000	0.054	0.089	*
CHOICE15	-0.135	0.024	0.000	-0.183	-0.089	*



BULLY15	0.127	0.015	0.000	0.098	0.158	*
PRESS15	0.206	0.024	0.000	0.160	0.254	*
DUTIES15	-0.203	0.021	0.000	-0.244	-0.160	*
PHY15 WITH						
CHOICE15	-0.032	0.012	0.001	-0.057	-0.010	*
BULLY15	0.013	0.007	0.037	-0.001	0.026	
PRESS15	0.015	0.012	0.108	-0.009	0.037	
DUTIES15	-0.010	0.011	0.171	-0.030	0.010	
CHOICE15 WITH						
BULLY15	-0.133	0.021	0.000	-0.173	-0.094	*
PRESS15	-0.183	0.032	0.000	-0.248	-0.122	*
DUTIES15	0.168	0.031	0.000	0.109	0.229	*
BULLY15 WITH						
PRESS15	0.178	0.020	0.000	0.136	0.217	*
DUTIES15	-0.139	0.019	0.000	-0.177	-0.103	*
PRESS15 WITH						
DUTIES15	-0.248	0.030	0.000	-0.308	-0.187	*
Means						
PHY15	0.000	0.010	0.500	-0.019	0.022	
KES15	0.000	0.021	0.498	-0.042	0.042	
CHOICE15	0.001	0.029	0.487	-0.055	0.056	
BULLY15	0.001	0.019	0.486	-0.038	0.036	
PRESS15	0.000	0.031	0.499	-0.059	0.060	
Variances						
PHY15	0.154	0.006	0.000	0.144	0.166	*
KES15	0.615	0.024	0.000	0.569	0.661	*
CHOICE15	1.252	0.047	0.000	1.166	1.351	*
BULLY15	0.475	0.018	0.000	0.439	0.511	*
PRESS15	1.208	0.046	0.000	1.120	1.302	*
DUTIES15	0.955	0.037	0.000	0.887	1.029	*
Between Level						
S1 ON						
PRAFAC	-0.018	0.044	0.336	-0.108	0.064	
PHYCAT16 ON						
PRAFAC	-0.047	0.043	0.129	-0.131	0.039	

DUTIES15	-0.225	0.227	0.153	-0.679	0.203	
PRAFAC WITH DUTIES15	0.054	0.064	0.190	-0.068	0.189	
Means						
PRAFAC	-0.172	0.154	0.137	-0.471	0.135	
DUTIES15	3.906	0.050	0.000	3.805	4.006	*
Intercepts						
S1	0.040	0.048	0.203	-0.062	0.128	
Thresholds						
PHYCAT16\$1	-1.264	0.885	0.067	-3.036	0.359	
Variances						
PRAFAC	1.376	0.263	0.000	1.001	2.001	*
DUTIES15	0.071	0.021	0.000	0.043	0.123	*
Residual Variances						
PHYCAT16	0.006	0.010	0.000	0.000	0.034	*
S1	0.008	0.015	0.000	0.001	0.055	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON DUTIES15	0.038	0.040	0.166	-0.042	0.114	
PHYCAT16 ON						
PHY15	0.301	0.039	0.000	0.224	0.377	*
CHOICE15	-0.051	0.034	0.060	-0.120	0.014	
PRESS15	0.001	0.036	0.487	-0.071	0.068	
BULLY15	0.031	0.036	0.200	-0.041	0.100	
KES15	0.120	0.038	0.000	0.044	0.193	*

KES15	WITH					
PHY15		0.230	0.026	0.000	0.178	0.280 *
CHOICE15		-0.154	0.026	0.000	-0.204	-0.102 *
BULLY15		0.236	0.026	0.000	0.185	0.285 *
PRESS15		0.239	0.025	0.000	0.191	0.291 *
DUTIES15		-0.265	0.025	0.000	-0.312	-0.212 *
PHY15	WITH					
CHOICE15		-0.074	0.027	0.002	-0.128	-0.023 *
BULLY15		0.046	0.027	0.039	-0.005	0.097
PRESS15		0.036	0.028	0.105	-0.019	0.087
DUTIES15		-0.027	0.028	0.174	-0.081	0.029
CHOICE15	WITH					
BULLY15		-0.172	0.026	0.000	-0.222	-0.120 *
PRESS15		-0.149	0.026	0.000	-0.197	-0.094 *
DUTIES15		0.153	0.027	0.000	0.099	0.204 *
BULLY15	WITH					
PRESS15		0.234	0.025	0.000	0.184	0.282 *
DUTIES15		-0.206	0.026	0.000	-0.257	-0.154 *
PRESS15	WITH					
DUTIES15		-0.230	0.026	0.000	-0.280	-0.178 *
Means						
PHY15		0.000	0.027	0.500	-0.051	0.055
KES15		0.000	0.026	0.493	-0.052	0.052
CHOICE15		0.000	0.026	0.497	-0.051	0.051
BULLY15		0.000	0.028	0.496	-0.053	0.055
PRESS15		0.000	0.028	0.496	-0.053	0.054
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
S1	ON					
PRAFAC		-0.211	0.462	0.336	-0.924	0.803

PHYCAT16	ON					
PRAFAC		-0.415	0.340	0.129	-0.929	0.402
DUTIES15		-0.471	0.375	0.153	-0.956	0.447
PRAFAC	WITH					
DUTIES15		0.177	0.185	0.190	-0.209	0.501
Means						
PRAFAC		-0.144	0.131	0.137	-0.407	0.114
DUTIES15		14.639	1.974	0.000	11.139	18.906 *
Intercepts						
S1		0.369	0.593	0.203	-0.550	1.828
Variances						
PRAFAC		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.363	0.272	0.000	0.015	0.937 *
S1		0.850	0.252	0.000	0.126	1.000 *

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.148	0.028	0.000	0.098	0.205

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.637	0.272	0.000	0.063	0.985

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.150	0.252	0.000	0.000	0.874

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>0</u>	<u>0</u>
PRESS15	
DUTIES15	0

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>0</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0

BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	10	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU

PHYCAT16
43

NU				
	PHYCAT16	PRAFAC	DUTIES15	
	<hr/>	<hr/>	<hr/>	
	0	0	0	
LAMBDA				
	S1	PHYCAT16	PRAFAC	DUTIES15
	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	0	0	0
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0
THETA				
	PHYCAT16	PRAFAC	DUTIES15	
	<hr/>	<hr/>	<hr/>	
PHYCAT16	0			
PRAFAC	0	0		
DUTIES15	0	0	0	
ALPHA				
	S1	PHYCAT16	PRAFAC	DUTIES15
	<hr/>	<hr/>	<hr/>	<hr/>
	32	0	33	34
BETA				
	S1	PHYCAT16	PRAFAC	DUTIES15
	<hr/>	<hr/>	<hr/>	<hr/>
S1	0	0	35	0
PHYCAT16	0	0	36	37
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0
PSI				
	S1	PHYCAT16	PRAFAC	DUTIES15
	<hr/>	<hr/>	<hr/>	<hr/>
S1	38			
PHYCAT16	0	39		
PRAFAC	0	0	40	



DUTIES15	0	0	41	42
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STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000

PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000

DUTIES15	0.000	0.000	0.000	0.000	0.000
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BETA

PRESS15	DUTIES15
---------	----------

PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
----------	-------	-------	----------	---------

PHYCAT16	1.000				
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
---------	----------

PRESS15	0.604	
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU

PHYCAT16

-0.311

NU

	PHYCAT16	PRAFAC	DUTIES15	
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	
	LAMBDA			
	S1	PHYCAT16	PRAFAC	DUTIES15
PHYCAT16	<hr/> 0.000	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	0.000	1.000	0.000
DUTIES15	0.000	0.000	0.000	1.000
	THETA			
	PHYCAT16	PRAFAC	DUTIES15	
PHYCAT16	<hr/> 0.000	<hr/>	<hr/>	
PRAFAC	0.000	0.000		
DUTIES15	0.000	0.000	0.000	
	ALPHA			
	S1	PHYCAT16	PRAFAC	DUTIES15
	<hr/> 0.000	<hr/> 0.000	<hr/> -0.078	<hr/> 3.873
	BETA			
	S1	PHYCAT16	PRAFAC	DUTIES15
S1	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHYCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000
	PSI			
	S1	PHYCAT16	PRAFAC	DUTIES15
S1	<hr/> 1.000	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.480	
DUTIES15	0.000	0.000	0.000	0.488

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity

Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.107548D-03				
2	0.472747D-04	0.448125D-03			
3	-0.169815D-04	-0.900467D-04	0.856125D-03		
4	0.124884D-04	0.884145D-04	-0.106037D-03	0.362782D-03	
5	-0.937611D-06	0.132001D-03	-0.122967D-03	0.134683D-03	0.933058D-03
6	-0.262954D-04	-0.659930D-04	-0.117331D-03	0.524247D-04	0.113546D-03
7	0.825416D-05	-0.181406D-04	-0.334072D-06	0.108455D-04	-0.376461D-04
8	-0.518415D-05	-0.301126D-04	-0.146723D-04	0.177988D-04	-0.166252D-04
9	-0.576583D-05	-0.144338D-06	-0.258992D-04	-0.215899D-05	-0.551500D-04
10	0.963618D-05	-0.167766D-04	0.169268D-04	-0.227236D-04	-0.128573D-04
11	0.378788D-06	0.874439D-05	0.528657D-05	0.261078D-05	0.333334D-05
12	-0.963848D-06	0.383610D-05	0.146058D-04	-0.257921D-05	-0.291415D-05
13	0.117587D-05	-0.932783D-05	-0.190016D-04	-0.120239D-04	-0.315741D-04
14	0.932993D-06	-0.639384D-05	0.335430D-05	0.190773D-06	0.420156D-05
15	0.673296D-05	-0.119148D-05	-0.227002D-04	0.109785D-04	0.271215D-04
16	0.845036D-05	0.106522D-04	-0.169544D-04	0.945354D-05	0.584194D-05
17	0.107969D-05	0.371078D-05	0.337462D-05	-0.340224D-05	0.164040D-05
18	0.663579D-06	0.455946D-05	-0.703066D-05	0.173843D-04	0.111503D-04
19	0.104564D-04	-0.843091D-05	0.253869D-05	-0.200146D-04	-0.207010D-04
20	-0.596477D-05	0.152721D-04	-0.263125D-05	0.923321D-05	-0.246124D-06
21	-0.454084D-05	-0.242698D-05	0.388865D-06	-0.339990D-05	-0.174099D-06
22	0.255069D-05	0.160242D-04	-0.247627D-04	-0.574570D-05	0.553567D-05
23	0.425975D-05	-0.312921D-05	-0.121768D-04	-0.873285D-05	-0.457401D-04
24	0.363238D-05	0.141132D-04	-0.104788D-04	0.340035D-05	0.129161D-04
25	-0.586041D-05	0.296008D-04	-0.745299D-04	-0.793801D-05	0.489831D-04
26	0.652261D-05	-0.437620D-05	0.215929D-05	0.211591D-06	0.477838D-05
27	0.331366D-05	-0.868027D-06	0.263276D-04	0.202429D-05	0.289332D-04
28	-0.189644D-04	0.653118D-05	-0.378693D-05	0.100137D-04	-0.295046D-05
29	0.129480D-04	0.582566D-05	0.185003D-04	-0.513757D-05	-0.344548D-05
30	0.747531D-05	0.135162D-05	0.275753D-04	0.443787D-05	-0.246392D-04
31	-0.176786D-05	-0.126942D-04	-0.563603D-04	-0.269030D-05	-0.374664D-04
32	0.262742D-04	0.338125D-04	0.197137D-04	-0.401251D-05	0.725344D-06
33	0.261041D-04	0.846891D-05	-0.139851D-03	0.215102D-04	0.992634D-05

34	0.105491D-04	-0.133955D-03	0.116215D-03	-0.122759D-03	-0.201548D-03
35	0.241992D-05	-0.452385D-05	0.194979D-04	0.408944D-04	0.529338D-04
36	-0.145768D-05	0.251244D-05	0.493576D-04	-0.570173D-05	-0.121241D-04
37	-0.197551D-05	-0.130959D-03	-0.368498D-04	0.163026D-03	-0.176608D-03
38	-0.743268D-05	0.194129D-05	-0.519535D-05	0.293862D-05	0.198931D-05
39	-0.115308D-05	0.544974D-05	-0.224579D-05	-0.763415D-05	0.191760D-05
40	0.464240D-04	-0.376817D-04	-0.178251D-03	0.126520D-04	0.201483D-03
41	0.443014D-04	0.110046D-03	0.271035D-05	0.170936D-04	0.599959D-04
42	0.640688D-05	0.690430D-05	-0.144733D-04	0.798112D-05	0.141451D-04
43	-0.448573D-05	-0.451448D-03	-0.158538D-03	0.646567D-03	-0.650337D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.135377D-01				
7	-0.726775D-03	0.268953D-02			
8	0.644418D-04	0.107944D-03	0.110968D-02		
9	-0.187756D-03	-0.466762D-03	0.123597D-03	0.342131D-02	
10	0.676401D-04	-0.376153D-03	0.570816D-04	-0.415761D-03	0.126503D-02
11	-0.223385D-04	-0.364947D-05	0.689159D-05	-0.702690D-05	0.606848D-05
12	-0.448875D-04	-0.118148D-04	-0.560266D-05	-0.128314D-04	0.872734D-05
13	-0.475102D-04	0.128714D-04	0.495344D-04	-0.109391D-04	-0.227090D-05
14	-0.271459D-04	-0.193675D-04	-0.661765D-05	0.387107D-04	-0.162252D-04
15	0.826005D-04	0.590350D-05	0.133066D-05	0.301664D-04	-0.179110D-04
16	0.478893D-04	0.603948D-04	-0.595131D-04	-0.508626D-04	0.323896D-04
17	-0.428756D-04	0.239346D-05	-0.667899D-05	-0.111283D-04	0.100026D-04
18	-0.114246D-03	0.271821D-04	0.230375D-04	-0.503109D-04	0.719927D-05
19	0.218212D-04	-0.281837D-04	0.967600D-05	0.303125D-05	-0.411550D-05
20	-0.866551D-04	0.679692D-04	0.157660D-04	-0.116824D-04	0.198846D-04
21	-0.263960D-04	0.310251D-05	0.187008D-04	0.110685D-04	0.758768D-05
22	-0.319878D-04	0.193939D-04	0.665174D-04	0.102490D-04	0.735772D-05
23	-0.268422D-04	-0.116597D-03	0.297299D-04	0.918727D-04	-0.334149D-04
24	-0.300296D-04	0.156817D-06	-0.249209D-05	-0.180482D-04	0.280701D-04
25	-0.185610D-04	0.809822D-04	-0.141131D-04	-0.565311D-04	0.876329D-04
26	0.193952D-04	-0.153575D-04	-0.173884D-04	0.181524D-04	-0.153672D-04
27	0.104970D-03	0.126219D-06	-0.117747D-04	-0.356016D-05	-0.186875D-04
28	0.499999D-04	-0.161189D-04	-0.299394D-04	-0.751440D-04	0.438358D-04
29	0.727157D-04	-0.730910D-04	0.118300D-05	0.379995D-04	-0.165049D-04
30	-0.136649D-03	-0.473598D-04	0.210761D-04	-0.487231D-05	-0.533474D-04
31	0.436704D-04	0.594530D-04	0.152392D-04	-0.345308D-04	0.318325D-04
32	-0.683916D-04	0.381035D-03	-0.156871D-03	0.332687D-03	0.218749D-03
33	0.381156D-03	-0.608374D-04	0.843932D-04	-0.505535D-04	0.690078D-04
34	-0.750627D-04	0.608652D-04	0.353777D-04	-0.113812D-03	0.420672D-04

35	-0.604535D-04	-0.246584D-04	0.379664D-04	0.708965D-04	-0.129982D-04
36	-0.678601D-04	0.667793D-04	-0.323647D-04	-0.666001D-04	0.144201D-05
37	-0.610993D-03	0.173558D-03	0.300217D-03	0.373833D-03	-0.243865D-04
38	0.526574D-04	-0.675397D-05	-0.146984D-05	0.130732D-04	0.243252D-05
39	-0.207398D-04	0.167047D-04	0.955383D-05	-0.424074D-04	0.217285D-04
40	0.371731D-03	0.497143D-03	-0.197341D-03	-0.762032D-03	0.332898D-03
41	-0.322710D-04	-0.847155D-04	-0.226829D-04	0.273009D-04	0.127896D-03
42	0.694007D-05	0.325311D-04	0.163477D-04	-0.151575D-04	0.213687D-04
43	-0.307318D-02	0.531290D-03	0.118102D-02	0.146241D-02	-0.917929D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.329447D-04				
12	0.152556D-04	0.780238D-04			
13	0.622066D-05	0.633401D-04	0.567444D-03		
14	-0.705567D-05	-0.161779D-04	-0.781118D-05	0.146597D-03	
15	-0.533409D-06	-0.232017D-04	-0.127151D-03	0.702367D-04	0.569307D-03
16	0.469170D-05	-0.784833D-06	0.251868D-04	-0.798225D-04	-0.269620D-03
17	0.402990D-05	0.151318D-04	0.262819D-05	-0.124767D-04	-0.623804D-05
18	0.333140D-05	0.160475D-04	0.120868D-03	-0.369157D-05	-0.746070D-04
19	0.300419D-05	-0.260005D-05	-0.267900D-04	0.156202D-04	0.124120D-03
20	0.531045D-06	0.138034D-05	0.124311D-04	-0.169649D-05	-0.233089D-04
21	0.271891D-05	0.224474D-04	0.130149D-04	-0.208303D-04	0.484339D-05
22	0.168135D-05	0.165039D-04	0.197766D-03	-0.139360D-04	-0.106536D-03
23	-0.545758D-05	-0.295976D-05	-0.197449D-04	0.361768D-04	0.173308D-03
24	-0.226861D-05	0.872867D-05	0.557055D-04	-0.105476D-04	-0.370080D-04
25	-0.280406D-05	0.506994D-05	0.434425D-04	-0.217336D-04	-0.341706D-04
26	-0.163655D-05	-0.233244D-04	-0.127947D-04	0.188264D-04	0.195698D-04
27	-0.181397D-05	-0.140614D-04	-0.183162D-03	0.100736D-04	0.103404D-03
28	0.986529D-06	-0.535929D-05	0.530210D-04	0.173243D-05	-0.199250D-03
29	-0.350005D-05	-0.204001D-05	-0.564758D-04	0.573866D-05	0.368248D-04
30	0.145817D-05	0.908537D-05	-0.506281D-04	0.227708D-04	0.379124D-04
31	0.492977D-05	0.143670D-04	0.892655D-04	-0.223995D-04	-0.581059D-04
32	0.166770D-06	-0.215780D-04	-0.181645D-04	0.707078D-05	-0.465998D-04
33	-0.239068D-04	-0.118232D-03	0.700252D-04	0.503302D-04	-0.125564D-03
34	0.585660D-05	-0.463153D-05	0.425392D-04	-0.163535D-06	-0.314081D-04
35	-0.200362D-05	0.688810D-05	0.507785D-05	0.221930D-05	-0.435872D-04
36	-0.346204D-05	-0.139411D-04	0.207975D-04	-0.395084D-05	-0.207002D-04
37	0.136020D-04	-0.274058D-04	0.165025D-03	0.154702D-03	-0.283281D-04
38	-0.563256D-06	-0.220823D-05	0.210143D-05	-0.443693D-06	0.145755D-05
39	0.204644D-05	0.159486D-05	0.696989D-05	0.638496D-06	-0.868096D-05
40	-0.253461D-04	-0.485908D-04	-0.615267D-04	0.563358D-05	-0.341251D-04



41	0.917467D-05	0.216093D-04	0.706365D-04	-0.459149D-04	-0.714242D-04
42	0.387367D-06	-0.513080D-05	-0.147250D-05	-0.568828D-05	0.260542D-06
43	0.476720D-04	-0.111615D-03	0.667966D-03	0.612039D-03	-0.126371D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.225196D-02				
17	0.130156D-04	0.511920D-04			
18	0.256221D-04	0.269067D-04	0.230557D-03		
19	-0.204289D-03	-0.104410D-04	-0.598517D-04	0.434898D-03	
20	0.634898D-04	0.987784D-05	0.870869D-04	-0.992995D-04	0.336500D-03
21	-0.989148D-05	0.190217D-04	0.103195D-04	0.714095D-05	0.489667D-05
22	0.421158D-04	0.103962D-04	0.102736D-03	-0.242933D-04	0.254201D-04
23	-0.386398D-03	-0.576206D-05	-0.530077D-04	0.153702D-03	-0.406678D-04
24	0.915114D-05	0.703555D-05	0.842596D-04	-0.787304D-04	0.124800D-03
25	0.174477D-04	-0.229463D-05	0.544475D-04	-0.221651D-04	0.268254D-04
26	-0.198995D-04	-0.157412D-04	-0.585601D-05	-0.376166D-05	-0.237109D-06
27	-0.559153D-04	-0.923089D-05	-0.817747D-04	0.166773D-04	-0.258108D-04
28	0.295558D-03	0.114125D-05	0.311650D-04	-0.134527D-03	0.214130D-04
29	-0.118679D-04	-0.401066D-05	-0.860423D-04	0.774474D-04	-0.101629D-03
30	-0.611275D-04	-0.288412D-05	-0.502268D-04	0.491746D-05	-0.300448D-04
31	0.260178D-04	0.434271D-05	0.471578D-04	-0.373505D-04	0.454995D-04
32	0.891067D-04	-0.624510D-05	-0.135404D-04	0.827544D-05	0.568424D-05
33	0.517762D-04	-0.444621D-04	0.346278D-04	0.214085D-04	0.487609D-04
34	-0.752280D-04	0.480500D-05	0.178608D-04	0.482590D-05	0.255378D-04
35	0.116447D-03	-0.666516D-05	0.484049D-05	-0.506063D-04	0.257348D-04
36	0.470120D-04	-0.110704D-04	-0.147331D-04	0.135642D-05	-0.296200D-04
37	0.204658D-03	-0.580663D-05	0.460273D-04	-0.310155D-03	0.309584D-04
38	0.317094D-05	0.198391D-05	0.583800D-05	0.587702D-05	0.442969D-05
39	0.155001D-04	-0.359583D-06	-0.325410D-05	-0.546976D-05	0.148525D-06
40	0.158214D-03	0.606730D-04	0.141297D-04	0.725293D-04	-0.260362D-04
41	0.469948D-04	0.204307D-04	0.150589D-04	-0.168181D-04	0.352564D-04
42	-0.348805D-04	-0.380724D-06	0.728874D-05	0.133583D-04	0.372219D-05
43	0.746214D-03	-0.262600D-04	0.209729D-03	-0.117503D-02	0.133014D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.140042D-03				
22	0.601498D-04	0.582103D-03			
23	-0.113308D-04	-0.142515D-03	0.100448D-02		

24	0.166821D-04	0.142174D-03	-0.123098D-03	0.416772D-03	
25	0.116210D-04	0.364165D-03	-0.256404D-03	0.289792D-03	0.207029D-02
26	-0.260138D-04	-0.156289D-04	0.119166D-04	-0.561712D-05	0.338991D-05
27	-0.145396D-04	-0.149524D-03	0.306349D-04	-0.525433D-04	-0.723448D-04
28	-0.613148D-06	0.561209D-04	-0.217628D-03	0.434316D-04	0.297263D-04
29	-0.276254D-06	-0.560284D-04	0.370131D-04	-0.100619D-03	-0.603677D-04
30	-0.924388D-05	-0.229822D-03	0.149225D-03	-0.159755D-03	-0.466145D-03
31	0.142983D-04	0.833516D-04	-0.674626D-04	0.744016D-04	0.104090D-03
32	-0.985713D-05	-0.527972D-04	0.879093D-05	-0.222815D-04	-0.647135D-05
33	-0.233991D-04	0.123295D-03	-0.771689D-06	0.122285D-04	0.152544D-03
34	-0.209043D-05	-0.170206D-04	0.244277D-04	0.398488D-04	-0.497747D-04
35	-0.172462D-04	-0.117946D-04	0.202636D-05	0.815063D-05	0.176402D-04
36	-0.308673D-05	0.458420D-05	-0.746191D-04	0.108369D-04	0.868879D-04
37	-0.501976D-04	0.217731D-03	-0.408880D-03	0.799351D-04	0.136314D-03
38	0.532233D-08	-0.949455D-05	-0.798270D-05	0.300762D-05	-0.717783D-05
39	0.258771D-05	-0.269131D-05	-0.244473D-05	-0.176938D-05	0.204129D-05
40	0.139936D-03	-0.143413D-03	-0.723116D-04	0.314518D-03	-0.392162D-03
41	-0.270653D-04	0.547122D-06	-0.509489D-04	0.647701D-04	-0.370836D-04
42	0.104482D-04	0.200096D-04	0.190089D-05	0.144680D-05	0.365364D-04
43	-0.176962D-03	0.853800D-03	-0.155552D-02	0.340850D-03	0.425924D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.111788D-03				
27	0.498567D-04	0.451505D-03			
28	-0.781580D-05	-0.120161D-03	0.940726D-03		
29	0.475333D-05	0.111023D-03	-0.118337D-03	0.356857D-03	
30	-0.384476D-05	0.149811D-03	-0.171581D-03	0.140383D-03	0.916933D-03
31	-0.124303D-04	-0.274900D-03	0.226603D-03	-0.176062D-03	-0.316311D-03
32	0.282910D-04	0.664878D-05	-0.391246D-04	-0.171618D-04	0.254707D-04
33	0.744298D-04	-0.903835D-05	0.137232D-03	0.893309D-04	0.947300D-04
34	0.361767D-06	0.856095D-05	-0.541800D-04	0.194688D-04	0.230424D-04
35	0.146105D-04	0.298509D-04	-0.174719D-04	0.196300D-04	0.916450D-05
36	0.173904D-04	0.254371D-04	-0.225581D-04	0.214739D-04	-0.115348D-04
37	0.539513D-04	0.889751D-04	0.271335D-03	0.104738D-04	-0.478326D-04
38	-0.113659D-05	0.285990D-05	0.206229D-04	0.631904D-06	-0.863980D-05
39	-0.854757D-06	-0.881014D-06	0.960622D-05	0.415087D-05	0.128240D-04
40	0.118999D-04	0.948430D-04	-0.643935D-04	-0.452466D-04	-0.129758D-03
41	-0.309726D-04	-0.268325D-05	0.628021D-04	0.938301D-05	-0.343116D-04
42	-0.105760D-04	-0.514505D-05	-0.956635D-05	0.111262D-04	-0.857454D-06
43	0.201950D-03	0.292275D-03	0.102274D-02	0.216207D-04	-0.149207D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.133889D-02				
32	0.318256D-04	0.228560D-02			
33	0.763500D-04	0.113725D-03	0.236682D-01		
34	0.131760D-05	-0.608287D-04	0.571059D-03	0.253228D-02	
35	-0.483397D-04	0.338953D-03	0.143808D-03	0.949156D-04	0.194781D-02
36	-0.152470D-04	0.195631D-04	-0.705503D-04	0.270039D-04	0.664261D-04
37	0.656001D-03	-0.374841D-03	0.603480D-03	-0.234135D-03	-0.443987D-03
38	0.447282D-05	-0.684968D-04	0.183342D-04	-0.246494D-05	-0.680473D-04
39	-0.137007D-05	0.138989D-04	0.117369D-03	0.590398D-05	-0.165445D-04
40	0.315797D-03	0.293090D-03	0.439115D-03	-0.278705D-03	-0.752446D-03
41	0.137780D-04	-0.637447D-06	-0.209083D-03	0.249927D-03	0.275873D-04
42	0.124709D-04	0.106714D-04	0.102879D-03	0.276957D-04	0.246195D-04
43	0.258870D-02	-0.141592D-02	0.202586D-02	-0.104674D-02	-0.166672D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.182063D-02				
37	-0.638992D-03	0.516574D-01			
38	-0.150217D-04	-0.753777D-05	0.234493D-03		
39	-0.676580D-05	0.516767D-04	0.484859D-05	0.973309D-04	
40	0.157750D-03	0.890045D-03	0.103756D-03	0.475815D-04	0.693554D-01
41	0.323747D-03	-0.203572D-03	-0.250278D-05	-0.175840D-06	0.228991D-02
42	0.369182D-04	0.257778D-03	0.103265D-04	0.177891D-05	0.163996D-03
43	-0.260668D-02	0.200742D+00	-0.648085D-04	0.170791D-03	0.348209D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	0.412420D-02	
42	0.453370D-03	0.425681D-03
43	-0.698838D-03	0.998859D-03

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			

2	0.215	1.000			
3	-0.056	-0.145	1.000		
4	0.063	0.219	-0.190	1.000	
5	-0.003	0.204	-0.138	0.231	1.000
6	-0.022	-0.027	-0.034	0.024	0.032
7	0.015	-0.017	0.000	0.011	-0.024
8	-0.015	-0.043	-0.015	0.028	-0.016
9	-0.010	0.000	-0.015	-0.002	-0.031
10	0.026	-0.022	0.016	-0.034	-0.012
11	0.006	0.072	0.031	0.024	0.019
12	-0.011	0.021	0.057	-0.015	-0.011
13	0.005	-0.018	-0.027	-0.027	-0.043
14	0.007	-0.025	0.009	0.001	0.011
15	0.027	-0.002	-0.033	0.024	0.037
16	0.017	0.011	-0.012	0.010	0.004
17	0.015	0.024	0.016	-0.025	0.008
18	0.004	0.014	-0.016	0.060	0.024
19	0.048	-0.019	0.004	-0.050	-0.032
20	-0.031	0.039	-0.005	0.026	0.000
21	-0.037	-0.010	0.001	-0.015	0.000
22	0.010	0.031	-0.035	-0.013	0.008
23	0.013	-0.005	-0.013	-0.014	-0.047
24	0.017	0.033	-0.018	0.009	0.021
25	-0.012	0.031	-0.056	-0.009	0.035
26	0.059	-0.020	0.007	0.001	0.015
27	0.015	-0.002	0.042	0.005	0.045
28	-0.060	0.010	-0.004	0.017	-0.003
29	0.066	0.015	0.033	-0.014	-0.006
30	0.024	0.002	0.031	0.008	-0.027
31	-0.005	-0.016	-0.053	-0.004	-0.034
32	0.053	0.033	0.014	-0.004	0.000
33	0.016	0.003	-0.031	0.007	0.002
34	0.020	-0.126	0.079	-0.128	-0.131
35	0.005	-0.005	0.015	0.049	0.039
36	-0.003	0.003	0.040	-0.007	-0.009
37	-0.001	-0.027	-0.006	0.038	-0.025
38	-0.047	0.006	-0.012	0.010	0.004
39	-0.011	0.026	-0.008	-0.041	0.006
40	0.017	-0.007	-0.023	0.003	0.025
41	0.067	0.081	0.001	0.014	0.031
42	0.030	0.016	-0.024	0.020	0.022
43	0.000	-0.024	-0.006	0.038	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.120	1.000			
8	0.017	0.062	1.000		
9	-0.028	-0.154	0.063	1.000	
10	0.016	-0.204	0.048	-0.200	1.000
11	-0.033	-0.012	0.036	-0.021	0.030
12	-0.044	-0.026	-0.019	-0.025	0.028
13	-0.017	0.010	0.062	-0.008	-0.003
14	-0.019	-0.031	-0.016	0.055	-0.038
15	0.030	0.005	0.002	0.022	-0.021
16	0.009	0.025	-0.038	-0.018	0.019
17	-0.052	0.006	-0.028	-0.027	0.039
18	-0.065	0.035	0.046	-0.057	0.013
19	0.009	-0.026	0.014	0.002	-0.006
20	-0.041	0.071	0.026	-0.011	0.030
21	-0.019	0.005	0.047	0.016	0.018
22	-0.011	0.015	0.083	0.007	0.009
23	-0.007	-0.071	0.028	0.050	-0.030
24	-0.013	0.000	-0.004	-0.015	0.039
25	-0.004	0.034	-0.009	-0.021	0.054
26	0.016	-0.028	-0.049	0.029	-0.041
27	0.042	0.000	-0.017	-0.003	-0.025
28	0.014	-0.010	-0.029	-0.042	0.040
29	0.033	-0.075	0.002	0.034	-0.025
30	-0.039	-0.030	0.021	-0.003	-0.050
31	0.010	0.031	0.013	-0.016	0.024
32	-0.012	0.154	-0.099	0.119	0.129
33	0.021	-0.008	0.016	-0.006	0.013
34	-0.013	0.023	0.021	-0.039	0.024
35	-0.012	-0.011	0.026	0.027	-0.008
36	-0.014	0.030	-0.023	-0.027	0.001
37	-0.023	0.015	0.040	0.028	-0.003
38	0.030	-0.009	-0.003	0.015	0.004
39	-0.018	0.033	0.029	-0.073	0.062
40	0.012	0.036	-0.022	-0.049	0.036
41	-0.004	-0.025	-0.011	0.007	0.056
42	0.003	0.030	0.024	-0.013	0.029
43	-0.030	0.012	0.040	0.028	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.301	1.000			
13	0.045	0.301	1.000		
14	-0.102	-0.151	-0.027	1.000	
15	-0.004	-0.110	-0.224	0.243	1.000
16	0.017	-0.002	0.022	-0.139	-0.238
17	0.098	0.239	0.015	-0.144	-0.037
18	0.038	0.120	0.334	-0.020	-0.206
19	0.025	-0.014	-0.054	0.062	0.249
20	0.005	0.009	0.028	-0.008	-0.053
21	0.040	0.215	0.046	-0.145	0.017
22	0.012	0.077	0.344	-0.048	-0.185
23	-0.030	-0.011	-0.026	0.094	0.229
24	-0.019	0.048	0.115	-0.043	-0.076
25	-0.011	0.013	0.040	-0.039	-0.031
26	-0.027	-0.250	-0.051	0.147	0.078
27	-0.015	-0.075	-0.362	0.039	0.204
28	0.006	-0.020	0.073	0.005	-0.272
29	-0.032	-0.012	-0.126	0.025	0.082
30	0.008	0.034	-0.070	0.062	0.052
31	0.023	0.044	0.102	-0.051	-0.067
32	0.001	-0.051	-0.016	0.012	-0.041
33	-0.027	-0.087	0.019	0.027	-0.034
34	0.020	0.010	0.035	0.000	-0.026
35	-0.008	0.018	0.005	0.004	-0.041
36	-0.014	-0.037	0.020	-0.008	-0.020
37	0.010	-0.014	0.030	0.056	-0.005
38	-0.006	-0.016	0.006	-0.002	0.004
39	0.036	0.018	0.030	0.005	-0.037
40	-0.017	-0.021	-0.010	0.002	-0.005
41	0.025	0.038	0.046	-0.059	-0.047
42	0.003	-0.028	-0.003	-0.023	0.001
43	0.009	-0.014	0.032	0.057	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.038	1.000			
18	0.036	0.248	1.000		
19	-0.206	-0.070	-0.189	1.000	

20	0.073	0.075	0.313	-0.260	1.000
21	-0.018	0.225	0.057	0.029	0.023
22	0.037	0.060	0.280	-0.048	0.057
23	-0.257	-0.025	-0.110	0.233	-0.070
24	0.009	0.048	0.272	-0.185	0.333
25	0.008	-0.007	0.079	-0.023	0.032
26	-0.040	-0.208	-0.036	-0.017	-0.001
27	-0.055	-0.061	-0.253	0.038	-0.066
28	0.203	0.005	0.067	-0.210	0.038
29	-0.013	-0.030	-0.300	0.197	-0.293
30	-0.043	-0.013	-0.109	0.008	-0.054
31	0.015	0.017	0.085	-0.049	0.068
32	0.039	-0.018	-0.019	0.008	0.006
33	0.007	-0.040	0.015	0.007	0.017
34	-0.032	0.013	0.023	0.005	0.028
35	0.056	-0.021	0.007	-0.055	0.032
36	0.023	-0.036	-0.023	0.002	-0.038
37	0.019	-0.004	0.013	-0.065	0.007
38	0.004	0.018	0.025	0.018	0.016
39	0.033	-0.005	-0.022	-0.027	0.001
40	0.013	0.032	0.004	0.013	-0.005
41	0.015	0.044	0.015	-0.013	0.030
42	-0.036	-0.003	0.023	0.031	0.010
43	0.018	-0.004	0.016	-0.064	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.211	1.000			
23	-0.030	-0.186	1.000		
24	0.069	0.289	-0.190	1.000	
25	0.022	0.332	-0.178	0.312	1.000
26	-0.208	-0.061	0.036	-0.026	0.007
27	-0.058	-0.292	0.045	-0.121	-0.075
28	-0.002	0.076	-0.224	0.069	0.021
29	-0.001	-0.123	0.062	-0.261	-0.070
30	-0.026	-0.315	0.155	-0.258	-0.338
31	0.033	0.094	-0.058	0.100	0.063
32	-0.017	-0.046	0.006	-0.023	-0.003
33	-0.013	0.033	0.000	0.004	0.022
34	-0.004	-0.014	0.015	0.039	-0.022
35	-0.033	-0.011	0.001	0.009	0.009

36	-0.006	0.004	-0.055	0.012	0.045
37	-0.019	0.040	-0.057	0.017	0.013
38	0.000	-0.026	-0.016	0.010	-0.010
39	0.022	-0.011	-0.008	-0.009	0.005
40	0.045	-0.023	-0.009	0.059	-0.033
41	-0.036	0.000	-0.025	0.049	-0.013
42	0.043	0.040	0.003	0.003	0.039
43	-0.017	0.040	-0.056	0.019	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.222	1.000			
28	-0.024	-0.184	1.000		
29	0.024	0.277	-0.204	1.000	
30	-0.012	0.233	-0.185	0.245	1.000
31	-0.032	-0.354	0.202	-0.255	-0.285
32	0.056	0.007	-0.027	-0.019	0.018
33	0.046	-0.003	0.029	0.031	0.020
34	0.001	0.008	-0.035	0.020	0.015
35	0.031	0.032	-0.013	0.024	0.007
36	0.039	0.028	-0.017	0.027	-0.009
37	0.022	0.018	0.039	0.002	-0.007
38	-0.007	0.009	0.044	0.002	-0.019
39	-0.008	-0.004	0.032	0.022	0.043
40	0.004	0.017	-0.008	-0.009	-0.016
41	-0.046	-0.002	0.032	0.008	-0.018
42	-0.048	-0.012	-0.015	0.029	-0.001
43	0.022	0.016	0.038	0.001	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.018	1.000			
33	0.014	0.015	1.000		
34	0.001	-0.025	0.074	1.000	
35	-0.030	0.161	0.021	0.043	1.000
36	-0.010	0.010	-0.011	0.013	0.035
37	0.079	-0.034	0.017	-0.020	-0.044
38	0.008	-0.094	0.008	-0.003	-0.101



39	-0.004	0.029	0.077	0.012	-0.038
40	0.033	0.023	0.011	-0.021	-0.065
41	0.006	0.000	-0.021	0.077	0.010
42	0.017	0.011	0.032	0.027	0.027
43	0.080	-0.033	0.015	-0.024	-0.043

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.066	1.000			
38	-0.023	-0.002	1.000		
39	-0.016	0.023	0.032	1.000	
40	0.014	0.015	0.026	0.018	1.000
41	0.118	-0.014	-0.003	0.000	0.135
42	0.042	0.055	0.033	0.009	0.030
43	-0.069	0.999	-0.005	0.020	0.015

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.342	1.000	
43	-0.012	0.055	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.023	38
200	1.011	39
300	1.014	38
400	1.014	35

500	1.008	35
600	1.004	39
700	1.006	37
800	1.003	37
900	1.001	33
1000	1.003	14

Worsening of psychological distress, job control interaction

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122

186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value   0.100

Number of missing data patterns                   9

## PROPORTION OF DATA PRESENT

Covariance Coverage					
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.950	0.950	0.950		
KES15	0.919	0.919	0.919	0.919	
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.912
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

Covariance Coverage			
	BULLY15	PRESS15	DUTIES15
BULLY15	0.913		
PRESS15	0.912	0.913	
DUTIES15	0.913	0.913	0.913

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16

Category 1	0.877	5135.000
Category 2	0.123	720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15	0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15	3.221	-0.400	1.000	7.67%	2.000	3.000	3.000
5345.000	1.097	-0.356	5.000	8.62%	4.000	4.000	
BULLY15	0.000	3.522	-0.153	88.29%	-0.153	-0.153	-0.153
5344.000	0.216	14.164	3.847	0.09%	-0.153	-0.153	
PRESS15	0.000	0.267	-1.445	19.70%	-0.445	-0.445	-0.445
5345.000	1.001	-0.357	2.555	2.75%	0.555	0.555	
DUTIES15	0.000	-1.296	-3.149	2.34%	-0.149	-0.149	-0.149
5347.000	0.828	1.939	0.851	39.74%	-0.149	0.851	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters	43
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## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.138	0.033	0.000	0.071	0.202	*
BULLY15	0.111	0.048	0.009	0.017	0.205	*
DUTIES15	-0.081	0.028	0.001	-0.136	-0.030	*
PRESS15	-0.033	0.026	0.094	-0.085	0.017	
KES15	1.622	0.087	0.000	1.453	1.798	*
KES15 WITH						
PHY15	0.054	0.003	0.000	0.048	0.061	*
CHOICE15	-0.038	0.004	0.000	-0.047	-0.029	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.045	0.062	*
DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*
PHY15 WITH						
CHOICE15	-0.087	0.010	0.000	-0.106	-0.065	*
BULLY15	0.025	0.005	0.000	0.015	0.034	*
PRESS15	0.063	0.010	0.000	0.042	0.083	*
DUTIES15	-0.056	0.009	0.000	-0.074	-0.038	*
CHOICE15 WITH						
BULLY15	-0.049	0.007	0.000	-0.062	-0.037	*
PRESS15	-0.067	0.015	0.000	-0.095	-0.036	*
DUTIES15	0.154	0.013	0.000	0.130	0.182	*
BULLY15 WITH						
PRESS15	0.091	0.006	0.000	0.078	0.103	*
DUTIES15	-0.058	0.006	0.000	-0.070	-0.047	*
PRESS15 WITH						
DUTIES15	-0.156	0.013	0.000	-0.181	-0.131	*
Means						
PHY15	0.002	0.010	0.435	-0.018	0.021	
KES15	0.003	0.004	0.217	-0.005	0.011	
BULLY15	0.001	0.006	0.425	-0.011	0.014	
PRESS15	0.001	0.013	0.457	-0.025	0.027	
DUTIES15	-0.003	0.013	0.409	-0.029	0.022	

Variances						
PHY15	0.537	0.010	0.000	0.516	0.557	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.056	0.021	0.000	1.020	1.099	*
BULLY15	0.216	0.004	0.000	0.208	0.225	*
PRESS15	1.002	0.020	0.000	0.966	1.042	*
DUTIES15	0.829	0.016	0.000	0.799	0.860	*
Between Level						
S1 ON						
PRAFAC	0.007	0.031	0.403	-0.051	0.072	
KESCAT16 ON						
PRAFAC	0.017	0.029	0.282	-0.037	0.072	
CHOICE15	-0.141	0.166	0.195	-0.464	0.178	
PRAFAC WITH						
CHOICE15	0.027	0.046	0.264	-0.064	0.119	
Means						
PRAFAC	-0.182	0.152	0.120	-0.485	0.109	
CHOICE15	3.305	0.037	0.000	3.234	3.379	*
Intercepts						
S1	-0.057	0.034	0.059	-0.123	0.011	
Thresholds						
KESCAT16\$1	0.898	0.540	0.045	-0.159	1.961	
Variances						
PRAFAC	1.359	0.269	0.000	0.962	2.009	*
CHOICE15	0.057	0.013	0.000	0.037	0.088	*
Residual Variances						
KESCAT16	0.010	0.008	0.000	0.001	0.033	*
S1	0.009	0.010	0.000	0.001	0.039	*

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON CHOICE15	-0.051	0.026	0.028	-0.101	0.001	
KESCAT16 ON						
PHY15	0.087	0.021	0.000	0.046	0.129	*
BULLY15	0.044	0.019	0.009	0.006	0.080	*
DUTIES15	-0.065	0.022	0.002	-0.107	-0.023	*
PRESS15	-0.029	0.022	0.090	-0.073	0.015	
KES15	0.434	0.019	0.000	0.395	0.471	*
KES15 WITH						
PHY15	0.240	0.013	0.000	0.214	0.264	*
CHOICE15	-0.119	0.014	0.000	-0.146	-0.092	*
BULLY15	0.154	0.013	0.000	0.128	0.180	*
PRESS15	0.171	0.013	0.000	0.145	0.198	*
DUTIES15	-0.180	0.013	0.000	-0.205	-0.154	*
PHY15 WITH						
CHOICE15	-0.115	0.014	0.000	-0.142	-0.088	*
BULLY15	0.072	0.014	0.000	0.045	0.098	*
PRESS15	0.086	0.014	0.000	0.059	0.112	*
DUTIES15	-0.084	0.014	0.000	-0.111	-0.058	*
CHOICE15 WITH						
BULLY15	-0.103	0.014	0.000	-0.129	-0.076	*
PRESS15	-0.065	0.014	0.000	-0.092	-0.036	*
DUTIES15	0.165	0.014	0.000	0.139	0.193	*
BULLY15 WITH						
PRESS15	0.195	0.013	0.000	0.168	0.220	*
DUTIES15	-0.138	0.013	0.000	-0.164	-0.112	*
PRESS15 WITH						
DUTIES15	-0.171	0.013	0.000	-0.197	-0.144	*
Means						
PHY15	0.002	0.014	0.427	-0.024	0.028	
KES15	0.010	0.013	0.230	-0.017	0.037	
BULLY15	0.003	0.014	0.429	-0.024	0.029	



PRESS15	0.002	0.013	0.449	-0.024	0.028	
DUTIES15	-0.003	0.014	0.412	-0.032	0.025	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	0.083	0.359	0.403	-0.657	0.767	
KESCAT16 ON						
PRAFAC	0.165	0.276	0.282	-0.394	0.635	
CHOICE15	-0.295	0.319	0.195	-0.880	0.376	
PRAFAC WITH						
CHOICE15	0.096	0.154	0.264	-0.226	0.383	
Means						
PRAFAC	-0.157	0.129	0.120	-0.416	0.094	
CHOICE15	13.889	1.529	0.000	11.190	17.251	*
Intercepts						
S1	-0.545	0.497	0.059	-1.891	0.086	
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.785	0.217	0.000	0.172	0.991	*
S1	0.938	0.176	0.000	0.318	1.000	*
R-SQUARE						
Within-Level R-Square Averaged Across Clusters						
	Posterior	One-Tailed		95% C.I.		

Variable	Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.255	0.018	0.000	0.220	0.291

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.215	0.217	0.000	0.009	0.828

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.062	0.176	0.000	0.000	0.682

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16  
 \_\_\_\_\_  
 0

NU

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____
0	0	0	0	0

NU

PRESS15	DUTIES15
_____	_____
0	0

LAMBDA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____

KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

# ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	0	3

ALPHA		
PRESS15		DUTIES15
	<hr/>	<hr/>
	4	5

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	6	7	0	8
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15		DUTIES15
	<hr/>	<hr/>
KESCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>43</u>

NU			
KESCAT16	PRAFAC	CHOICE15	
<u>0</u>	<u>0</u>	<u>0</u>	

	LAMBDA			
	S1	KESCAT16	PRAFAC	CHOICE15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0

	THETA		
	KESCAT16	PRAFAC	CHOICE15
KESCAT16	<u>0</u>	<u></u>	<u></u>
PRAFAC	0	0	
CHOICE15	0	0	0

	ALPHA			
	S1	KESCAT16	PRAFAC	CHOICE15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

BETA				
	S1	KESCAT16	PRAFAC	CHOICE15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0

PSI				
	S1	KESCAT16	PRAFAC	CHOICE15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	39		
PRAFAC	0	0	40	
CHOICE15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU	
	KESCAT16
	<u>0.000</u>

NU					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000

KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000			
PHY15	0.000	0.268		
KES15	0.000	0.000	0.048	
CHOICE15	0.000	0.000	0.000	0.549
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.108
DUTIES15	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15



PRESS15	<u>0.501</u>	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
KESCAT16	
	<u>1.091</u>

NU			
KESCAT16	PRAFAC	CHOICE15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

LAMBDA				
S1	KESCAT16	PRAFAC	CHOICE15	
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	1.000

THETA			
KESCAT16	PRAFAC	CHOICE15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PRAFAC	0.000		
CHOICE15	0.000	0.000	

ALPHA			
S1	KESCAT16	PRAFAC	CHOICE15
<u>0.000</u>	<u>0.000</u>	<u>0.006</u>	<u>3.221</u>

BETA			
S1	KESCAT16	PRAFAC	CHOICE15

S1	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000

PSI				
	S1	KESCAT16	PRAFAC	CHOICE15
S1	1.000			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.506	
CHOICE15	0.000	0.000	0.000	0.549

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity

Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.100186D-03				
2	0.103876D-04	0.165429D-04			
3	0.397912D-05	0.463320D-05	0.421709D-04		
4	0.113685D-04	0.110553D-04	0.138743D-04	0.179277D-03	
5	-0.129378D-04	-0.112494D-04	-0.118782D-04	-0.344097D-04	0.165321D-03
6	-0.984302D-05	-0.534504D-05	-0.380228D-05	-0.242839D-04	0.692096D-05
7	0.814203D-05	0.606431D-05	0.110449D-04	0.214701D-04	0.257677D-05
8	-0.268280D-04	-0.530042D-05	0.564404D-05	-0.400288D-04	0.226703D-04
9	0.476939D-06	-0.137312D-06	-0.101072D-05	0.147020D-04	-0.774041D-05
10	-0.134310D-04	-0.455885D-05	-0.384665D-05	-0.638037D-05	0.239319D-04
11	0.818940D-06	-0.357095D-08	0.168327D-05	0.508655D-05	-0.458209D-05
12	0.678046D-06	0.139355D-08	0.992089D-06	0.318646D-07	0.236586D-06
13	-0.427505D-06	0.133937D-06	0.753231D-06	-0.537980D-06	0.649073D-07
14	0.159077D-05	0.126168D-05	0.629544D-06	0.383493D-05	0.175021D-05
15	0.112620D-05	0.640203D-06	-0.109890D-05	0.301132D-05	-0.113009D-05
16	0.305889D-05	-0.293870D-05	0.283662D-05	0.624777D-05	0.555277D-05
17	0.124161D-05	0.579915D-07	0.963019D-06	0.253625D-05	0.395304D-06
18	0.231895D-06	0.225329D-06	0.923602D-06	0.335860D-06	-0.689942D-06

19	0.643637D-06	0.167217D-05	-0.108774D-05	-0.264041D-05	-0.745223D-06
20	-0.114302D-05	0.373266D-06	0.521323D-06	0.835421D-06	-0.620144D-07
21	-0.385274D-06	0.182726D-06	-0.454817D-06	0.146945D-05	0.712198D-05
22	0.474359D-06	0.192070D-06	-0.495107D-07	0.148719D-05	0.145971D-05
23	0.565353D-05	0.423877D-05	0.201995D-05	0.111998D-06	-0.111273D-04
24	-0.927988D-06	-0.665929D-07	-0.105658D-05	-0.130238D-05	0.133783D-05
25	-0.117818D-04	0.228310D-05	-0.460589D-05	-0.688837D-05	0.302253D-06
26	0.235863D-05	-0.268654D-06	-0.378619D-05	-0.843733D-06	0.172844D-05
27	-0.110098D-05	-0.870857D-06	-0.189135D-05	-0.145565D-05	0.302887D-05
28	-0.655295D-05	-0.860042D-06	-0.199261D-05	0.708612D-05	0.122862D-05
29	-0.446396D-06	-0.369022D-06	-0.118987D-05	-0.105714D-05	0.955914D-06
30	0.257234D-05	0.137260D-05	-0.200217D-05	-0.121568D-05	0.151128D-05
31	0.160739D-05	0.131855D-05	0.291767D-05	0.619689D-05	0.214347D-05
32	-0.311361D-05	-0.199322D-05	0.559426D-05	-0.215363D-05	0.375829D-05
33	-0.239991D-04	0.133360D-04	0.343337D-05	0.692522D-04	-0.207555D-04
34	-0.158505D-04	-0.894447D-05	-0.116436D-04	-0.125165D-04	0.105799D-04
35	0.636686D-06	-0.239335D-05	0.693639D-05	0.965812D-05	0.121129D-04
36	0.978189D-07	-0.760812D-06	0.374706D-05	0.141169D-04	-0.521134D-05
37	-0.538216D-04	0.951175D-05	-0.126484D-04	0.161561D-04	0.269171D-04
38	0.128930D-05	-0.338461D-06	-0.147209D-05	-0.943648D-06	-0.461786D-05
39	-0.910822D-06	-0.170214D-06	0.186012D-05	0.217580D-05	-0.816968D-06
40	-0.140528D-04	-0.148500D-04	-0.558260D-05	0.190948D-04	-0.907919D-04
41	0.126796D-04	-0.352825D-05	0.562049D-05	-0.611960D-05	0.112440D-06
42	0.167141D-05	0.312305D-05	0.448670D-05	0.896304D-06	-0.346176D-05
43	-0.174548D-03	0.344160D-04	-0.363682D-04	0.408537D-04	0.721599D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.111988D-02				
7	-0.623069D-03	0.763825D-02			
8	-0.146989D-04	-0.379192D-03	0.231203D-02		
9	-0.730545D-04	-0.270061D-03	-0.210329D-03	0.687986D-03	
10	-0.355140D-04	0.200561D-03	0.137205D-03	0.967505D-04	0.772250D-03
11	0.989755D-06	0.240829D-04	0.162619D-04	0.297958D-05	-0.894463D-05
12	-0.832310D-06	0.998949D-05	0.362302D-05	0.175759D-05	-0.498018D-06
13	-0.100268D-06	0.824122D-06	0.309394D-05	0.161753D-05	-0.100226D-06
14	-0.389104D-05	0.149374D-04	0.178875D-04	-0.821253D-05	0.148709D-04
15	-0.284361D-06	0.776966D-05	-0.674202D-06	-0.169894D-05	0.325555D-05
16	-0.274143D-04	-0.659086D-05	-0.745609D-05	0.188540D-04	-0.212925D-04
17	-0.653262D-05	0.126390D-04	-0.586044D-06	0.459620D-05	-0.321232D-05
18	0.487680D-06	-0.666109D-06	0.541566D-05	0.105254D-06	0.126566D-05
19	0.640610D-05	-0.146776D-04	0.169725D-05	-0.117460D-05	0.306499D-05

20	-0.357757D-05	0.116503D-04	0.668505D-05	0.981060D-06	-0.293180D-05
21	-0.103274D-04	0.472857D-04	0.117143D-04	0.103668D-04	0.887876D-05
22	0.504793D-08	-0.180851D-05	0.152298D-06	0.715006D-05	-0.212059D-05
23	0.103018D-04	0.172207D-04	-0.138914D-04	-0.702926D-06	0.254632D-04
24	-0.665472D-05	0.167040D-04	0.486294D-05	-0.972441D-06	-0.143974D-05
25	-0.658418D-05	0.111275D-04	0.238517D-04	-0.599710D-05	0.202618D-05
26	0.517222D-05	-0.944932D-05	-0.340873D-05	0.380708D-05	0.304163D-05
27	0.696690D-07	0.205256D-04	-0.306573D-05	0.740806D-06	0.724766D-05
28	-0.100713D-05	0.449747D-04	-0.819756D-05	-0.657440D-05	0.631607D-05
29	-0.279204D-05	-0.117406D-04	-0.275952D-05	0.554933D-05	0.791694D-05
30	-0.270029D-05	0.204158D-04	0.116470D-04	-0.112049D-04	0.123596D-04
31	-0.107125D-04	0.504044D-04	-0.411443D-05	-0.110040D-06	-0.720915D-05
32	0.405004D-04	0.890796D-04	0.812638D-04	-0.212770D-04	-0.123518D-03
33	-0.170210D-03	-0.321219D-03	0.185824D-04	-0.237773D-04	-0.142780D-03
34	0.372748D-04	-0.391633D-04	0.109557D-03	-0.264468D-04	-0.318522D-05
35	0.792546D-05	0.104746D-03	0.946617D-05	-0.202246D-04	-0.756712D-05
36	0.601608D-04	0.686230D-04	-0.107336D-04	0.307394D-04	-0.131092D-04
37	0.217473D-04	-0.679920D-03	0.111585D-03	-0.630503D-05	-0.149776D-03
38	0.552445D-05	0.692540D-04	-0.789565D-05	-0.697162D-05	0.123826D-05
39	-0.589095D-05	0.334612D-04	0.209367D-04	0.131748D-04	0.120212D-05
40	-0.650865D-04	-0.133428D-03	-0.339289D-03	-0.456677D-04	0.271266D-03
41	0.994120D-05	-0.494857D-04	0.274382D-04	-0.239266D-05	0.489091D-04
42	0.457967D-05	0.462603D-04	0.209252D-04	-0.168592D-04	0.103971D-04
43	0.142210D-03	-0.102813D-02	0.302593D-03	-0.591848D-04	-0.530914D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.105213D-03				
12	0.105802D-04	0.104192D-04			
13	0.166926D-05	0.187222D-05	0.328610D-05		
14	-0.185311D-04	-0.623815D-05	-0.157857D-05	0.110121D-03	
15	-0.159753D-05	-0.251967D-05	-0.147058D-05	0.115008D-04	0.198731D-04
16	0.627904D-05	0.234856D-05	0.135428D-06	-0.310113D-04	-0.120207D-04
17	0.370187D-05	0.212460D-05	0.332957D-06	-0.563503D-05	0.160516D-06
18	0.573667D-06	0.661142D-06	0.969637D-06	-0.897186D-06	-0.998898D-06
19	-0.268646D-05	-0.188167D-05	-0.865576D-06	0.495204D-05	0.533702D-05
20	0.271814D-05	0.360635D-06	0.260962D-06	-0.245035D-06	0.151231D-06
21	0.799045D-05	0.544436D-05	0.664931D-06	-0.955712D-05	-0.494471D-06
22	0.409461D-06	0.806138D-06	0.184521D-05	-0.616483D-06	-0.154821D-05
23	0.458481D-06	-0.137273D-05	-0.700613D-06	0.164987D-04	0.115728D-04
24	0.815487D-07	0.156157D-06	0.246512D-06	-0.701466D-07	-0.161173D-06
25	0.637818D-05	0.159957D-05	0.127967D-05	-0.517452D-05	-0.822295D-06

26	-0.111475D-04	-0.573228D-05	-0.135309D-05	0.197581D-04	0.689967D-06
27	-0.235130D-05	-0.172769D-05	-0.149191D-05	0.306574D-05	0.244373D-05
28	0.202639D-05	0.101226D-05	0.917084D-06	-0.119373D-04	-0.112152D-04
29	-0.106692D-05	-0.908474D-06	-0.550275D-06	-0.143644D-05	0.973089D-07
30	-0.399497D-05	-0.153326D-05	-0.322284D-06	0.370083D-05	0.168463D-05
31	0.484905D-05	0.696144D-07	0.209481D-06	-0.662221D-05	-0.142539D-05
32	0.893533D-05	0.768201D-06	0.105184D-05	-0.138417D-04	0.233242D-05
33	0.591084D-05	-0.244123D-05	-0.623987D-05	-0.664811D-04	0.199070D-04
34	-0.211384D-05	0.779748D-06	-0.672661D-06	0.178420D-04	0.268256D-05
35	0.272749D-05	-0.204554D-06	0.599836D-06	-0.190519D-04	-0.143755D-05
36	0.441458D-05	-0.230938D-05	-0.372562D-06	-0.800861D-05	-0.385104D-05
37	-0.122989D-04	-0.779616D-05	-0.423138D-05	0.400835D-04	0.237669D-04
38	-0.129351D-05	-0.876849D-06	-0.107025D-05	-0.234639D-05	0.134722D-05
39	0.236213D-06	0.410349D-06	-0.566393D-06	-0.680797D-06	-0.447011D-06
40	0.496946D-04	-0.491213D-05	0.103130D-05	0.403437D-04	0.544983D-05
41	-0.667388D-05	-0.371439D-05	0.277954D-05	0.442115D-04	0.141399D-04
42	0.399348D-05	-0.451033D-06	0.606179D-06	0.500294D-05	0.580367D-07
43	-0.399454D-04	-0.248960D-04	-0.146591D-04	0.141531D-03	0.773409D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.431070D-03				
17	0.175189D-05	0.218444D-04			
18	-0.110913D-06	0.258922D-05	0.397037D-05		
19	-0.138690D-04	-0.425216D-05	-0.169727D-05	0.437118D-04	
20	0.119833D-05	0.253801D-05	0.182421D-05	-0.335060D-05	0.184426D-04
21	-0.902972D-05	0.886276D-05	0.119283D-05	-0.263480D-05	-0.304205D-06
22	-0.125578D-05	0.447808D-06	0.187867D-05	-0.170900D-05	-0.810236D-07
23	-0.282389D-04	0.286024D-05	-0.359426D-06	0.192960D-04	0.155973D-05
24	0.123185D-06	0.273023D-05	0.234561D-05	-0.150909D-05	0.848320D-05
25	-0.579809D-05	0.234433D-05	0.134068D-05	-0.171782D-05	0.131438D-05
26	-0.681008D-05	-0.470705D-05	-0.791446D-06	0.312919D-05	-0.176528D-05
27	-0.389324D-05	-0.627816D-06	-0.118396D-05	0.985887D-06	-0.368697D-06
28	0.612612D-04	0.208735D-05	0.779583D-06	-0.114649D-04	0.124600D-05
29	-0.625183D-05	-0.172161D-05	-0.163466D-05	0.573199D-05	-0.504831D-05
30	-0.598946D-05	0.115843D-07	-0.313572D-06	0.238207D-05	-0.945811D-06
31	0.149768D-04	0.438199D-05	0.302766D-06	-0.339813D-05	0.189207D-06
32	0.228892D-04	0.872549D-06	0.920643D-06	-0.411994D-05	-0.884827D-05
33	0.103750D-03	0.337006D-04	-0.108159D-04	0.238176D-04	0.450966D-05
34	-0.220181D-05	-0.349824D-06	0.169533D-05	0.244546D-05	0.331618D-06
35	-0.395283D-05	-0.130931D-05	-0.182380D-05	-0.316159D-05	-0.644216D-05
36	0.107587D-04	0.371421D-05	0.420590D-06	-0.484117D-05	-0.172532D-05

37	0.445184D-05	0.899045D-05	0.966473D-06	0.800598D-04	-0.182466D-05
38	-0.461867D-06	0.524507D-06	-0.124697D-05	0.145174D-05	-0.254129D-05
39	0.535106D-05	0.251218D-05	-0.449014D-06	0.775255D-06	0.785683D-06
40	-0.286365D-03	-0.689094D-05	0.291092D-04	-0.631013D-04	-0.219129D-04
41	0.133134D-04	-0.394296D-05	0.392183D-05	-0.603480D-05	0.124606D-05
42	-0.176176D-05	-0.406512D-06	0.333383D-06	0.298848D-05	0.291614D-05
43	0.268383D-04	0.256263D-04	0.203181D-05	0.259372D-03	-0.485221D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.106399D-03				
22	0.102882D-04	0.173965D-04			
23	-0.125404D-04	-0.109408D-04	0.216592D-03		
24	0.283851D-05	0.436236D-05	-0.855746D-05	0.408485D-04	
25	0.206771D-04	0.189793D-04	-0.186166D-04	0.317497D-04	0.390315D-03
26	-0.177754D-04	-0.214138D-05	0.309560D-05	-0.651190D-06	-0.404302D-05
27	-0.227411D-05	-0.285788D-05	0.324521D-05	-0.516397D-06	-0.163368D-05
28	-0.215704D-05	0.240859D-05	-0.343337D-04	0.469514D-05	-0.243882D-05
29	-0.321677D-05	-0.104898D-05	0.416125D-06	-0.610414D-05	-0.499112D-05
30	-0.116213D-04	-0.118640D-04	0.303828D-04	-0.125453D-04	-0.583117D-04
31	0.382985D-05	0.318791D-05	-0.149552D-04	0.575261D-05	0.151769D-04
32	0.235366D-05	-0.344140D-06	0.411542D-05	-0.454149D-05	0.207052D-04
33	-0.650849D-05	-0.149609D-04	-0.344463D-05	-0.184071D-05	0.171607D-03
34	-0.542787D-05	0.496524D-07	0.535341D-05	-0.326622D-05	0.310051D-04
35	0.103103D-04	-0.316030D-05	0.970852D-05	-0.403798D-05	-0.816737D-05
36	0.492141D-05	0.271180D-05	-0.226411D-04	0.391694D-05	0.115768D-04
37	0.393189D-04	-0.145653D-04	0.132754D-03	-0.895271D-05	-0.816435D-04
38	0.295215D-05	0.231268D-06	-0.435573D-05	0.141536D-06	0.381545D-05
39	0.300895D-05	0.568790D-06	0.216899D-05	0.616756D-06	-0.627764D-06
40	0.135276D-03	0.352664D-04	-0.111933D-03	-0.228320D-04	0.115299D-04
41	-0.260430D-05	0.937807D-05	0.358647D-04	0.826012D-05	0.425160D-04
42	-0.170079D-05	0.258139D-05	0.498110D-05	-0.231103D-06	0.134187D-04
43	0.130983D-03	-0.493414D-04	0.434318D-03	-0.340187D-04	-0.272913D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.857491D-04				
27	0.954299D-05	0.147992D-04			
28	-0.156299D-04	-0.643961D-05	0.179680D-03		
29	0.259115D-05	0.344329D-05	-0.795417D-05	0.338780D-04	

30	0.917913D-05	0.973236D-05	-0.122714D-04	0.145216D-04	0.162465D-03
31	-0.226806D-04	-0.158835D-04	0.475900D-04	-0.172204D-04	-0.535690D-04
32	-0.694697D-05	0.248760D-05	-0.156496D-04	0.291056D-05	0.892567D-05
33	-0.536717D-04	-0.368588D-06	0.602272D-05	-0.305586D-04	-0.164053D-04
34	-0.237865D-06	-0.388457D-05	0.191075D-05	-0.542718D-05	-0.971737D-05
35	0.118749D-05	0.224060D-05	-0.488289D-05	0.612375D-05	-0.114246D-04
36	0.127262D-05	0.339492D-05	0.294318D-05	-0.441939D-05	0.115074D-04
37	0.943116D-04	0.189816D-04	-0.859762D-05	-0.100973D-04	-0.246470D-04
38	-0.262236D-05	0.201244D-05	-0.888991D-06	0.190654D-05	-0.337097D-05
39	0.336599D-06	0.305958D-06	0.644489D-06	-0.161452D-05	-0.291212D-05
40	0.169648D-04	0.252460D-05	-0.748221D-04	-0.145812D-04	0.239045D-04
41	0.358351D-05	-0.105230D-04	-0.171707D-04	-0.293696D-05	0.830325D-05
42	-0.677709D-06	-0.132489D-05	-0.416966D-07	-0.327750D-05	-0.266035D-05
43	0.293723D-03	0.651645D-04	-0.307230D-04	-0.342109D-04	-0.961692D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.250672D-03				
32	-0.194635D-04	0.118834D-02			
33	0.197220D-04	-0.996930D-04	0.231036D-01		
34	0.959373D-05	-0.283096D-05	0.581900D-03	0.136073D-02	
35	-0.458651D-05	0.158335D-03	-0.163238D-03	-0.265173D-04	0.987251D-03
36	-0.260284D-05	-0.131612D-04	-0.658791D-04	-0.253765D-04	0.666351D-04
37	-0.141610D-03	-0.214237D-04	0.251003D-03	0.724967D-04	-0.189680D-03
38	0.462876D-05	0.274629D-04	0.476819D-05	-0.908893D-05	0.352635D-04
39	-0.223113D-05	-0.141452D-04	0.891282D-05	0.799964D-05	0.131412D-04
40	0.584595D-04	-0.305885D-03	-0.845416D-03	0.526617D-04	-0.139180D-03
41	-0.137953D-04	0.756560D-04	0.284735D-03	0.397858D-04	-0.515103D-04
42	-0.613241D-06	0.771560D-05	0.947197D-05	0.176600D-04	-0.396133D-05
43	-0.437290D-03	-0.101396D-03	0.742057D-03	0.161684D-03	-0.539863D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.817195D-03				
37	-0.498597D-03	0.273834D-01			
38	0.125845D-04	-0.271243D-04	0.108328D-03		
39	0.240051D-04	0.136880D-03	0.536660D-05	0.700838D-04	
40	-0.304592D-04	-0.631209D-03	0.353747D-04	0.675772D-05	0.723807D-01
41	0.917844D-05	0.793009D-04	-0.501359D-05	-0.309079D-05	0.154333D-02
42	-0.167490D-04	0.170739D-03	-0.188138D-05	-0.305423D-05	0.121246D-03



43 -0.166524D-02 0.891149D-01 -0.461134D-04 0.467508D-03 -0.212983D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.210750D-02		
42	0.921724D-04	0.169030D-03	
43	0.281034D-03	0.544146D-03	0.291227D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.255	1.000			
3	0.061	0.175	1.000		
4	0.085	0.203	0.160	1.000	
5	-0.101	-0.215	-0.142	-0.200	1.000
6	-0.029	-0.039	-0.017	-0.054	0.016
7	0.009	0.017	0.019	0.018	0.002
8	-0.056	-0.027	0.018	-0.062	0.037
9	0.002	-0.001	-0.006	0.042	-0.023
10	-0.048	-0.040	-0.021	-0.017	0.067
11	0.008	0.000	0.025	0.037	-0.035
12	0.021	0.000	0.047	0.001	0.006
13	-0.024	0.018	0.064	-0.022	0.003
14	0.015	0.030	0.009	0.027	0.013
15	0.025	0.035	-0.038	0.050	-0.020
16	0.015	-0.035	0.021	0.022	0.021
17	0.027	0.003	0.032	0.041	0.007
18	0.012	0.028	0.071	0.013	-0.027
19	0.010	0.062	-0.025	-0.030	-0.009
20	-0.027	0.021	0.019	0.015	-0.001
21	-0.004	0.004	-0.007	0.011	0.054
22	0.011	0.011	-0.002	0.027	0.027
23	0.038	0.071	0.021	0.001	-0.059
24	-0.015	-0.003	-0.025	-0.015	0.016
25	-0.060	0.028	-0.036	-0.026	0.001
26	0.025	-0.007	-0.063	-0.007	0.015
27	-0.029	-0.056	-0.076	-0.028	0.061
28	-0.049	-0.016	-0.023	0.039	0.007
29	-0.008	-0.016	-0.031	-0.014	0.013
30	0.020	0.026	-0.024	-0.007	0.009

31	0.010	0.020	0.028	0.029	0.011
32	-0.009	-0.014	0.025	-0.005	0.008
33	-0.016	0.022	0.003	0.034	-0.011
34	-0.043	-0.060	-0.049	-0.025	0.022
35	0.002	-0.019	0.034	0.023	0.030
36	0.000	-0.007	0.020	0.037	-0.014
37	-0.032	0.014	-0.012	0.007	0.013
38	0.012	-0.008	-0.022	-0.007	-0.035
39	-0.011	-0.005	0.034	0.019	-0.008
40	-0.005	-0.014	-0.003	0.005	-0.026
41	0.028	-0.019	0.019	-0.010	0.000
42	0.013	0.059	0.053	0.005	-0.021
43	-0.032	0.016	-0.010	0.006	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.213	1.000			
8	-0.009	-0.090	1.000		
9	-0.083	-0.118	-0.167	1.000	
10	-0.038	0.083	0.103	0.133	1.000
11	0.003	0.027	0.033	0.011	-0.031
12	-0.008	0.035	0.023	0.021	-0.006
13	-0.002	0.005	0.035	0.034	-0.002
14	-0.011	0.016	0.035	-0.030	0.051
15	-0.002	0.020	-0.003	-0.015	0.026
16	-0.039	-0.004	-0.007	0.035	-0.037
17	-0.042	0.031	-0.003	0.037	-0.025
18	0.007	-0.004	0.057	0.002	0.023
19	0.029	-0.025	0.005	-0.007	0.017
20	-0.025	0.031	0.032	0.009	-0.025
21	-0.030	0.052	0.024	0.038	0.031
22	0.000	-0.005	0.001	0.065	-0.018
23	0.021	0.013	-0.020	-0.002	0.062
24	-0.031	0.030	0.016	-0.006	-0.008
25	-0.010	0.006	0.025	-0.012	0.004
26	0.017	-0.012	-0.008	0.016	0.012
27	0.001	0.061	-0.017	0.007	0.068
28	-0.002	0.038	-0.013	-0.019	0.017
29	-0.014	-0.023	-0.010	0.036	0.049
30	-0.006	0.018	0.019	-0.034	0.035
31	-0.020	0.036	-0.005	0.000	-0.016

32	0.035	0.030	0.049	-0.024	-0.129
33	-0.033	-0.024	0.003	-0.006	-0.034
34	0.030	-0.012	0.062	-0.027	-0.003
35	0.008	0.038	0.006	-0.025	-0.009
36	0.063	0.027	-0.008	0.041	-0.017
37	0.004	-0.047	0.014	-0.001	-0.033
38	0.016	0.076	-0.016	-0.026	0.004
39	-0.021	0.046	0.052	0.060	0.005
40	-0.007	-0.006	-0.026	-0.006	0.036
41	0.006	-0.012	0.012	-0.002	0.038
42	0.011	0.041	0.033	-0.049	0.029
43	0.008	-0.022	0.012	-0.004	-0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.320	1.000			
13	0.090	0.320	1.000		
14	-0.172	-0.184	-0.083	1.000	
15	-0.035	-0.175	-0.182	0.246	1.000
16	0.029	0.035	0.004	-0.142	-0.130
17	0.077	0.141	0.039	-0.115	0.008
18	0.028	0.103	0.268	-0.043	-0.112
19	-0.040	-0.088	-0.072	0.071	0.181
20	0.062	0.026	0.034	-0.005	0.008
21	0.076	0.164	0.036	-0.088	-0.011
22	0.010	0.060	0.244	-0.014	-0.083
23	0.003	-0.029	-0.026	0.107	0.176
24	0.001	0.008	0.021	-0.001	-0.006
25	0.031	0.025	0.036	-0.025	-0.009
26	-0.117	-0.192	-0.081	0.203	0.017
27	-0.060	-0.139	-0.214	0.076	0.142
28	0.015	0.023	0.038	-0.085	-0.188
29	-0.018	-0.048	-0.052	-0.024	0.004
30	-0.031	-0.037	-0.014	0.028	0.030
31	0.030	0.001	0.007	-0.040	-0.020
32	0.025	0.007	0.017	-0.038	0.015
33	0.004	-0.005	-0.023	-0.042	0.029
34	-0.006	0.007	-0.010	0.046	0.016
35	0.008	-0.002	0.011	-0.058	-0.010
36	0.015	-0.025	-0.007	-0.027	-0.030
37	-0.007	-0.015	-0.014	0.023	0.032

38	-0.012	-0.026	-0.057	-0.021	0.029
39	0.003	0.015	-0.037	-0.008	-0.012
40	0.018	-0.006	0.002	0.014	0.005
41	-0.014	-0.025	0.033	0.092	0.069
42	0.030	-0.011	0.026	0.037	0.001
43	-0.007	-0.014	-0.015	0.025	0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.018	1.000			
18	-0.003	0.278	1.000		
19	-0.101	-0.138	-0.129	1.000	
20	0.013	0.126	0.213	-0.118	1.000
21	-0.042	0.184	0.058	-0.039	-0.007
22	-0.015	0.023	0.226	-0.062	-0.005
23	-0.092	0.042	-0.012	0.198	0.025
24	0.001	0.091	0.184	-0.036	0.309
25	-0.014	0.025	0.034	-0.013	0.015
26	-0.035	-0.109	-0.043	0.051	-0.044
27	-0.049	-0.035	-0.154	0.039	-0.022
28	0.220	0.033	0.029	-0.129	0.022
29	-0.052	-0.063	-0.141	0.149	-0.202
30	-0.023	0.000	-0.012	0.028	-0.017
31	0.046	0.059	0.010	-0.032	0.003
32	0.032	0.005	0.013	-0.018	-0.060
33	0.033	0.047	-0.036	0.024	0.007
34	-0.003	-0.002	0.023	0.010	0.002
35	-0.006	-0.009	-0.029	-0.015	-0.048
36	0.018	0.028	0.007	-0.026	-0.014
37	0.001	0.012	0.003	0.073	-0.003
38	-0.002	0.011	-0.060	0.021	-0.057
39	0.031	0.064	-0.027	0.014	0.022
40	-0.051	-0.005	0.054	-0.035	-0.019
41	0.014	-0.018	0.043	-0.020	0.006
42	-0.007	-0.007	0.013	0.035	0.052
43	0.002	0.010	0.002	0.073	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25

21	1.000				
22	0.239	1.000			
23	-0.083	-0.178	1.000		
24	0.043	0.164	-0.091	1.000	
25	0.101	0.230	-0.064	0.251	1.000
26	-0.186	-0.055	0.023	-0.011	-0.022
27	-0.057	-0.178	0.057	-0.021	-0.021
28	-0.016	0.043	-0.174	0.055	-0.009
29	-0.054	-0.043	0.005	-0.164	-0.043
30	-0.088	-0.223	0.162	-0.154	-0.232
31	0.023	0.048	-0.064	0.057	0.049
32	0.007	-0.002	0.008	-0.021	0.030
33	-0.004	-0.024	-0.002	-0.002	0.057
34	-0.014	0.000	0.010	-0.014	0.043
35	0.032	-0.024	0.021	-0.020	-0.013
36	0.017	0.023	-0.054	0.021	0.020
37	0.023	-0.021	0.055	-0.008	-0.025
38	0.027	0.005	-0.028	0.002	0.019
39	0.035	0.016	0.018	0.012	-0.004
40	0.049	0.031	-0.028	-0.013	0.002
41	-0.005	0.049	0.053	0.028	0.047
42	-0.013	0.048	0.026	-0.003	0.052
43	0.024	-0.022	0.055	-0.010	-0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.268	1.000			
28	-0.126	-0.125	1.000		
29	0.048	0.154	-0.102	1.000	
30	0.078	0.198	-0.072	0.196	1.000
31	-0.155	-0.261	0.224	-0.187	-0.265
32	-0.022	0.019	-0.034	0.015	0.020
33	-0.038	-0.001	0.003	-0.035	-0.008
34	-0.001	-0.027	0.004	-0.025	-0.021
35	0.004	0.019	-0.012	0.033	-0.029
36	0.005	0.031	0.008	-0.027	0.032
37	0.062	0.030	-0.004	-0.010	-0.012
38	-0.027	0.050	-0.006	0.031	-0.025
39	0.004	0.010	0.006	-0.033	-0.027
40	0.007	0.002	-0.021	-0.009	0.007
41	0.008	-0.060	-0.028	-0.011	0.014

42	-0.006	-0.026	0.000	-0.043	-0.016
43	0.059	0.031	-0.004	-0.011	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.036	1.000			
33	0.008	-0.019	1.000		
34	0.016	-0.002	0.104	1.000	
35	-0.009	0.146	-0.034	-0.023	1.000
36	-0.006	-0.013	-0.015	-0.024	0.074
37	-0.054	-0.004	0.010	0.012	-0.036
38	0.028	0.077	0.003	-0.024	0.108
39	-0.017	-0.049	0.007	0.026	0.050
40	0.014	-0.033	-0.021	0.005	-0.016
41	-0.019	0.048	0.041	0.023	-0.036
42	-0.003	0.017	0.005	0.037	-0.010
43	-0.051	-0.005	0.009	0.008	-0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.105	1.000			
38	0.042	-0.016	1.000		
39	0.100	0.099	0.062	1.000	
40	-0.004	-0.014	0.013	0.003	1.000
41	0.007	0.010	-0.010	-0.008	0.125
42	-0.045	0.079	-0.014	-0.028	0.035
43	-0.108	0.998	-0.008	0.103	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.154	1.000	
43	0.011	0.078	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.007	7
200	1.008	34
300	1.012	9
400	1.003	4
500	1.003	36
600	1.004	38
700	1.001	37
800	1.000	39
900	1.001	26
1000	1.002	9

Worsening of psychological distress, bullying interaction

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122



186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage		PHY15	KES15	CHOICE15
	KESCAT16	PRAFAC			
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.950	0.950	0.950		
KES15	0.919	0.919	0.919	0.919	
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.912
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage		DUTIES15
	BULLY15	PRESS15	
BULLY15	0.913		
PRESS15	0.912	0.913	
DUTIES15	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16

Category 1	0.877	5135.000
Category 2	0.123	720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15	0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15	0.000	-0.400	-2.221	7.67%	-1.221	-0.221	-0.221
5345.000	1.097	-0.356	1.779	8.62%	0.779	0.779	
BULLY15	1.153	3.522	1.000	88.29%	1.000	1.000	1.000
5344.000	0.216	14.164	5.000	0.09%	1.000	1.000	
PRESS15	0.000	0.267	-1.445	19.70%	-0.445	-0.445	-0.445
5345.000	1.001	-0.357	2.555	2.75%	0.555	0.555	
DUTIES15	0.000	-1.296	-3.149	2.34%	-0.149	-0.149	-0.149
5347.000	0.828	1.939	0.851	39.74%	-0.149	0.851	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters	43
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## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.137	0.034	0.000	0.069	0.203	*
CHOICE15	-0.059	0.026	0.009	-0.110	-0.009	*
DUTIES15	-0.083	0.028	0.001	-0.138	-0.031	*
PRESS15	-0.032	0.026	0.106	-0.084	0.019	
KES15	1.618	0.087	0.000	1.449	1.793	*
KES15 WITH						
PHY15	0.054	0.003	0.000	0.048	0.061	*
CHOICE15	-0.037	0.005	0.000	-0.046	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.045	0.062	*
DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*
PHY15 WITH						
CHOICE15	-0.092	0.011	0.000	-0.112	-0.070	*
BULLY15	0.024	0.005	0.000	0.015	0.034	*
PRESS15	0.063	0.010	0.000	0.042	0.083	*
DUTIES15	-0.056	0.009	0.000	-0.074	-0.038	*
CHOICE15 WITH						
BULLY15	-0.051	0.007	0.000	-0.064	-0.038	*
PRESS15	-0.077	0.015	0.000	-0.105	-0.047	*
DUTIES15	0.158	0.014	0.000	0.133	0.186	*
BULLY15 WITH						
PRESS15	0.090	0.007	0.000	0.077	0.103	*
DUTIES15	-0.057	0.006	0.000	-0.069	-0.046	*
PRESS15 WITH						
DUTIES15	-0.156	0.013	0.000	-0.181	-0.131	*
Means						
PHY15	0.001	0.010	0.441	-0.019	0.021	
KES15	0.003	0.004	0.221	-0.005	0.011	
CHOICE15	-0.003	0.015	0.419	-0.032	0.025	
PRESS15	0.002	0.013	0.454	-0.026	0.027	
DUTIES15	-0.003	0.013	0.426	-0.028	0.022	

Variances						
PHY15	0.537	0.010	0.000	0.516	0.557	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.097	0.022	0.000	1.060	1.141	*
BULLY15	0.215	0.004	0.000	0.207	0.224	*
PRESS15	1.002	0.020	0.000	0.966	1.042	*
DUTIES15	0.829	0.016	0.000	0.799	0.860	*
Between Level						
S1 ON						
PRAFAC	-0.031	0.063	0.308	-0.152	0.094	
KESCAT16 ON						
PRAFAC	0.023	0.029	0.201	-0.030	0.079	
BULLY15	-0.900	0.555	0.047	-2.065	0.152	
PRAFAC WITH						
BULLY15	0.010	0.028	0.348	-0.046	0.067	
Means						
PRAFAC	-0.182	0.152	0.119	-0.485	0.112	
BULLY15	1.154	0.022	0.000	1.113	1.199	*
Intercepts						
S1	0.137	0.070	0.017	0.009	0.286	*
Thresholds						
KESCAT16\$1	0.334	0.638	0.313	-1.017	1.528	
Variances						
PRAFAC	1.361	0.269	0.000	0.964	2.001	*
BULLY15	0.024	0.005	0.000	0.017	0.038	*
Residual Variances						
KESCAT16	0.007	0.007	0.000	0.001	0.026	*
S1	0.035	0.056	0.000	0.001	0.192	*

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON						
BULLY15	0.056	0.024	0.008	0.012	0.104	*
KESCAT16 ON						
PHY15	0.086	0.021	0.000	0.044	0.128	*
CHOICE15	-0.054	0.023	0.008	-0.099	-0.009	*
DUTIES15	-0.066	0.021	0.002	-0.108	-0.024	*
PRESS15	-0.029	0.022	0.102	-0.073	0.015	
KES15	0.432	0.019	0.000	0.393	0.469	*
KES15 WITH						
PHY15	0.240	0.013	0.000	0.214	0.264	*
CHOICE15	-0.113	0.014	0.000	-0.139	-0.085	*
BULLY15	0.154	0.013	0.000	0.128	0.180	*
PRESS15	0.171	0.013	0.000	0.145	0.197	*
DUTIES15	-0.180	0.013	0.000	-0.205	-0.154	*
PHY15 WITH						
CHOICE15	-0.120	0.014	0.000	-0.146	-0.093	*
BULLY15	0.072	0.014	0.000	0.044	0.098	*
PRESS15	0.086	0.014	0.000	0.059	0.112	*
DUTIES15	-0.084	0.014	0.000	-0.111	-0.057	*
CHOICE15 WITH						
BULLY15	-0.104	0.014	0.000	-0.131	-0.078	*
PRESS15	-0.074	0.014	0.000	-0.100	-0.046	*
DUTIES15	0.166	0.014	0.000	0.140	0.193	*
BULLY15 WITH						
PRESS15	0.193	0.014	0.000	0.166	0.220	*
DUTIES15	-0.136	0.014	0.000	-0.162	-0.109	*
PRESS15 WITH						
DUTIES15	-0.171	0.013	0.000	-0.197	-0.144	*
Means						
PHY15	0.002	0.014	0.435	-0.024	0.029	
KES15	0.010	0.013	0.231	-0.016	0.037	
CHOICE15	-0.003	0.014	0.414	-0.030	0.024	

PRESS15	0.002	0.013	0.449	-0.025	0.027	
DUTIES15	-0.003	0.014	0.424	-0.032	0.024	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.191	0.380	0.308	-0.897	0.679	
KESCAT16 ON						
PRAFAC	0.152	0.201	0.201	-0.251	0.528	
BULLY15	-0.843	0.315	0.047	-1.000	0.222	
PRAFAC WITH						
BULLY15	0.053	0.143	0.348	-0.239	0.327	
Means						
PRAFAC	-0.158	0.129	0.119	-0.416	0.094	
BULLY15	7.396	0.745	0.000	6.005	8.937	*
Intercepts						
S1	0.708	0.592	0.017	0.033	2.329	*
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.241	0.272	0.000	0.012	0.934	*
S1	0.914	0.213	0.000	0.191	1.000	*

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Posterior One-Tailed 95% C.I.

Variable	Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.255	0.018	0.000	0.221	0.292

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.759	0.272	0.000	0.066	0.988

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.086	0.213	0.000	0.000	0.809

# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16  
 \_\_\_\_\_  
 0

NU

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____
0	0	0	0	0

NU

PRESS15	DUTIES15
_____	_____
0	0

LAMBDA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____

KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

# ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	0



ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
4	5

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0	6	7	8	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
KESCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU	KESCAT16
	<u>43</u>

NU	KESCAT16	PRAFAC	BULLY15
	<u>0</u>	<u>0</u>	<u>0</u>

LAMBDA	S1	KESCAT16	PRAFAC	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
BULLY15	0	0	0	0

THETA	KESCAT16	PRAFAC	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>
PRAFAC	0	0	
BULLY15	0	0	0

ALPHA	S1	KESCAT16	PRAFAC	BULLY15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

	BETA			
	S1	KESCAT16	PRAFAC	BULLY15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
BULLY15	0	0	0	0

	PSI			
	S1	KESCAT16	PRAFAC	BULLY15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	39		
PRAFAC	0	0	40	
BULLY15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<u>0.000</u>

NU				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000

KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000			
PHY15	0.000	0.268		
KES15	0.000	0.000	0.048	
CHOICE15	0.000	0.000	0.000	0.549
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.108
DUTIES15	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15

PRESS15	<u>0.501</u>	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
KESCAT16	
	<u>1.091</u>

NU			
KESCAT16	PRAFAC	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

LAMBDA				
S1	KESCAT16	PRAFAC	BULLY15	
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	1.000

THETA			
KESCAT16	PRAFAC	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PRAFAC	0.000		
BULLY15	0.000	0.000	

ALPHA			
S1	KESCAT16	PRAFAC	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.006</u>	<u>1.153</u>

BETA			
S1	KESCAT16	PRAFAC	BULLY15

S1	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000

PSI				
	S1	KESCAT16	PRAFAC	BULLY15
S1	1.000			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.506	
BULLY15	0.000	0.000	0.000	0.108

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity

Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.994124D-04				
2	0.101209D-04	0.165201D-04			
3	-0.176587D-04	-0.501022D-05	0.213048D-03		
4	0.101299D-04	0.103228D-04	-0.266666D-04	0.180576D-03	
5	-0.126943D-04	-0.110654D-04	0.303954D-04	-0.354107D-04	0.165797D-03
6	-0.792586D-05	-0.408550D-05	-0.371366D-05	-0.202537D-04	0.196811D-05
7	0.626605D-05	0.459606D-05	0.340974D-04	0.404758D-05	0.214869D-04
8	-0.613200D-05	-0.366903D-05	0.170263D-04	-0.132157D-04	0.519267D-05
9	-0.469133D-05	-0.294362D-05	-0.185399D-05	0.528046D-05	0.105170D-06
10	-0.129254D-04	-0.387157D-05	-0.157306D-05	-0.174775D-05	0.235956D-04
11	0.506719D-06	-0.218616D-06	0.284571D-05	0.411673D-05	-0.353963D-05
12	0.657804D-06	0.299980D-08	0.158311D-05	-0.405630D-06	0.584909D-06
13	-0.355381D-06	0.156710D-06	0.127590D-05	-0.742315D-06	0.248617D-06
14	0.224737D-05	0.186845D-05	0.172610D-05	0.547130D-05	-0.121744D-07
15	0.978542D-06	0.678436D-06	-0.236333D-05	0.361939D-05	-0.191862D-05
16	0.332545D-05	-0.349976D-05	0.856925D-05	0.461986D-05	0.966325D-05
17	0.147694D-05	0.131771D-06	0.947488D-06	0.214166D-05	0.557714D-06
18	0.409831D-06	0.311053D-06	0.149315D-05	0.194411D-06	-0.598474D-06



19	0.651177D-06	0.182734D-05	-0.334252D-05	-0.270424D-05	-0.194860D-05
20	-0.111535D-05	0.435454D-06	0.523493D-06	0.119386D-05	-0.127489D-06
21	-0.946838D-07	0.407789D-06	0.162925D-06	0.201189D-05	0.648974D-05
22	0.614941D-06	0.298449D-06	-0.164525D-05	0.183387D-05	0.102110D-05
23	0.457208D-05	0.422932D-05	0.397384D-05	0.525956D-06	-0.100441D-04
24	-0.185164D-06	0.323023D-07	-0.357293D-05	-0.119423D-05	0.323964D-06
25	-0.113981D-04	0.261507D-05	-0.131031D-04	-0.301405D-05	-0.331117D-05
26	0.211481D-05	-0.392689D-06	-0.624664D-05	0.382346D-06	0.779753D-06
27	-0.118545D-05	-0.904193D-06	-0.286631D-05	-0.810454D-06	0.249858D-05
28	-0.600125D-05	-0.631423D-06	-0.320854D-06	0.861869D-05	-0.315781D-06
29	-0.950177D-06	-0.640760D-06	-0.223756D-05	-0.146392D-05	0.173858D-05
30	0.200422D-05	0.105011D-05	-0.324643D-05	-0.116305D-05	0.144864D-05
31	0.266702D-05	0.198458D-05	0.304937D-05	0.704222D-05	0.990521D-06
32	0.238058D-05	0.262140D-05	0.640613D-04	-0.173323D-04	0.192457D-04
33	-0.218205D-04	0.157429D-04	-0.144239D-04	0.752309D-04	-0.288809D-04
34	0.285503D-05	0.372342D-05	-0.135160D-04	0.174810D-04	-0.244474D-04
35	0.801292D-06	-0.337674D-05	0.963711D-05	-0.101438D-04	0.144983D-04
36	0.154184D-05	-0.157149D-05	0.792077D-05	0.541539D-05	-0.255985D-05
37	-0.166703D-03	0.716298D-05	-0.222921D-03	0.827012D-04	-0.129828D-03
38	0.157933D-05	-0.370029D-05	0.321815D-04	-0.160077D-04	-0.250001D-05
39	-0.190182D-06	-0.361631D-06	0.287813D-05	0.498146D-06	-0.358841D-06
40	-0.337901D-04	-0.225247D-04	-0.263578D-04	0.926683D-05	-0.741580D-04
41	0.948418D-05	-0.150928D-05	0.652889D-05	-0.564025D-05	-0.644870D-06
42	0.903873D-06	0.122674D-05	0.326309D-05	-0.210843D-05	-0.114280D-05
43	-0.194537D-03	0.570723D-05	-0.244143D-03	0.655311D-04	-0.148768D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.112255D-02				
7	-0.632267D-03	0.759780D-02			
8	0.102953D-03	-0.140750D-05	0.673456D-03		
9	-0.553963D-04	-0.251260D-03	0.146227D-04	0.688629D-03	
10	-0.399667D-04	0.208753D-03	-0.811444D-04	0.938542D-04	0.761426D-03
11	0.247127D-05	0.243152D-04	0.114579D-04	0.609548D-05	-0.114153D-04
12	-0.655072D-06	0.105194D-04	0.982470D-06	0.201920D-05	-0.708242D-06
13	0.222438D-06	0.764004D-06	0.288406D-05	0.166258D-05	-0.267535D-06
14	-0.555337D-05	0.211466D-04	0.579725D-05	-0.659177D-05	0.124816D-04
15	-0.166991D-05	0.819059D-05	0.663618D-06	-0.196811D-05	0.340153D-05
16	-0.326907D-04	-0.250657D-04	-0.686719D-05	0.125429D-04	-0.170798D-04
17	-0.665359D-05	0.976007D-05	-0.551093D-05	0.295661D-05	-0.979713D-06
18	0.678893D-06	-0.186305D-05	0.122495D-05	0.311638D-06	0.108965D-05
19	0.489233D-05	-0.166952D-04	0.621652D-06	0.416989D-06	0.246260D-05

20	-0.268433D-05	0.144403D-04	-0.209600D-05	0.259685D-05	-0.390716D-05
21	-0.909147D-05	0.442882D-04	0.664104D-05	0.114881D-04	0.725039D-05
22	-0.143126D-07	-0.288664D-05	0.419804D-05	0.759732D-05	-0.201868D-05
23	0.754490D-05	0.226392D-04	0.654326D-05	0.417500D-07	0.235107D-04
24	-0.420154D-05	0.157022D-04	0.539635D-06	-0.200213D-05	-0.105690D-05
25	-0.841079D-05	-0.642367D-05	-0.788027D-05	-0.108650D-04	0.849200D-05
26	0.448218D-05	-0.967287D-05	-0.140449D-04	0.158299D-05	0.549919D-05
27	-0.104465D-05	0.174356D-04	-0.326402D-05	-0.133551D-06	0.896700D-05
28	-0.688649D-06	0.434035D-04	-0.822279D-05	-0.715340D-05	0.808540D-05
29	-0.331056D-05	-0.130882D-04	0.139850D-05	0.535218D-05	0.629638D-05
30	-0.285711D-05	0.134031D-04	0.770389D-05	-0.126199D-04	0.130635D-04
31	-0.101090D-04	0.520524D-04	-0.438139D-05	0.231413D-05	-0.849944D-05
32	-0.170377D-03	-0.556277D-04	0.821819D-04	-0.254814D-03	0.578595D-04
33	-0.171481D-03	-0.204120D-03	-0.114305D-03	-0.326400D-04	-0.133263D-03
34	0.187745D-04	0.236896D-04	0.336553D-04	-0.700046D-05	-0.915088D-05
35	0.132304D-04	-0.116068D-03	-0.405120D-04	-0.604500D-04	-0.161692D-04
36	0.622030D-04	0.522298D-04	-0.104487D-04	0.172405D-04	-0.175291D-05
37	-0.267964D-03	-0.256049D-02	0.482602D-03	0.123799D-04	-0.182687D-03
38	-0.297451D-04	0.247209D-03	-0.625494D-04	-0.574163D-05	-0.601171D-04
39	-0.738549D-06	0.261866D-04	0.788384D-05	0.802873D-05	-0.330640D-05
40	-0.289052D-04	-0.199118D-04	-0.127786D-03	-0.470755D-04	0.242587D-03
41	-0.938159D-05	-0.608034D-04	0.352375D-05	-0.676881D-05	0.418604D-04
42	0.365309D-05	0.151124D-04	0.650568D-05	-0.454096D-05	0.857490D-06
43	-0.260641D-03	-0.181502D-02	0.470918D-03	-0.886243D-05	-0.237590D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.105267D-03				
12	0.105694D-04	0.104175D-04			
13	0.166391D-05	0.186823D-05	0.328044D-05		
14	-0.199906D-04	-0.617928D-05	-0.159859D-05	0.112542D-03	
15	-0.172698D-05	-0.254003D-05	-0.138250D-05	0.118646D-04	0.203392D-04
16	0.671568D-05	0.217583D-05	-0.120037D-06	-0.323230D-04	-0.117945D-04
17	0.387017D-05	0.211286D-05	0.335985D-06	-0.581101D-05	0.653022D-07
18	0.630414D-06	0.643380D-06	0.955224D-06	-0.962036D-06	-0.101849D-05
19	-0.285570D-05	-0.191877D-05	-0.945103D-06	0.464321D-05	0.550498D-05
20	0.268543D-05	0.345683D-06	0.316797D-06	-0.215558D-06	0.209369D-06
21	0.798479D-05	0.542108D-05	0.676642D-06	-0.109921D-04	-0.582084D-06
22	0.461643D-06	0.822248D-06	0.185230D-05	-0.807816D-06	-0.177163D-05
23	0.513023D-06	-0.129599D-05	-0.734366D-06	0.161991D-04	0.116295D-04
24	-0.793430D-07	0.103836D-06	0.289947D-06	0.357559D-06	-0.231539D-06
25	0.633882D-05	0.151743D-05	0.125595D-05	-0.589434D-05	-0.105639D-05

26	-0.111948D-04	-0.572571D-05	-0.136438D-05	0.200517D-04	0.615051D-06
27	-0.242046D-05	-0.173125D-05	-0.149007D-05	0.305520D-05	0.252451D-05
28	0.201062D-05	0.722617D-06	0.711159D-06	-0.115902D-04	-0.110707D-04
29	-0.843697D-06	-0.828543D-06	-0.508216D-06	-0.155179D-05	0.538567D-07
30	-0.394597D-05	-0.153983D-05	-0.346639D-06	0.339932D-05	0.161147D-05
31	0.483046D-05	0.784581D-07	0.220536D-06	-0.626450D-05	-0.125922D-05
32	0.964222D-05	0.798902D-05	0.134992D-05	-0.266494D-04	-0.129814D-05
33	0.644986D-05	-0.241502D-05	-0.585825D-05	-0.735595D-04	0.170231D-04
34	-0.187883D-05	0.616289D-06	-0.254771D-06	0.104168D-04	0.176915D-05
35	0.377705D-05	0.249331D-05	0.240640D-05	-0.384044D-04	-0.121911D-05
36	0.683754D-05	-0.213317D-05	0.561121D-07	-0.168902D-05	-0.523567D-05
37	-0.151782D-04	-0.536715D-04	0.439066D-05	-0.986240D-05	0.825244D-04
38	-0.691606D-05	-0.569180D-05	-0.5606727D-05	-0.966543D-05	0.565467D-05
39	0.118426D-05	0.435346D-06	-0.310803D-06	-0.131642D-05	-0.533499D-06
40	0.655243D-04	-0.337852D-05	0.190326D-05	0.165934D-04	0.330148D-06
41	-0.583710D-05	-0.235204D-05	0.997523D-06	0.190252D-04	0.610826D-05
42	0.691618D-06	-0.337678D-06	0.291923D-07	0.213258D-05	0.201819D-06
43	-0.158938D-04	-0.610089D-04	0.337052D-05	-0.868722D-05	0.938550D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.463961D-03				
17	0.173039D-05	0.222517D-04			
18	-0.229714D-06	0.268029D-05	0.404499D-05		
19	-0.145442D-04	-0.454173D-05	-0.141659D-05	0.464421D-04	
20	0.934266D-06	0.250871D-05	0.184670D-05	-0.380065D-05	0.184527D-04
21	-0.961308D-05	0.883809D-05	0.114792D-05	-0.275866D-05	-0.155717D-06
22	-0.782046D-06	0.527108D-06	0.188813D-05	-0.204033D-05	-0.914587D-08
23	-0.342200D-04	0.247094D-05	-0.420729D-06	0.187141D-04	0.153185D-05
24	-0.224435D-06	0.300611D-05	0.247617D-05	-0.247610D-05	0.880187D-05
25	-0.644211D-05	0.263149D-05	0.136003D-05	-0.215610D-05	0.155662D-05
26	-0.768673D-05	-0.456885D-05	-0.721971D-06	0.373845D-05	-0.187820D-05
27	-0.407881D-05	-0.523059D-06	-0.116880D-05	0.104794D-05	-0.414998D-06
28	0.640354D-04	0.220113D-05	0.575214D-06	-0.110968D-04	0.129952D-05
29	-0.639888D-05	-0.186460D-05	-0.160755D-05	0.622092D-05	-0.512473D-05
30	-0.583062D-05	0.262154D-06	-0.222603D-06	0.219046D-05	-0.950313D-06
31	0.161992D-04	0.411460D-05	0.177888D-06	-0.324594D-05	-0.449201D-07
32	0.761524D-04	0.107356D-04	0.621276D-05	-0.138638D-04	-0.879210D-05
33	0.119750D-03	0.346227D-04	-0.102202D-04	0.253913D-04	0.534668D-06
34	0.740017D-06	0.661672D-06	0.156843D-05	-0.112169D-05	0.147539D-05
35	-0.180757D-04	-0.124274D-05	-0.171443D-05	-0.533551D-05	-0.134339D-04
36	0.824500D-05	0.314670D-05	0.376030D-06	-0.290740D-05	-0.260748D-05

37	-0.334694D-03	-0.572208D-04	0.963420D-06	0.239978D-03	0.139507D-04
38	-0.252906D-04	-0.139998D-05	-0.916810D-05	-0.546396D-05	-0.115655D-04
39	0.570831D-05	0.143149D-05	-0.333281D-06	0.860727D-06	0.265278D-06
40	-0.303182D-03	0.374318D-05	0.296603D-04	-0.741760D-04	-0.162849D-04
41	0.190402D-04	-0.696676D-06	0.274727D-05	-0.582475D-05	0.419829D-06
42	0.121196D-05	-0.764311D-07	0.138181D-06	0.987756D-06	0.657063D-06
43	-0.375725D-03	-0.684399D-04	-0.676673D-06	0.275683D-03	0.168780D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.106390D-03				
22	0.103150D-04	0.173758D-04			
23	-0.134115D-04	-0.108501D-04	0.213364D-03		
24	0.274598D-05	0.436920D-05	-0.895142D-05	0.430713D-04	
25	0.206480D-04	0.189800D-04	-0.231807D-04	0.324946D-04	0.390406D-03
26	-0.177995D-04	-0.215858D-05	0.301275D-05	-0.577226D-06	-0.400008D-05
27	-0.231378D-05	-0.285846D-05	0.345997D-05	-0.539387D-06	-0.162674D-05
28	-0.181215D-05	0.254710D-05	-0.340627D-04	0.477547D-05	-0.259327D-05
29	-0.345358D-05	-0.106720D-05	0.792862D-06	-0.650535D-05	-0.466413D-05
30	-0.116519D-04	-0.118814D-04	0.304425D-04	-0.117105D-04	-0.582336D-04
31	0.390903D-05	0.318229D-05	-0.135883D-04	0.445685D-05	0.151668D-04
32	0.179096D-04	-0.587622D-05	-0.111178D-04	0.291560D-05	0.642213D-04
33	-0.652148D-05	-0.146816D-04	0.102139D-05	-0.124868D-04	0.171875D-03
34	-0.400338D-05	0.166204D-06	-0.853292D-05	0.249803D-05	0.226794D-04
35	0.650884D-05	-0.499385D-05	0.223768D-04	-0.677453D-05	0.465148D-05
36	0.274549D-05	0.315286D-05	-0.163691D-04	0.153739D-05	0.123767D-04
37	0.735937D-04	0.140448D-04	0.668395D-04	0.113451D-03	0.246009D-03
38	-0.526277D-07	0.294081D-05	-0.191420D-04	0.640354D-06	-0.574671D-05
39	0.275398D-05	0.799534D-06	0.326177D-06	0.770757D-06	0.501250D-06
40	0.147981D-03	0.362100D-04	-0.115692D-03	-0.272057D-04	0.123449D-04
41	-0.188917D-05	0.576500D-05	0.159129D-04	0.732160D-05	0.236616D-04
42	-0.262247D-06	0.749704D-06	-0.773506D-08	0.149440D-07	0.564000D-05
43	0.839243D-04	0.135328D-04	0.761573D-04	0.124551D-03	0.279490D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.857843D-04				
27	0.957830D-05	0.148180D-04			
28	-0.163732D-04	-0.627135D-05	0.184058D-03		
29	0.257657D-05	0.339923D-05	-0.801356D-05	0.342249D-04	

30	0.914719D-05	0.975172D-05	-0.130441D-04	0.136576D-04	0.162552D-03
31	-0.227344D-04	-0.159146D-04	0.492919D-04	-0.168517D-04	-0.536204D-04
32	-0.358855D-05	0.111084D-04	-0.160120D-04	-0.486821D-06	0.199894D-04
33	-0.545037D-04	-0.407130D-06	0.127811D-04	-0.295809D-04	-0.159778D-04
34	0.580242D-06	-0.157440D-05	0.365781D-05	-0.346656D-05	-0.426533D-05
35	0.782609D-05	-0.162838D-05	-0.214446D-04	0.116484D-04	0.126064D-05
36	0.167122D-05	0.139634D-05	0.891532D-05	-0.838493D-05	0.103668D-04
37	0.213699D-03	-0.454433D-05	-0.297892D-03	0.727076D-04	-0.895644D-04
38	-0.175881D-04	0.382910D-05	0.238981D-05	0.660001D-05	-0.131393D-04
39	0.146735D-06	-0.305284D-06	-0.130249D-06	-0.118042D-05	-0.233168D-05
40	0.540591D-05	0.269395D-05	-0.704745D-04	-0.147952D-04	0.156982D-04
41	0.173008D-06	-0.559419D-05	0.112080D-05	-0.336851D-05	0.337186D-05
42	0.897967D-06	-0.596970D-06	0.394892D-06	-0.605893D-06	-0.851903D-06
43	0.231989D-03	-0.287316D-05	-0.352536D-03	0.844377D-04	-0.117399D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.250713D-03				
32	-0.348385D-04	0.491138D-02			
33	0.205326D-04	-0.105366D-03	0.230809D-01		
34	0.195714D-05	-0.379067D-05	0.230767D-03	0.499157D-03	
35	-0.166064D-04	0.444048D-03	-0.396947D-03	-0.552731D-04	0.401716D-02
36	-0.109125D-05	-0.123602D-04	-0.180304D-04	-0.335412D-04	-0.116835D-03
37	-0.140365D-03	0.196724D-03	-0.263530D-02	0.811057D-04	0.773129D-03
38	0.182578D-04	0.291505D-03	-0.156106D-03	-0.237588D-04	-0.266604D-03
39	-0.163134D-05	-0.755867D-05	0.952646D-05	0.208107D-05	0.824023D-05
40	0.646109D-04	-0.581414D-03	-0.818057D-03	0.503696D-04	-0.271649D-03
41	-0.405354D-05	0.755372D-04	0.984758D-04	0.303108D-05	-0.757704D-04
42	0.812302D-06	0.407409D-05	0.255722D-05	0.803047D-05	-0.589518D-05
43	-0.144077D-03	0.343222D-03	-0.309734D-02	0.330187D-04	0.936463D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.821599D-03				
37	-0.273029D-02	0.307677D+00			
38	0.423210D-04	-0.824060D-03	0.308532D-02		
39	0.177384D-04	0.655965D-03	0.194256D-04	0.483383D-04	
40	0.140635D-03	-0.252914D-02	0.515294D-03	-0.167068D-04	0.723834D-01
41	0.540112D-04	0.565203D-03	0.215799D-05	-0.346669D-05	0.623099D-03
42	-0.394455D-05	0.203223D-03	-0.171254D-05	0.146036D-06	0.302830D-04

43 -0.314640D-02 0.353506D+00 -0.828839D-03 0.788207D-03 -0.309049D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.779732D-03		
42	0.105495D-04	0.265948D-04	
43	0.637024D-03	0.230323D-03	0.407271D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.250	1.000			
3	-0.121	-0.084	1.000		
4	0.076	0.189	-0.136	1.000	
5	-0.099	-0.211	0.162	-0.205	1.000
6	-0.024	-0.030	-0.008	-0.045	0.005
7	0.007	0.013	0.027	0.003	0.019
8	-0.024	-0.035	0.045	-0.038	0.016
9	-0.018	-0.028	-0.005	0.015	0.000
10	-0.047	-0.035	-0.004	-0.005	0.066
11	0.005	-0.005	0.019	0.030	-0.027
12	0.020	0.000	0.034	-0.009	0.014
13	-0.020	0.021	0.048	-0.030	0.011
14	0.021	0.043	0.011	0.038	0.000
15	0.022	0.037	-0.036	0.060	-0.033
16	0.015	-0.040	0.027	0.016	0.035
17	0.031	0.007	0.014	0.034	0.009
18	0.020	0.038	0.051	0.007	-0.023
19	0.010	0.066	-0.034	-0.030	-0.022
20	-0.026	0.025	0.008	0.021	-0.002
21	-0.001	0.010	0.001	0.015	0.049
22	0.015	0.018	-0.027	0.033	0.019
23	0.031	0.071	0.019	0.003	-0.053
24	-0.003	0.001	-0.037	-0.014	0.004
25	-0.058	0.033	-0.045	-0.011	-0.013
26	0.023	-0.010	-0.046	0.003	0.007
27	-0.031	-0.058	-0.051	-0.016	0.050
28	-0.044	-0.011	-0.002	0.047	-0.002
29	-0.016	-0.027	-0.026	-0.019	0.023
30	0.016	0.020	-0.017	-0.007	0.009

31	0.017	0.031	0.013	0.033	0.005
32	0.003	0.009	0.063	-0.018	0.021
33	-0.014	0.025	-0.007	0.037	-0.015
34	0.013	0.041	-0.041	0.058	-0.085
35	0.001	-0.013	0.010	-0.012	0.018
36	0.005	-0.013	0.019	0.014	-0.007
37	-0.030	0.003	-0.028	0.011	-0.018
38	0.003	-0.016	0.040	-0.021	-0.003
39	-0.003	-0.013	0.028	0.005	-0.004
40	-0.013	-0.021	-0.007	0.003	-0.021
41	0.034	-0.013	0.016	-0.015	-0.002
42	0.018	0.059	0.043	-0.030	-0.017
43	-0.031	0.002	-0.026	0.008	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.216	1.000			
8	0.118	-0.001	1.000		
9	-0.063	-0.110	0.021	1.000	
10	-0.043	0.087	-0.113	0.130	1.000
11	0.007	0.027	0.043	0.023	-0.040
12	-0.006	0.037	0.012	0.024	-0.008
13	0.004	0.005	0.061	0.035	-0.005
14	-0.016	0.023	0.021	-0.024	0.043
15	-0.011	0.021	0.006	-0.017	0.027
16	-0.045	-0.013	-0.012	0.022	-0.029
17	-0.042	0.024	-0.045	0.024	-0.008
18	0.010	-0.011	0.023	0.006	0.020
19	0.021	-0.028	0.004	0.002	0.013
20	-0.019	0.039	-0.019	0.023	-0.033
21	-0.026	0.049	0.025	0.042	0.025
22	0.000	-0.008	0.039	0.069	-0.018
23	0.015	0.018	0.017	0.000	0.058
24	-0.019	0.027	0.003	-0.012	-0.006
25	-0.013	-0.004	-0.015	-0.021	0.016
26	0.014	-0.012	-0.058	0.007	0.022
27	-0.008	0.052	-0.033	-0.001	0.084
28	-0.002	0.037	-0.023	-0.020	0.022
29	-0.017	-0.026	0.009	0.035	0.039
30	-0.007	0.012	0.023	-0.038	0.037
31	-0.019	0.038	-0.011	0.006	-0.019

32	-0.073	-0.009	0.045	-0.139	0.030
33	-0.034	-0.015	-0.029	-0.008	-0.032
34	0.025	0.012	0.058	-0.012	-0.015
35	0.006	-0.021	-0.025	-0.036	-0.009
36	0.065	0.021	-0.014	0.023	-0.002
37	-0.014	-0.053	0.034	0.001	-0.012
38	-0.016	0.051	-0.043	-0.004	-0.039
39	-0.003	0.043	0.044	0.044	-0.017
40	-0.003	-0.001	-0.018	-0.007	0.033
41	-0.010	-0.025	0.005	-0.009	0.054
42	0.021	0.034	0.049	-0.034	0.006
43	-0.012	-0.033	0.028	-0.001	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.319	1.000			
13	0.090	0.320	1.000		
14	-0.184	-0.180	-0.083	1.000	
15	-0.037	-0.174	-0.169	0.248	1.000
16	0.030	0.031	-0.003	-0.141	-0.121
17	0.080	0.139	0.039	-0.116	0.003
18	0.031	0.099	0.262	-0.045	-0.112
19	-0.041	-0.087	-0.077	0.064	0.179
20	0.061	0.025	0.041	-0.005	0.011
21	0.075	0.163	0.036	-0.100	-0.013
22	0.011	0.061	0.245	-0.018	-0.094
23	0.003	-0.027	-0.028	0.105	0.177
24	-0.001	0.005	0.024	0.005	-0.008
25	0.031	0.024	0.035	-0.028	-0.012
26	-0.118	-0.192	-0.081	0.204	0.015
27	-0.061	-0.139	-0.214	0.075	0.145
28	0.014	0.017	0.029	-0.081	-0.181
29	-0.014	-0.044	-0.048	-0.025	0.002
30	-0.030	-0.037	-0.015	0.025	0.028
31	0.030	0.002	0.008	-0.037	-0.018
32	0.013	0.035	0.011	-0.036	-0.004
33	0.004	-0.005	-0.021	-0.046	0.025
34	-0.008	0.009	-0.006	0.044	0.018
35	0.006	0.012	0.021	-0.057	-0.004
36	0.023	-0.023	0.001	-0.006	-0.041
37	-0.003	-0.030	0.004	-0.002	0.033



38	-0.012	-0.032	-0.060	-0.016	0.023
39	0.017	0.019	-0.025	-0.018	-0.017
40	0.024	-0.004	0.004	0.006	0.000
41	-0.020	-0.026	0.020	0.064	0.049
42	0.013	-0.020	0.003	0.039	0.009
43	-0.002	-0.030	0.003	-0.001	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.017	1.000			
18	-0.005	0.283	1.000		
19	-0.099	-0.141	-0.103	1.000	
20	0.010	0.124	0.214	-0.130	1.000
21	-0.043	0.182	0.055	-0.039	-0.004
22	-0.009	0.027	0.225	-0.072	-0.001
23	-0.109	0.036	-0.014	0.188	0.024
24	-0.002	0.097	0.188	-0.055	0.312
25	-0.015	0.028	0.034	-0.016	0.018
26	-0.039	-0.105	-0.039	0.059	-0.047
27	-0.049	-0.029	-0.151	0.040	-0.025
28	0.219	0.034	0.021	-0.120	0.022
29	-0.051	-0.068	-0.137	0.156	-0.204
30	-0.021	0.004	-0.009	0.025	-0.017
31	0.047	0.055	0.006	-0.030	-0.001
32	0.050	0.032	0.044	-0.029	-0.029
33	0.037	0.048	-0.033	0.025	0.001
34	0.002	0.006	0.035	-0.007	0.015
35	-0.013	-0.004	-0.013	-0.012	-0.049
36	0.013	0.023	0.007	-0.015	-0.021
37	-0.028	-0.022	0.001	0.063	0.006
38	-0.021	-0.005	-0.082	-0.014	-0.048
39	0.038	0.044	-0.024	0.018	0.009
40	-0.052	0.003	0.055	-0.040	-0.014
41	0.032	-0.005	0.049	-0.031	0.004
42	0.011	-0.003	0.013	0.028	0.030
43	-0.027	-0.023	-0.001	0.063	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25

21	1.000				
22	0.240	1.000			
23	-0.089	-0.178	1.000		
24	0.041	0.160	-0.093	1.000	
25	0.101	0.230	-0.080	0.251	1.000
26	-0.186	-0.056	0.022	-0.009	-0.022
27	-0.058	-0.178	0.062	-0.021	-0.021
28	-0.013	0.045	-0.172	0.054	-0.010
29	-0.057	-0.044	0.009	-0.169	-0.040
30	-0.089	-0.224	0.163	-0.140	-0.231
31	0.024	0.048	-0.059	0.043	0.048
32	0.025	-0.020	-0.011	0.006	0.046
33	-0.004	-0.023	0.000	-0.013	0.057
34	-0.017	0.002	-0.026	0.017	0.051
35	0.010	-0.019	0.024	-0.016	0.004
36	0.009	0.026	-0.039	0.008	0.022
37	0.013	0.006	0.008	0.031	0.022
38	0.000	0.013	-0.024	0.002	-0.005
39	0.038	0.028	0.003	0.017	0.004
40	0.053	0.032	-0.029	-0.015	0.002
41	-0.007	0.050	0.039	0.040	0.043
42	-0.005	0.035	0.000	0.000	0.055
43	0.013	0.005	0.008	0.030	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.269	1.000			
28	-0.130	-0.120	1.000		
29	0.048	0.151	-0.101	1.000	
30	0.077	0.199	-0.075	0.183	1.000
31	-0.155	-0.261	0.229	-0.182	-0.266
32	-0.006	0.041	-0.017	-0.001	0.022
33	-0.039	-0.001	0.006	-0.033	-0.008
34	0.003	-0.018	0.012	-0.027	-0.015
35	0.013	-0.007	-0.025	0.031	0.002
36	0.006	0.013	0.023	-0.050	0.028
37	0.042	-0.002	-0.040	0.022	-0.013
38	-0.034	0.018	0.003	0.020	-0.019
39	0.002	-0.011	-0.001	-0.029	-0.026
40	0.002	0.003	-0.019	-0.009	0.005
41	0.001	-0.052	0.003	-0.021	0.009

42	0.019	-0.030	0.006	-0.020	-0.013
43	0.039	-0.001	-0.041	0.023	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.031	1.000			
33	0.009	-0.010	1.000		
34	0.006	-0.002	0.068	1.000	
35	-0.017	0.100	-0.041	-0.039	1.000
36	-0.002	-0.006	-0.004	-0.052	-0.064
37	-0.016	0.005	-0.031	0.007	0.022
38	0.021	0.075	-0.018	-0.019	-0.076
39	-0.015	-0.016	0.009	0.013	0.019
40	0.015	-0.031	-0.020	0.008	-0.016
41	-0.009	0.039	0.023	0.005	-0.043
42	0.010	0.011	0.003	0.070	-0.018
43	-0.014	0.008	-0.032	0.002	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.172	1.000			
38	0.027	-0.027	1.000		
39	0.089	0.170	0.050	1.000	
40	0.018	-0.017	0.034	-0.009	1.000
41	0.067	0.036	0.001	-0.018	0.083
42	-0.027	0.071	-0.006	0.004	0.022
43	-0.172	0.999	-0.023	0.178	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.073	1.000	
43	0.036	0.070	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.051	38
200	1.006	32
300	1.007	9
400	1.002	4
500	1.004	36
600	1.004	37
700	1.002	8
800	1.001	38
900	1.002	38
1000	1.002	9

Worsening of psychological distress, time pressure interaction

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122

186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

Covariance Coverage					
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.950	0.950	0.950		
KES15	0.919	0.919	0.919	0.919	
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.912
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

Covariance Coverage			
	BULLY15	PRESS15	DUTIES15
BULLY15	0.913		
PRESS15	0.912	0.913	
DUTIES15	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16

Category 1	0.877	5135.000
Category 2	0.123	720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15	0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15	0.000	-0.400	-2.221	7.67%	-1.221	-0.221	-0.221
5345.000	1.097	-0.356	1.779	8.62%	0.779	0.779	
BULLY15	0.000	3.522	-0.153	88.29%	-0.153	-0.153	-0.153
5344.000	0.216	14.164	3.847	0.09%	-0.153	-0.153	
PRESS15	2.445	0.267	1.000	19.70%	2.000	2.000	2.000
5345.000	1.001	-0.357	5.000	2.75%	3.000	3.000	
DUTIES15	0.000	-1.296	-3.149	2.34%	-0.149	-0.149	-0.149
5347.000	0.828	1.939	0.851	39.74%	-0.149	0.851	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters	43
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## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.137	0.033	0.000	0.070	0.203	*
CHOICE15	-0.057	0.026	0.011	-0.108	-0.006	*
DUTIES15	-0.081	0.027	0.001	-0.134	-0.029	*
BULLY15	0.113	0.049	0.013	0.021	0.210	*
KES15	1.615	0.087	0.000	1.447	1.791	*
KES15 WITH						
PHY15	0.054	0.003	0.000	0.048	0.061	*
CHOICE15	-0.037	0.005	0.000	-0.046	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.045	0.061	*
DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*
PHY15 WITH						
CHOICE15	-0.092	0.011	0.000	-0.112	-0.070	*
BULLY15	0.025	0.005	0.000	0.015	0.034	*
PRESS15	0.060	0.010	0.000	0.039	0.080	*
DUTIES15	-0.056	0.009	0.000	-0.074	-0.038	*
CHOICE15 WITH						
BULLY15	-0.052	0.007	0.000	-0.065	-0.039	*
PRESS15	-0.065	0.015	0.000	-0.093	-0.037	*
DUTIES15	0.158	0.014	0.000	0.133	0.186	*
BULLY15 WITH						
PRESS15	0.087	0.006	0.000	0.075	0.099	*
DUTIES15	-0.058	0.006	0.000	-0.070	-0.047	*
PRESS15 WITH						
DUTIES15	-0.149	0.013	0.000	-0.173	-0.124	*
Means						
PHY15	0.002	0.010	0.441	-0.018	0.021	
KES15	0.003	0.004	0.221	-0.005	0.012	
CHOICE15	-0.003	0.015	0.413	-0.032	0.025	
BULLY15	0.001	0.006	0.421	-0.011	0.014	
DUTIES15	-0.003	0.013	0.422	-0.029	0.022	



Variances						
PHY15	0.537	0.010	0.000	0.516	0.557	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.097	0.022	0.000	1.060	1.141	*
BULLY15	0.216	0.004	0.000	0.208	0.225	*
PRESS15	0.959	0.019	0.000	0.923	0.997	*
DUTIES15	0.829	0.016	0.000	0.799	0.860	*
Between Level						
S1 ON						
PRAFAC	-0.026	0.029	0.201	-0.078	0.033	
KESCAT16 ON						
PRAFAC	0.015	0.028	0.287	-0.039	0.069	
PRESS15	-0.229	0.145	0.054	-0.531	0.058	
PRAFAC WITH						
PRESS15	-0.004	0.050	0.468	-0.108	0.093	
Means						
PRAFAC	-0.182	0.152	0.119	-0.483	0.115	
PRESS15	2.365	0.040	0.000	2.289	2.449	*
Intercepts						
S1	-0.028	0.031	0.167	-0.089	0.035	
Thresholds						
KESCAT16\$1	0.802	0.352	0.017	0.070	1.490	*
Variances						
PRAFAC	1.359	0.269	0.000	0.966	1.995	*
PRESS15	0.074	0.017	0.000	0.048	0.117	*
Residual Variances						
KESCAT16	0.008	0.007	0.000	0.001	0.027	*
S1	0.004	0.006	0.000	0.000	0.021	*

# STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON PRESS15	-0.020	0.025	0.207	-0.070	0.026	
KESCAT16 ON						
PHY15	0.087	0.021	0.000	0.045	0.129	*
CHOICE15	-0.053	0.023	0.010	-0.098	-0.008	*
DUTIES15	-0.064	0.021	0.002	-0.105	-0.022	*
BULLY15	0.045	0.019	0.014	0.007	0.083	*
KES15	0.433	0.020	0.000	0.394	0.470	*
KES15 WITH						
PHY15	0.240	0.013	0.000	0.214	0.265	*
CHOICE15	-0.113	0.014	0.000	-0.139	-0.085	*
BULLY15	0.154	0.013	0.000	0.128	0.180	*
PRESS15	0.174	0.013	0.000	0.148	0.201	*
DUTIES15	-0.180	0.013	0.000	-0.205	-0.154	*
PHY15 WITH						
CHOICE15	-0.120	0.014	0.000	-0.146	-0.093	*
BULLY15	0.072	0.014	0.000	0.045	0.098	*
PRESS15	0.083	0.014	0.000	0.056	0.110	*
DUTIES15	-0.084	0.014	0.000	-0.111	-0.057	*
CHOICE15 WITH						
BULLY15	-0.106	0.013	0.000	-0.132	-0.079	*
PRESS15	-0.064	0.014	0.000	-0.092	-0.036	*
DUTIES15	0.166	0.014	0.000	0.140	0.193	*
BULLY15 WITH						
PRESS15	0.192	0.013	0.000	0.165	0.217	*
DUTIES15	-0.138	0.013	0.000	-0.164	-0.112	*
PRESS15 WITH						
DUTIES15	-0.167	0.014	0.000	-0.193	-0.140	*
Means						
PHY15	0.002	0.014	0.437	-0.024	0.029	
KES15	0.010	0.013	0.232	-0.016	0.037	
CHOICE15	-0.003	0.014	0.409	-0.030	0.024	

BULLY15	0.003	0.014	0.416	-0.024	0.029	
DUTIES15	-0.003	0.014	0.419	-0.032	0.025	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.417	0.416	0.201	-0.976	0.527	
KESCAT16 ON						
PRAFAC	0.149	0.266	0.287	-0.399	0.621	
PRESS15	-0.543	0.278	0.054	-0.931	0.146	
PRAFAC WITH						
PRESS15	-0.013	0.147	0.468	-0.318	0.272	
Means						
PRAFAC	-0.158	0.129	0.119	-0.417	0.093	
PRESS15	8.693	0.986	0.000	6.879	10.811	*
Intercepts						
S1	-0.355	0.487	0.167	-1.493	0.437	
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.600	0.247	0.000	0.089	0.973	*
S1	0.791	0.296	0.000	0.046	0.999	*

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Posterior One-Tailed 95% C.I.

Variable	Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.251	0.017	0.000	0.218	0.286

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.400	0.247	0.000	0.027	0.911

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.209	0.296	0.000	0.001	0.954

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16  
 \_\_\_\_\_  
 0

NU

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____
0	0	0	0	0

NU

PRESS15	DUTIES15
_____	_____
0	0

LAMBDA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____

KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

# ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA	
PRESS15	DUTIES15
<u>0</u>	<u>5</u>

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
KESCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15	DUTIES15	
KESCAT16	<u>0</u>	<u>10</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
KESCAT16	<u>0</u>	<u>11</u>	<u>13</u>	<u>16</u>	<u>20</u>
PHY15	0	11	13	16	20
KES15	0	12	15	19	24
CHOICE15	0	14	18	23	27
BULLY15	0	17	22	28	31
PRESS15	0	21	26	30	34
DUTIES15	0	26	31	35	39

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u>          </u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>43</u>

NU			
KESCAT16	PRAFAC	PRESS15	
<u>0</u>	<u>0</u>	<u>0</u>	

	LAMBDA			
	S1	KESCAT16	PRAFAC	PRESS15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
PRESS15	0	0	0	0

	THETA		
	KESCAT16	PRAFAC	PRESS15
KESCAT16	<u>0</u>	<u>          </u>	<u>          </u>
PRAFAC	0	0	
PRESS15	0	0	0

	ALPHA			
	S1	KESCAT16	PRAFAC	PRESS15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

	BETA			
	S1	KESCAT16	PRAFAC	PRESS15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
PRESS15	0	0	0	0

	PSI			
	S1	KESCAT16	PRAFAC	PRESS15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	39		
PRAFAC	0	0	40	
PRESS15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<u>0.000</u>

NU				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000



KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000			
PHY15	0.000	0.268		
KES15	0.000	0.000	0.048	
CHOICE15	0.000	0.000	0.000	0.549
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.108
DUTIES15	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15

PRESS15	<u>0.501</u>	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
KESCAT16	
	<u>1.091</u>

NU			
KESCAT16	PRAFAC	PRESS15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

LAMBDA				
S1	KESCAT16	PRAFAC	PRESS15	
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000

THETA			
KESCAT16	PRAFAC	PRESS15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PRAFAC	0.000		
PRESS15	0.000	0.000	

ALPHA			
S1	KESCAT16	PRAFAC	PRESS15
<u>0.000</u>	<u>0.000</u>	<u>0.006</u>	<u>2.445</u>

BETA			
S1	KESCAT16	PRAFAC	PRESS15

S1	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000

PSI				
	S1	KESCAT16	PRAFAC	PRESS15
S1	1.000			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.506	
PRESS15	0.000	0.000	0.000	0.501

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity

Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.996039D-04				
2	0.101520D-04	0.164370D-04			
3	-0.179381D-04	-0.496511D-05	0.212664D-03		
4	0.416264D-05	0.420249D-05	-0.155521D-04	0.402876D-04	
5	-0.128891D-04	-0.109292D-04	0.300199D-04	-0.134880D-04	0.165608D-03
6	-0.703469D-05	-0.368876D-05	-0.390901D-05	-0.859723D-05	0.520515D-06
7	0.416369D-05	0.187586D-05	0.322498D-04	-0.878127D-05	0.302087D-04
8	-0.654594D-05	-0.342266D-05	0.174322D-04	-0.538077D-05	0.322904D-05
9	-0.209239D-04	-0.370803D-05	-0.500895D-05	0.838047D-05	-0.247168D-05
10	-0.123946D-04	-0.418829D-05	0.257788D-06	-0.179796D-05	0.251023D-04
11	0.404948D-06	-0.255476D-06	0.288001D-05	0.238911D-05	-0.314959D-05
12	0.647046D-06	-0.578960D-08	0.163291D-05	-0.768887D-07	0.602264D-06
13	-0.342679D-06	0.178513D-06	0.126145D-05	-0.195108D-06	0.179699D-06
14	0.223303D-05	0.183552D-05	0.210562D-05	0.264863D-05	0.168531D-06
15	0.867076D-06	0.553446D-06	-0.215247D-05	0.119076D-05	-0.146082D-05
16	0.346791D-05	-0.343006D-05	0.854756D-05	0.206249D-05	0.932364D-05
17	0.135988D-05	0.144676D-06	0.920570D-06	0.135233D-05	0.423817D-06
18	0.328928D-06	0.304651D-06	0.160375D-05	0.966544D-07	-0.586992D-06

19	0.720612D-06	0.180770D-05	-0.290027D-05	-0.109782D-05	-0.176370D-05
20	-0.102606D-05	0.439924D-06	0.768078D-06	0.355269D-06	0.831191D-07
21	-0.257464D-06	0.149776D-06	0.834255D-06	-0.575630D-06	0.698337D-05
22	0.745984D-06	0.268911D-06	-0.163826D-05	0.420586D-06	0.104909D-05
23	0.468235D-05	0.417812D-05	0.237479D-05	-0.211074D-06	-0.111296D-04
24	-0.829143D-06	-0.102800D-06	-0.266979D-05	-0.304555D-06	0.869434D-06
25	-0.108926D-04	0.218963D-05	-0.115786D-04	-0.126477D-05	-0.365504D-05
26	0.203207D-05	-0.503033D-06	-0.619660D-05	-0.110225D-05	0.950108D-06
27	-0.125229D-05	-0.972993D-06	-0.279248D-05	-0.683497D-06	0.270202D-05
28	-0.578124D-05	-0.435832D-06	-0.194993D-06	0.456593D-05	-0.542336D-06
29	-0.962453D-06	-0.631959D-06	-0.237308D-05	-0.123977D-05	0.150911D-05
30	0.205418D-05	0.119857D-05	-0.385638D-05	0.498594D-06	0.139859D-05
31	0.290000D-05	0.225686D-05	0.316684D-05	0.454641D-05	0.482636D-06
32	0.802328D-05	-0.518923D-06	0.191485D-04	-0.259626D-05	0.415067D-05
33	-0.188117D-04	0.171116D-04	-0.157507D-04	0.429263D-04	-0.286153D-04
34	0.902635D-05	0.738787D-05	-0.154283D-04	0.162616D-04	-0.482384D-04
35	-0.379187D-05	-0.326155D-05	0.137671D-04	-0.413482D-05	0.506433D-05
36	0.238918D-05	-0.995301D-06	0.106317D-04	0.429787D-05	0.156032D-06
37	-0.624269D-04	0.120034D-04	-0.505675D-04	0.278101D-04	-0.397332D-04
38	0.127391D-05	-0.393968D-06	0.284618D-05	-0.522433D-06	0.685287D-06
39	0.268032D-06	0.989573D-07	0.428775D-05	-0.229043D-06	-0.170848D-06
40	-0.416804D-04	-0.186746D-04	-0.171166D-04	0.647941D-05	-0.709162D-04
41	0.130578D-04	-0.380589D-05	0.342761D-05	0.260950D-06	0.300452D-06
42	-0.912409D-06	0.352836D-05	0.140712D-04	0.511779D-06	-0.463715D-05
43	-0.151273D-03	0.296808D-04	-0.123946D-03	0.607402D-04	-0.103322D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.111942D-02				
7	-0.613351D-03	0.761306D-02			
8	0.102176D-03	0.945222D-05	0.667737D-03		
9	-0.149088D-03	-0.276349D-03	0.106550D-03	0.238787D-02	
10	-0.372875D-04	0.211414D-03	-0.832847D-04	0.115480D-03	0.755681D-03
11	0.221172D-05	0.256978D-04	0.117418D-04	0.225474D-04	-0.115458D-04
12	-0.608055D-06	0.104026D-04	0.109876D-05	0.556086D-05	-0.958210D-06
13	0.157497D-06	0.152129D-05	0.277266D-05	0.327242D-05	-0.362123D-06
14	-0.535162D-05	0.200182D-04	0.649301D-05	0.111772D-05	0.136399D-04
15	-0.160626D-05	0.639608D-05	0.104019D-05	-0.443346D-05	0.414433D-05
16	-0.300010D-04	-0.229772D-04	-0.670953D-05	0.173284D-05	-0.186493D-04
17	-0.657308D-05	0.105210D-04	-0.492833D-05	0.968594D-05	-0.188380D-05
18	0.500967D-06	-0.119332D-05	0.107239D-05	0.302673D-05	0.107058D-05
19	0.591633D-05	-0.132710D-04	0.183622D-05	-0.602006D-05	0.269429D-05

20	-0.343971D-05	0.143556D-04	-0.261556D-05	0.686062D-05	-0.449255D-05
21	-0.862331D-05	0.416819D-04	0.708688D-05	0.208031D-04	0.691775D-05
22	0.512030D-06	-0.155639D-05	0.364463D-05	0.610707D-05	-0.220673D-05
23	0.535078D-05	0.181148D-04	0.225845D-05	0.990807D-05	0.236375D-04
24	-0.635560D-05	0.172495D-04	-0.172032D-06	0.710209D-05	-0.202843D-05
25	-0.647373D-05	-0.731919D-05	-0.683455D-05	-0.809089D-05	0.107632D-04
26	0.396033D-05	-0.105635D-04	-0.132830D-04	0.864334D-05	0.596190D-05
27	-0.868383D-06	0.157037D-04	-0.315771D-05	-0.820373D-06	0.933960D-05
28	0.270021D-06	0.502836D-04	-0.801237D-05	-0.284999D-05	0.705566D-05
29	-0.280133D-05	-0.101103D-04	0.166253D-05	0.433215D-05	0.709380D-05
30	-0.403108D-05	0.532755D-05	0.642027D-05	-0.154185D-04	0.124928D-04
31	-0.893375D-05	0.538890D-04	-0.390120D-05	0.307060D-04	-0.776182D-05
32	-0.254811D-04	-0.201693D-03	-0.101348D-05	-0.305236D-03	0.672337D-04
33	-0.170435D-03	-0.272314D-03	-0.122130D-03	-0.365702D-04	-0.113417D-03
34	0.428760D-04	0.617075D-05	0.629114D-04	0.314803D-04	-0.201819D-04
35	-0.450679D-04	0.252649D-04	-0.758729D-05	-0.411594D-04	-0.553280D-05
36	0.614486D-04	0.473421D-04	-0.812987D-05	0.203081D-04	-0.103893D-04
37	-0.127100D-03	-0.610430D-03	0.228057D-03	-0.159524D-03	0.924435D-04
38	-0.424358D-05	0.110621D-04	0.600506D-06	-0.938463D-06	-0.278023D-05
39	-0.242110D-05	0.290461D-04	0.631249D-05	0.181427D-04	-0.582576D-05
40	-0.160315D-04	0.607898D-04	-0.126910D-03	-0.193656D-03	0.210957D-03
41	-0.569117D-06	-0.150378D-03	0.367881D-05	0.466614D-04	0.782292D-04
42	0.531717D-05	0.734581D-04	0.131298D-04	0.112420D-04	0.128000D-05
43	-0.246212D-03	-0.337908D-03	0.474214D-03	-0.377918D-03	0.201547D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.105287D-03				
12	0.105764D-04	0.104163D-04			
13	0.167080D-05	0.186854D-05	0.327799D-05		
14	-0.200630D-04	-0.617491D-05	-0.160208D-05	0.112508D-03	
15	-0.175549D-05	-0.254610D-05	-0.139141D-05	0.118513D-04	0.203322D-04
16	0.679092D-05	0.214515D-05	-0.117409D-06	-0.322785D-04	-0.117590D-04
17	0.374011D-05	0.213191D-05	0.326184D-06	-0.607082D-05	0.644264D-07
18	0.584534D-06	0.659408D-06	0.964878D-06	-0.962201D-06	-0.105967D-05
19	-0.295623D-05	-0.185093D-05	-0.870782D-06	0.507981D-05	0.534878D-05
20	0.276615D-05	0.360769D-06	0.256483D-06	-0.191409D-06	0.163748D-06
21	0.804657D-05	0.541720D-05	0.735481D-06	-0.922546D-05	-0.504751D-06
22	0.587746D-06	0.752091D-06	0.182627D-05	-0.669604D-06	-0.155341D-05
23	0.467565D-06	-0.151936D-05	-0.974055D-06	0.141699D-04	0.115534D-04
24	0.182526D-06	0.124232D-06	0.282010D-06	-0.199006D-06	-0.241560D-06
25	0.622776D-05	0.143386D-05	0.133917D-05	-0.543756D-05	-0.887613D-06

26	-0.111984D-04	-0.572876D-05	-0.136564D-05	0.200399D-04	0.605512D-06
27	-0.242462D-05	-0.173874D-05	-0.149093D-05	0.307121D-05	0.252673D-05
28	0.197617D-05	0.697609D-06	0.730289D-06	-0.116391D-04	-0.110267D-04
29	-0.105217D-05	-0.917037D-06	-0.551427D-06	-0.151513D-05	0.255807D-07
30	-0.391508D-05	-0.135590D-05	-0.281816D-06	0.286229D-05	0.163557D-05
31	0.486732D-05	0.677490D-07	0.241627D-06	-0.634056D-05	-0.125254D-05
32	0.608109D-05	0.342974D-05	0.101284D-05	-0.132042D-04	0.770316D-06
33	0.732086D-05	-0.251176D-05	-0.591239D-05	-0.739459D-04	0.169687D-04
34	-0.200563D-05	0.147970D-05	-0.491669D-06	0.193729D-04	0.174887D-05
35	-0.323464D-06	-0.192097D-06	0.397212D-06	-0.204070D-04	0.192277D-05
36	0.866118D-05	-0.187645D-05	-0.170750D-06	-0.642414D-05	-0.478133D-05
37	-0.221486D-04	-0.178198D-04	-0.270362D-05	0.446426D-04	0.327447D-04
38	0.876537D-06	-0.265795D-06	-0.442408D-06	-0.282844D-05	0.749430D-06
39	0.106880D-05	0.551482D-06	-0.504078D-06	-0.135073D-05	-0.745301D-06
40	0.605611D-04	-0.115328D-05	0.159518D-05	-0.123609D-05	-0.405389D-05
41	-0.133089D-04	-0.422357D-05	0.215828D-05	0.342312D-04	0.128694D-04
42	0.448934D-05	-0.168721D-05	0.153790D-06	0.393859D-05	0.124949D-05
43	-0.531954D-04	-0.418017D-04	-0.749511D-05	0.114057D-03	0.767444D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.463661D-03				
17	0.184606D-05	0.218436D-04			
18	-0.241772D-06	0.258746D-05	0.396591D-05		
19	-0.147206D-04	-0.451732D-05	-0.162970D-05	0.446572D-04	
20	0.124682D-05	0.255384D-05	0.181448D-05	-0.365983D-05	0.184375D-04
21	-0.100751D-04	0.874000D-05	0.120688D-05	-0.262666D-05	-0.483975D-06
22	-0.929816D-06	0.498344D-06	0.186325D-05	-0.166747D-05	-0.109900D-06
23	-0.308471D-04	0.294467D-05	-0.226767D-06	0.187552D-04	0.163799D-05
24	-0.863876D-07	0.259119D-05	0.234193D-05	-0.151419D-05	0.826959D-05
25	-0.651425D-05	0.233576D-05	0.139255D-05	-0.134852D-05	0.109939D-05
26	-0.764753D-05	-0.476677D-05	-0.787299D-06	0.323655D-05	-0.180474D-05
27	-0.408043D-05	-0.635562D-06	-0.118529D-05	0.106989D-05	-0.365313D-06
28	0.639434D-04	0.220806D-05	0.682862D-06	-0.113264D-04	0.151379D-05
29	-0.680095D-05	-0.171309D-05	-0.161986D-05	0.603383D-05	-0.505307D-05
30	-0.593577D-05	0.347451D-07	-0.247473D-06	0.247982D-05	-0.987473D-06
31	0.162098D-04	0.441653D-05	0.336171D-06	-0.327075D-05	0.140969D-06
32	0.243442D-04	0.254454D-05	0.184892D-05	-0.317992D-05	-0.548047D-05
33	0.117259D-03	0.341957D-04	-0.104628D-04	0.260485D-04	0.458172D-05
34	0.901397D-05	-0.180547D-06	0.280822D-05	0.262336D-05	0.845766D-06
35	0.781280D-06	0.295804D-06	-0.112139D-05	0.152647D-05	-0.601793D-05
36	0.332806D-05	0.788530D-06	0.217123D-06	-0.118763D-05	-0.227418D-05



37	-0.178107D-04	-0.227242D-05	-0.703787D-05	0.133883D-04	-0.114362D-04
38	0.893108D-06	-0.194674D-06	-0.481880D-06	-0.136549D-07	-0.697987D-06
39	0.629170D-05	0.188111D-05	-0.471849D-06	0.422292D-06	-0.691002D-07
40	-0.321008D-03	0.193385D-05	0.265687D-04	-0.584491D-04	-0.208404D-04
41	0.249060D-04	-0.408700D-05	0.369186D-05	-0.634539D-05	-0.157978D-05
42	-0.225226D-05	-0.914457D-06	0.156734D-08	0.220245D-05	0.345947D-05
43	-0.313951D-04	-0.729345D-05	-0.177829D-04	0.291476D-04	-0.255196D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.104062D-03				
22	0.102724D-04	0.169863D-04			
23	-0.147965D-04	-0.109265D-04	0.213119D-03		
24	0.302889D-05	0.444072D-05	-0.924725D-05	0.397744D-04	
25	0.205349D-04	0.188744D-04	-0.196128D-04	0.301029D-04	0.364061D-03
26	-0.170796D-04	-0.195461D-05	0.351688D-05	-0.772294D-06	-0.366447D-05
27	-0.221578D-05	-0.277935D-05	0.350066D-05	-0.531955D-06	-0.169264D-05
28	-0.176772D-05	0.220807D-05	-0.327281D-04	0.452102D-05	-0.382597D-05
29	-0.325194D-05	-0.975970D-06	0.105492D-05	-0.586979D-05	-0.449173D-05
30	-0.121427D-04	-0.117164D-04	0.312818D-04	-0.123307D-04	-0.546580D-04
31	0.351407D-05	0.297629D-05	-0.136424D-04	0.523492D-05	0.128341D-04
32	0.364705D-05	0.218689D-05	-0.485675D-05	-0.455324D-05	0.216614D-04
33	-0.623590D-05	-0.108437D-04	-0.421180D-05	-0.261010D-05	0.160399D-03
34	-0.682597D-06	0.245437D-05	-0.366258D-04	-0.176216D-05	0.404648D-04
35	0.339608D-05	0.132745D-06	0.411955D-05	-0.377239D-05	0.152780D-04
36	0.529808D-05	0.412037D-05	-0.180247D-04	0.295417D-05	0.998954D-05
37	-0.344407D-05	-0.115718D-04	0.138550D-03	0.353373D-05	-0.397283D-04
38	0.120881D-05	0.475217D-06	-0.508111D-05	-0.306098D-06	0.357709D-06
39	0.221723D-05	0.352738D-06	0.164536D-05	0.267557D-06	-0.206961D-05
40	0.153378D-03	0.334914D-04	-0.143313D-03	-0.330519D-04	-0.175207D-04
41	0.108622D-04	0.122353D-04	0.150761D-04	0.102719D-04	0.500695D-04
42	-0.608806D-05	0.215910D-05	0.551129D-05	-0.809199D-06	0.474157D-05
43	-0.777860D-05	-0.291767D-04	0.331195D-03	0.445905D-05	-0.986794D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	26	27	28	29
26	0.858011D-04			
27	0.957105D-05	0.148105D-04		
28	-0.163937D-04	-0.627141D-05	0.184148D-03	
29	0.261863D-05	0.344357D-05	-0.816712D-05	0.338756D-04

30	0.862203D-05	0.970142D-05	-0.109403D-04	0.138878D-04	0.156307D-03
31	-0.227481D-04	-0.159112D-04	0.493206D-04	-0.171954D-04	-0.520593D-04
32	-0.293667D-05	0.445487D-05	-0.143437D-04	0.309971D-05	0.106037D-04
33	-0.551339D-04	-0.334143D-06	0.127578D-04	-0.299903D-04	-0.166023D-04
34	0.820759D-06	-0.486090D-05	0.892221D-05	-0.324178D-05	-0.155987D-04
35	0.355405D-05	-0.209240D-05	-0.122874D-04	0.525479D-05	-0.627467D-05
36	0.167714D-05	0.242967D-05	0.378681D-05	-0.531212D-05	0.670720D-05
37	0.562788D-04	0.219333D-04	0.335679D-04	0.102200D-04	0.520594D-04
38	-0.219723D-05	-0.267144D-06	0.771126D-06	0.117174D-05	-0.208781D-05
39	-0.560283D-06	0.196717D-06	0.642201D-06	-0.526166D-06	-0.153613D-05
40	0.620079D-05	0.685602D-05	-0.610442D-04	-0.106782D-04	0.908556D-05
41	0.165217D-05	-0.101483D-04	-0.562718D-05	0.300126D-06	-0.401347D-05
42	-0.120328D-06	-0.210461D-05	0.567472D-05	-0.226411D-05	-0.371699D-05
43	0.121292D-03	0.550087D-04	0.791903D-04	0.229658D-04	0.112719D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.250773D-03				
32	-0.184435D-04	0.947397D-03			
33	0.199850D-04	0.739123D-04	0.230451D-01		
34	0.125938D-04	0.176187D-04	0.667564D-04	0.163015D-02	
35	-0.933892D-05	0.355321D-04	-0.205292D-03	-0.343935D-04	0.820187D-03
36	-0.247689D-05	0.424640D-05	-0.470400D-04	-0.436683D-04	-0.681611D-04
37	-0.868665D-04	-0.211448D-03	-0.451961D-03	-0.219062D-03	0.816956D-04
38	0.489849D-06	0.508204D-05	-0.290826D-04	-0.188194D-05	0.281270D-04
39	-0.193549D-05	-0.114680D-04	0.150741D-04	0.380621D-06	0.435679D-06
40	0.666654D-04	-0.971309D-04	-0.845805D-03	0.193172D-04	0.241466D-04
41	-0.898505D-05	0.525728D-04	0.223915D-03	0.413807D-04	0.993809D-06
42	0.385830D-05	-0.835774D-05	0.529839D-04	-0.282682D-04	-0.824580D-05
43	-0.185491D-03	-0.501392D-03	-0.116741D-02	-0.604284D-03	0.238957D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.756314D-03				
37	-0.214020D-03	0.211348D-01			
38	0.373330D-05	0.258350D-04	0.314203D-04		
39	0.189496D-04	0.371465D-04	0.312047D-06	0.492813D-04	
40	0.665646D-04	0.133260D-03	-0.270604D-05	0.153785D-04	0.724560D-01
41	0.448788D-04	-0.854739D-04	0.587676D-05	-0.973346D-05	-0.201727D-03
42	-0.161610D-04	0.180185D-03	0.463658D-06	-0.276992D-05	0.702035D-04

43 -0.522848D-03 0.508572D-01 0.671971D-04 0.124869D-03 0.250661D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.246886D-02		
42	-0.478416D-04	0.296937D-03	
43	-0.197652D-03	0.418147D-03	0.123480D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.251	1.000			
3	-0.123	-0.084	1.000		
4	0.066	0.163	-0.168	1.000	
5	-0.100	-0.209	0.160	-0.165	1.000
6	-0.021	-0.027	-0.008	-0.040	0.001
7	0.005	0.005	0.025	-0.016	0.027
8	-0.025	-0.033	0.046	-0.033	0.010
9	-0.043	-0.019	-0.007	0.027	-0.004
10	-0.045	-0.038	0.001	-0.010	0.071
11	0.004	-0.006	0.019	0.037	-0.024
12	0.020	0.000	0.035	-0.004	0.015
13	-0.019	0.024	0.048	-0.017	0.008
14	0.021	0.043	0.014	0.039	0.001
15	0.019	0.030	-0.033	0.042	-0.025
16	0.016	-0.039	0.027	0.015	0.034
17	0.029	0.008	0.014	0.046	0.007
18	0.017	0.038	0.055	0.008	-0.023
19	0.011	0.067	-0.030	-0.026	-0.021
20	-0.024	0.025	0.012	0.013	0.002
21	-0.003	0.004	0.006	-0.009	0.053
22	0.018	0.016	-0.027	0.016	0.020
23	0.032	0.071	0.011	-0.002	-0.059
24	-0.013	-0.004	-0.029	-0.008	0.011
25	-0.057	0.028	-0.042	-0.010	-0.015
26	0.022	-0.013	-0.046	-0.019	0.008
27	-0.033	-0.062	-0.050	-0.028	0.055
28	-0.043	-0.008	-0.001	0.053	-0.003
29	-0.017	-0.027	-0.028	-0.034	0.020
30	0.016	0.024	-0.021	0.006	0.009

31	0.018	0.035	0.014	0.045	0.002
32	0.026	-0.004	0.043	-0.013	0.010
33	-0.012	0.028	-0.007	0.045	-0.015
34	0.022	0.045	-0.026	0.063	-0.093
35	-0.013	-0.028	0.033	-0.023	0.014
36	0.009	-0.009	0.027	0.025	0.000
37	-0.043	0.020	-0.024	0.030	-0.021
38	0.023	-0.017	0.035	-0.015	0.010
39	0.004	0.003	0.042	-0.005	-0.002
40	-0.016	-0.017	-0.004	0.004	-0.020
41	0.026	-0.019	0.005	0.001	0.000
42	-0.005	0.051	0.056	0.005	-0.021
43	-0.043	0.021	-0.024	0.027	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.210	1.000			
8	0.118	0.004	1.000		
9	-0.091	-0.065	0.084	1.000	
10	-0.041	0.088	-0.117	0.086	1.000
11	0.006	0.029	0.044	0.045	-0.041
12	-0.006	0.037	0.013	0.035	-0.011
13	0.003	0.010	0.059	0.037	-0.007
14	-0.015	0.022	0.024	0.002	0.047
15	-0.011	0.016	0.009	-0.020	0.033
16	-0.042	-0.012	-0.012	0.002	-0.032
17	-0.042	0.026	-0.041	0.042	-0.015
18	0.008	-0.007	0.021	0.031	0.020
19	0.026	-0.023	0.011	-0.018	0.015
20	-0.024	0.038	-0.024	0.033	-0.038
21	-0.025	0.047	0.027	0.042	0.025
22	0.004	-0.004	0.034	0.030	-0.019
23	0.011	0.014	0.006	0.014	0.059
24	-0.030	0.031	-0.001	0.023	-0.012
25	-0.010	-0.004	-0.014	-0.009	0.021
26	0.013	-0.013	-0.055	0.019	0.023
27	-0.007	0.047	-0.032	-0.004	0.088
28	0.001	0.042	-0.023	-0.004	0.019
29	-0.014	-0.020	0.011	0.015	0.044
30	-0.010	0.005	0.020	-0.025	0.036
31	-0.017	0.039	-0.010	0.040	-0.018

32	-0.025	-0.075	-0.001	-0.203	0.079
33	-0.034	-0.021	-0.031	-0.005	-0.027
34	0.032	0.002	0.060	0.016	-0.018
35	-0.047	0.010	-0.010	-0.029	-0.007
36	0.067	0.020	-0.011	0.015	-0.014
37	-0.026	-0.048	0.061	-0.022	0.023
38	-0.023	0.023	0.004	-0.003	-0.018
39	-0.010	0.047	0.035	0.053	-0.030
40	-0.002	0.003	-0.018	-0.015	0.029
41	0.000	-0.035	0.003	0.019	0.057
42	0.009	0.049	0.029	0.013	0.003
43	-0.021	-0.011	0.052	-0.022	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.319	1.000			
13	0.090	0.320	1.000		
14	-0.184	-0.180	-0.083	1.000	
15	-0.038	-0.175	-0.170	0.248	1.000
16	0.031	0.031	-0.003	-0.141	-0.121
17	0.078	0.141	0.039	-0.122	0.003
18	0.029	0.103	0.268	-0.046	-0.118
19	-0.043	-0.086	-0.072	0.072	0.178
20	0.063	0.026	0.033	-0.004	0.008
21	0.077	0.165	0.040	-0.085	-0.011
22	0.014	0.057	0.245	-0.015	-0.084
23	0.003	-0.032	-0.037	0.092	0.176
24	0.003	0.006	0.025	-0.003	-0.008
25	0.032	0.023	0.039	-0.027	-0.010
26	-0.118	-0.192	-0.081	0.204	0.014
27	-0.061	-0.140	-0.214	0.075	0.146
28	0.014	0.016	0.030	-0.081	-0.180
29	-0.018	-0.049	-0.052	-0.025	0.001
30	-0.031	-0.034	-0.012	0.022	0.029
31	0.030	0.001	0.008	-0.038	-0.018
32	0.019	0.035	0.018	-0.040	0.006
33	0.005	-0.005	-0.022	-0.046	0.025
34	-0.005	0.011	-0.007	0.045	0.010
35	-0.001	-0.002	0.008	-0.067	0.015
36	0.031	-0.021	-0.003	-0.022	-0.039
37	-0.015	-0.038	-0.010	0.029	0.050

38	0.015	-0.015	-0.044	-0.048	0.030
39	0.015	0.024	-0.040	-0.018	-0.024
40	0.022	-0.001	0.003	0.000	-0.003
41	-0.026	-0.026	0.024	0.065	0.057
42	0.025	-0.030	0.005	0.022	0.016
43	-0.015	-0.037	-0.012	0.031	0.048

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.018	1.000			
18	-0.006	0.278	1.000		
19	-0.102	-0.145	-0.122	1.000	
20	0.013	0.127	0.212	-0.128	1.000
21	-0.046	0.183	0.059	-0.039	-0.011
22	-0.010	0.026	0.227	-0.061	-0.006
23	-0.098	0.043	-0.008	0.192	0.026
24	-0.001	0.088	0.186	-0.036	0.305
25	-0.016	0.026	0.037	-0.011	0.013
26	-0.038	-0.110	-0.043	0.052	-0.045
27	-0.049	-0.035	-0.155	0.042	-0.022
28	0.219	0.035	0.025	-0.125	0.026
29	-0.054	-0.063	-0.140	0.155	-0.202
30	-0.022	0.001	-0.010	0.030	-0.018
31	0.048	0.060	0.011	-0.031	0.002
32	0.037	0.018	0.030	-0.015	-0.041
33	0.036	0.048	-0.035	0.026	0.007
34	0.010	-0.001	0.035	0.010	0.005
35	0.001	0.002	-0.020	0.008	-0.049
36	0.006	0.006	0.004	-0.006	-0.019
37	-0.006	-0.003	-0.024	0.014	-0.018
38	0.007	-0.007	-0.043	0.000	-0.029
39	0.042	0.057	-0.034	0.009	-0.002
40	-0.055	0.002	0.050	-0.032	-0.018
41	0.023	-0.018	0.037	-0.019	-0.007
42	-0.006	-0.011	0.000	0.019	0.047
43	-0.004	-0.004	-0.025	0.012	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25

21	1.000				
22	0.244	1.000			
23	-0.099	-0.182	1.000		
24	0.047	0.171	-0.100	1.000	
25	0.106	0.240	-0.070	0.250	1.000
26	-0.181	-0.051	0.026	-0.013	-0.021
27	-0.056	-0.175	0.062	-0.022	-0.023
28	-0.013	0.039	-0.165	0.053	-0.015
29	-0.055	-0.041	0.012	-0.160	-0.040
30	-0.095	-0.227	0.171	-0.156	-0.229
31	0.022	0.046	-0.059	0.052	0.042
32	0.012	0.017	-0.011	-0.023	0.037
33	-0.004	-0.017	-0.002	-0.003	0.055
34	-0.002	0.015	-0.062	-0.007	0.053
35	0.012	0.001	0.010	-0.021	0.028
36	0.019	0.036	-0.045	0.017	0.019
37	-0.002	-0.019	0.065	0.004	-0.014
38	0.021	0.021	-0.062	-0.009	0.003
39	0.031	0.012	0.016	0.006	-0.015
40	0.056	0.030	-0.036	-0.019	-0.003
41	0.021	0.060	0.021	0.033	0.053
42	-0.035	0.030	0.022	-0.007	0.014
43	-0.002	-0.020	0.065	0.002	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.268	1.000			
28	-0.130	-0.120	1.000		
29	0.049	0.154	-0.103	1.000	
30	0.074	0.202	-0.064	0.191	1.000
31	-0.155	-0.261	0.230	-0.187	-0.263
32	-0.010	0.038	-0.034	0.017	0.028
33	-0.039	-0.001	0.006	-0.034	-0.009
34	0.002	-0.031	0.016	-0.014	-0.031
35	0.013	-0.019	-0.032	0.032	-0.018
36	0.007	0.023	0.010	-0.033	0.020
37	0.042	0.039	0.017	0.012	0.029
38	-0.042	-0.012	0.010	0.036	-0.030
39	-0.009	0.007	0.007	-0.013	-0.018
40	0.002	0.007	-0.017	-0.007	0.003
41	0.004	-0.053	-0.008	0.001	-0.006

42	-0.001	-0.032	0.024	-0.023	-0.017
43	0.037	0.041	0.017	0.011	0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.038	1.000			
33	0.008	0.016	1.000		
34	0.020	0.014	0.011	1.000	
35	-0.021	0.040	-0.047	-0.030	1.000
36	-0.006	0.005	-0.011	-0.039	-0.087
37	-0.038	-0.047	-0.020	-0.037	0.020
38	0.006	0.029	-0.034	-0.008	0.175
39	-0.017	-0.053	0.014	0.001	0.002
40	0.016	-0.012	-0.021	0.002	0.003
41	-0.011	0.034	0.030	0.021	0.001
42	0.014	-0.016	0.020	-0.041	-0.017
43	-0.033	-0.046	-0.022	-0.043	0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.054	1.000			
38	0.024	0.032	1.000		
39	0.098	0.036	0.008	1.000	
40	0.009	0.003	-0.002	0.008	1.000
41	0.033	-0.012	0.021	-0.028	-0.015
42	-0.034	0.072	0.005	-0.023	0.015
43	-0.054	0.996	0.034	0.051	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	-0.056	1.000	
43	-0.011	0.069	1.000

TECHNICAL 8 OUTPUT



TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.010	7
200	1.020	35
300	1.013	32
400	1.004	35
500	1.002	8
600	1.004	37
700	1.002	37
800	1.001	8
900	1.001	26
1000	1.001	32

Worsening of psychological distress, role clarity interaction

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122

186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	0.950	0.950	0.950		
KES15	0.919	0.919	0.919	0.919	
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.912
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.913		
PRESS15	0.912	0.913	
DUTIES15	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16

Category 1	0.877	5135.000
Category 2	0.123	720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15	0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15	0.000	-0.400	-2.221	7.67%	-1.221	-0.221	-0.221
5345.000	1.097	-0.356	1.779	8.62%	0.779	0.779	
BULLY15	0.000	3.522	-0.153	88.29%	-0.153	-0.153	-0.153
5344.000	0.216	14.164	3.847	0.09%	-0.153	-0.153	
PRESS15	0.000	0.267	-1.445	19.70%	-0.445	-0.445	-0.445
5345.000	1.001	-0.357	2.555	2.75%	0.555	0.555	
DUTIES15	4.149	-1.296	1.000	2.34%	4.000	4.000	4.000
5347.000	0.828	1.939	5.000	39.74%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters	43
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## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.136	0.034	0.000	0.069	0.200	*
CHOICE15	-0.057	0.026	0.014	-0.106	-0.008	*
PRESS15	-0.028	0.026	0.136	-0.080	0.020	
BULLY15	0.111	0.049	0.011	0.019	0.210	*
KES15	1.625	0.087	0.000	1.456	1.801	*
KES15 WITH						
PHY15	0.054	0.003	0.000	0.048	0.061	*
CHOICE15	-0.037	0.005	0.000	-0.046	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.045	0.061	*
DUTIES15	-0.049	0.004	0.000	-0.057	-0.042	*
PHY15 WITH						
CHOICE15	-0.092	0.011	0.000	-0.112	-0.070	*
BULLY15	0.025	0.005	0.000	0.015	0.034	*
PRESS15	0.063	0.010	0.000	0.042	0.083	*
DUTIES15	-0.054	0.009	0.000	-0.072	-0.036	*
CHOICE15 WITH						
BULLY15	-0.052	0.007	0.000	-0.065	-0.039	*
PRESS15	-0.077	0.015	0.000	-0.105	-0.047	*
DUTIES15	0.157	0.014	0.000	0.132	0.186	*
BULLY15 WITH						
PRESS15	0.091	0.006	0.000	0.078	0.103	*
DUTIES15	-0.057	0.006	0.000	-0.068	-0.046	*
PRESS15 WITH						
DUTIES15	-0.153	0.013	0.000	-0.179	-0.128	*
Means						
PHY15	0.001	0.010	0.437	-0.019	0.021	
KES15	0.003	0.004	0.216	-0.005	0.011	
CHOICE15	-0.003	0.015	0.418	-0.032	0.025	
BULLY15	0.001	0.006	0.429	-0.011	0.014	
PRESS15	0.002	0.014	0.434	-0.026	0.029	

Variances						
PHY15	0.537	0.010	0.000	0.516	0.557	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.097	0.022	0.000	1.060	1.141	*
BULLY15	0.216	0.004	0.000	0.208	0.225	*
PRESS15	1.002	0.020	0.000	0.966	1.042	*
DUTIES15	0.816	0.016	0.000	0.786	0.848	*

#### Between Level

S1	ON					
PRAFAC		-0.005	0.035	0.440	-0.071	0.065
KESCAT16	ON					
PRAFAC		0.016	0.030	0.287	-0.040	0.076
DUTIES15		-0.226	0.263	0.197	-0.746	0.300
PRAFAC	WITH					
DUTIES15		0.038	0.039	0.149	-0.036	0.119
Means						
PRAFAC		-0.182	0.152	0.121	-0.489	0.109
DUTIES15		4.172	0.031	0.000	4.113	4.235 *
Intercepts						
S1		-0.085	0.037	0.017	-0.158	-0.010 *
Thresholds						
KESCAT16\$1		0.419	1.093	0.353	-1.724	2.596
Variances						
PRAFAC		1.358	0.269	0.000	0.964	2.004 *
DUTIES15		0.039	0.009	0.000	0.025	0.059 *
Residual Variances						
KESCAT16		0.012	0.008	0.000	0.002	0.033 *
S1		0.014	0.012	0.000	0.001	0.046 *

#### STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON DUTIES15	-0.064	0.025	0.004	-0.111	-0.016	*
KESCAT16 ON						
PHY15	0.086	0.021	0.000	0.044	0.127	*
CHOICE15	-0.052	0.023	0.010	-0.098	-0.008	*
PRESS15	-0.025	0.022	0.135	-0.069	0.019	
BULLY15	0.045	0.019	0.013	0.007	0.083	*
KES15	0.435	0.020	0.000	0.395	0.473	*
KES15 WITH						
PHY15	0.240	0.013	0.000	0.214	0.264	*
CHOICE15	-0.113	0.014	0.000	-0.139	-0.085	*
BULLY15	0.154	0.013	0.000	0.128	0.180	*
PRESS15	0.171	0.013	0.000	0.145	0.198	*
DUTIES15	-0.176	0.013	0.000	-0.202	-0.150	*
PHY15 WITH						
CHOICE15	-0.120	0.014	0.000	-0.146	-0.093	*
BULLY15	0.072	0.014	0.000	0.045	0.098	*
PRESS15	0.086	0.014	0.000	0.059	0.112	*
DUTIES15	-0.081	0.014	0.000	-0.108	-0.054	*
CHOICE15 WITH						
BULLY15	-0.106	0.013	0.000	-0.132	-0.079	*
PRESS15	-0.074	0.014	0.000	-0.100	-0.046	*
DUTIES15	0.167	0.014	0.000	0.140	0.194	*
BULLY15 WITH						
PRESS15	0.195	0.013	0.000	0.168	0.220	*
DUTIES15	-0.135	0.014	0.000	-0.161	-0.108	*
PRESS15 WITH						
DUTIES15	-0.169	0.014	0.000	-0.196	-0.142	*
Means						
PHY15	0.002	0.014	0.428	-0.025	0.029	
KES15	0.010	0.013	0.229	-0.016	0.037	
CHOICE15	-0.003	0.014	0.413	-0.030	0.023	

BULLY15	0.003	0.014	0.417	-0.024	0.029	
PRESS15	0.002	0.014	0.434	-0.026	0.030	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.044	0.339	0.440	-0.765	0.564	
KESCAT16 ON						
PRAFAC	0.143	0.265	0.287	-0.404	0.617	
DUTIES15	-0.368	0.358	0.197	-0.828	0.541	
PRAFAC WITH						
DUTIES15	0.170	0.153	0.149	-0.158	0.443	
Means						
PRAFAC	-0.158	0.129	0.121	-0.416	0.092	
DUTIES15	21.224	2.339	0.000	17.101	26.308	*
Intercepts						
S1	-0.690	0.477	0.017	-1.860	-0.069	*
Variances						
PRAFAC	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.753	0.207	0.000	0.252	0.989	*
S1	0.945	0.164	0.000	0.387	1.000	*

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Posterior One-Tailed 95% C.I.



Variable	Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.255	0.018	0.000	0.219	0.291

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.247	0.207	0.000	0.011	0.748

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.055	0.164	0.000	0.000	0.613

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16  
 \_\_\_\_\_  
 0

NU

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____
0	0	0	0	0

NU

PRESS15	DUTIES15
_____	_____
0	0

LAMBDA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____

KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

# ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA		
PRESS15		DUTIES15
	<hr/>	<hr/>
	5	0

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	6	7	8	9
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15		DUTIES15
	<hr/>	<hr/>
KESCAT16	10	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u>          </u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>43</u>

NU			
KESCAT16	PRAFAC	DUTIES15	
<u>0</u>	<u>0</u>	<u>0</u>	

	LAMBDA			
	S1	KESCAT16	PRAFAC	DUTIES15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0

	THETA		
	KESCAT16	PRAFAC	DUTIES15
KESCAT16	<u>0</u>	<u>          </u>	<u>          </u>
PRAFAC	0	0	
DUTIES15	0	0	0

	ALPHA			
	S1	KESCAT16	PRAFAC	DUTIES15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>

BETA				
	S1	KESCAT16	PRAFAC	DUTIES15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0

PSI				
	S1	KESCAT16	PRAFAC	DUTIES15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	39		
PRAFAC	0	0	40	
DUTIES15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU	
	KESCAT16
	<u>0.000</u>

NU					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000

KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000			
PHY15	0.000	0.268		
KES15	0.000	0.000	0.048	
CHOICE15	0.000	0.000	0.000	0.549
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.108
DUTIES15	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15

PRESS15	<u>0.501</u>	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
KESCAT16	
	<u>1.091</u>

NU			
KESCAT16	PRAFAC	DUTIES15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

LAMBDA				
S1	KESCAT16	PRAFAC	DUTIES15	
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
DUTIES15	0.000	0.000	0.000	1.000

THETA			
KESCAT16	PRAFAC	DUTIES15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PRAFAC	0.000		
DUTIES15	0.000	0.000	

ALPHA			
S1	KESCAT16	PRAFAC	DUTIES15
<u>0.000</u>	<u>0.000</u>	<u>0.006</u>	<u>4.149</u>

BETA			
S1	KESCAT16	PRAFAC	DUTIES15



S1	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

PSI				
	S1	KESCAT16	PRAFAC	DUTIES15
S1	1.000			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.506	
DUTIES15	0.000	0.000	0.000	0.414

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity

Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.999091D-04				
2	0.103228D-04	0.164795D-04			
3	-0.180148D-04	-0.487187D-05	0.212170D-03		
4	0.443972D-05	0.442027D-05	-0.158921D-04	0.407089D-04	
5	0.910706D-05	0.836613D-05	-0.180970D-04	0.153779D-04	0.195045D-03
6	-0.102180D-04	-0.538552D-05	-0.267942D-05	-0.103968D-04	-0.106559D-04
7	0.607020D-05	0.647729D-05	0.308882D-04	0.198824D-05	0.252436D-04
8	-0.723219D-05	-0.480957D-05	0.186218D-04	-0.781877D-05	-0.976738D-05
9	-0.231101D-04	-0.536301D-05	-0.221289D-05	0.672009D-05	-0.179338D-04
10	0.581062D-05	0.255888D-05	-0.136205D-05	-0.279064D-05	0.265597D-04
11	0.757622D-06	0.451549D-07	0.222450D-05	0.275307D-05	-0.259135D-05
12	0.705281D-06	0.275729D-07	0.145182D-05	-0.569318D-07	-0.373074D-06
13	-0.403964D-06	0.136367D-06	0.134667D-05	-0.262918D-06	-0.344897D-07
14	0.172639D-05	0.138454D-05	0.324627D-05	0.201134D-05	0.185884D-05
15	0.986673D-06	0.653938D-06	-0.224778D-05	0.131712D-05	0.711486D-08
16	0.376175D-05	-0.298978D-05	0.698381D-05	0.273594D-05	0.679807D-05
17	0.122161D-05	0.432609D-07	0.104100D-05	0.115671D-05	0.829167D-06
18	0.210950D-06	0.196819D-06	0.185580D-05	-0.584277D-07	-0.577266D-06

19	0.604960D-06	0.161930D-05	-0.223376D-05	-0.131386D-05	-0.129632D-05
20	-0.118709D-05	0.316933D-06	0.101624D-05	0.185615D-06	0.431408D-06
21	-0.117542D-06	0.418980D-06	0.280952D-06	-0.182546D-06	0.655633D-05
22	0.547792D-06	0.238137D-06	-0.149227D-05	0.408009D-06	0.353053D-05
23	0.495138D-05	0.451655D-05	0.331002D-05	0.717273D-06	-0.101533D-04
24	-0.100668D-05	-0.146815D-06	-0.261488D-05	-0.540067D-06	0.786402D-06
25	-0.120392D-04	0.206811D-05	-0.115924D-04	-0.136096D-05	-0.338660D-06
26	0.211908D-05	-0.499490D-06	-0.596544D-05	-0.120657D-05	0.343270D-05
27	-0.945152D-06	-0.822339D-06	-0.325943D-05	-0.485610D-06	0.202233D-05
28	-0.684030D-05	-0.104227D-05	-0.471577D-06	0.333144D-05	-0.324109D-05
29	-0.426598D-06	-0.382542D-06	-0.287055D-05	-0.722294D-06	0.163259D-05
30	0.370473D-05	0.136536D-05	-0.425829D-05	0.849270D-07	0.388049D-06
31	0.150374D-05	0.130325D-05	0.481416D-05	0.307120D-05	0.306542D-05
32	-0.704587D-05	-0.277418D-05	0.307780D-04	-0.248756D-05	-0.325967D-05
33	-0.252118D-04	0.109671D-04	0.666841D-06	0.350487D-04	0.567792D-05
34	-0.921584D-05	-0.107630D-04	0.296324D-04	-0.109150D-04	-0.485127D-04
35	-0.115959D-04	-0.183093D-05	0.329105D-04	0.231670D-05	0.172991D-04
36	0.258540D-05	-0.115089D-05	0.611144D-05	0.529318D-05	0.220400D-05
37	-0.528025D-04	0.130593D-04	0.215593D-04	-0.133288D-04	-0.251672D-05
38	0.186329D-05	0.852929D-07	0.330381D-05	-0.167864D-05	0.253231D-06
39	-0.115437D-06	-0.530959D-06	0.669135D-05	-0.223873D-06	0.112118D-05
40	-0.327003D-05	-0.177723D-04	-0.229629D-04	0.674030D-05	-0.958471D-04
41	0.100882D-04	-0.318949D-05	0.125650D-04	-0.510946D-05	-0.731775D-05
42	-0.339054D-06	0.116572D-05	0.731490D-05	-0.106435D-05	-0.573370D-05
43	-0.223336D-03	0.575479D-04	0.880290D-04	-0.577278D-04	-0.132282D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.112463D-02				
7	-0.627563D-03	0.765091D-02			
8	0.105204D-03	0.424669D-05	0.675100D-03		
9	-0.155077D-03	-0.315365D-03	0.105835D-03	0.235606D-02	
10	-0.144806D-04	-0.275576D-03	0.143949D-05	-0.232834D-03	0.679740D-03
11	0.232258D-05	0.210620D-04	0.129978D-04	0.237268D-04	-0.494131D-05
12	-0.110505D-05	0.865212D-05	0.126346D-05	0.528652D-05	-0.871449D-06
13	-0.143493D-06	0.124698D-05	0.296068D-05	0.311205D-05	0.601472D-06
14	-0.391779D-05	0.211985D-04	0.548351D-05	-0.164619D-05	0.144421D-04
15	-0.783279D-06	0.787145D-05	0.849347D-06	-0.510255D-05	0.188986D-05
16	-0.337700D-04	-0.879501D-05	-0.917113D-05	0.920010D-05	-0.121443D-04
17	-0.655634D-05	0.123200D-04	-0.529802D-05	0.101900D-04	0.664342D-06
18	0.184153D-06	-0.101440D-05	0.110851D-05	0.289945D-05	0.123984D-05
19	0.555160D-05	-0.146146D-04	0.205438D-05	-0.558814D-05	0.525325D-05

20	-0.378336D-05	0.115166D-04	-0.148184D-05	0.416450D-05	-0.187240D-05
21	-0.965708D-05	0.393323D-04	0.765941D-05	0.183283D-04	0.539444D-05
22	-0.331131D-06	-0.292185D-05	0.349665D-05	0.481490D-05	0.178765D-05
23	0.644633D-05	0.189592D-04	0.778693D-05	-0.460537D-07	0.845644D-05
24	-0.707164D-05	0.164934D-04	0.314874D-06	0.573274D-05	-0.433859D-05
25	-0.882664D-05	0.851623D-05	-0.134038D-04	-0.359385D-06	0.864073D-05
26	0.581953D-05	-0.659688D-05	-0.154937D-04	0.103684D-04	0.242889D-05
27	0.100438D-05	0.208586D-04	-0.419296D-05	0.199701D-05	0.457989D-05
28	-0.170524D-06	0.509289D-04	-0.988351D-05	0.549877D-05	-0.243771D-05
29	-0.287446D-05	-0.109452D-04	0.139420D-05	0.356684D-05	0.376404D-05
30	0.173353D-07	0.155009D-04	0.672535D-05	-0.110139D-04	0.984748D-05
31	-0.113637D-04	0.474632D-04	-0.827549D-06	0.233436D-04	-0.617131D-05
32	-0.543863D-04	0.315438D-03	-0.846079D-04	0.333959D-04	0.793988D-04
33	-0.188390D-03	-0.150689D-03	-0.105541D-03	0.183653D-04	-0.236840D-04
34	0.175637D-04	-0.851437D-05	0.469975D-04	0.179410D-04	-0.119521D-04
35	0.132731D-04	0.117445D-03	-0.150183D-04	-0.149026D-04	0.718672D-05
36	0.592860D-04	0.941112D-04	-0.150475D-04	0.330676D-04	0.251958D-04
37	0.324317D-03	-0.808265D-03	-0.223318D-04	-0.750457D-03	0.674346D-04
38	-0.569366D-05	0.735293D-04	-0.131609D-04	-0.137826D-04	0.225664D-04
39	-0.375729D-05	0.450288D-04	0.395820D-05	0.129942D-04	0.122196D-04
40	0.244562D-04	-0.726288D-04	-0.128178D-03	-0.245910D-03	0.131777D-03
41	0.146635D-04	-0.273998D-04	0.595079D-05	0.532653D-04	0.382221D-04
42	0.104705D-04	0.222768D-04	0.105573D-04	0.101802D-04	-0.899162D-05
43	0.142302D-02	-0.220089D-02	-0.177365D-03	-0.311201D-02	0.265659D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.105262D-03				
12	0.105724D-04	0.104066D-04			
13	0.166187D-05	0.186505D-05	0.328525D-05		
14	-0.199749D-04	-0.614599D-05	-0.157940D-05	0.112569D-03	
15	-0.172328D-05	-0.253965D-05	-0.140421D-05	0.118359D-04	0.203502D-04
16	0.661050D-05	0.217379D-05	-0.832344D-07	-0.322744D-04	-0.118003D-04
17	0.374118D-05	0.213002D-05	0.327138D-06	-0.608625D-05	0.594416D-07
18	0.581147D-06	0.651949D-06	0.963578D-06	-0.961046D-06	-0.107620D-05
19	-0.291004D-05	-0.183895D-05	-0.880449D-06	0.507932D-05	0.533938D-05
20	0.274463D-05	0.364328D-06	0.269396D-06	-0.160430D-06	0.154530D-06
21	0.792006D-05	0.543545D-05	0.682357D-06	-0.108948D-04	-0.554337D-06
22	0.392784D-06	0.804609D-06	0.185179D-05	-0.739507D-06	-0.175050D-05
23	0.501836D-06	-0.133449D-05	-0.746741D-06	0.162381D-04	0.116658D-04
24	0.925078D-07	0.170820D-06	0.255121D-06	-0.926840D-07	-0.307065D-06
25	0.617905D-05	0.164898D-05	0.129372D-05	-0.595179D-05	-0.115926D-05

26	-0.103070D-04	-0.561901D-05	-0.127590D-05	0.202048D-04	0.452801D-06
27	-0.224514D-05	-0.171949D-05	-0.144774D-05	0.300947D-05	0.245747D-05
28	0.169285D-05	0.506588D-06	0.549830D-06	-0.121702D-04	-0.105767D-04
29	-0.900665D-06	-0.966678D-06	-0.531263D-06	-0.164173D-05	0.992200D-07
30	-0.442374D-05	-0.172711D-05	-0.227800D-06	0.451501D-05	0.175119D-05
31	0.453819D-05	0.171742D-06	0.262194D-06	-0.664157D-05	-0.120440D-05
32	-0.206534D-05	0.165215D-05	0.856895D-06	-0.116875D-04	0.373712D-06
33	0.489549D-05	-0.286721D-05	-0.627999D-05	-0.736975D-04	0.170365D-04
34	-0.343144D-05	0.113937D-05	-0.442228D-06	0.114764D-04	0.156529D-05
35	0.648550D-05	-0.504187D-06	0.905247D-06	-0.128755D-04	-0.293870D-06
36	0.342208D-05	-0.215887D-05	0.160029D-06	-0.814369D-05	-0.504348D-05
37	0.609235D-05	-0.450702D-04	-0.105296D-04	0.394347D-04	0.359699D-04
38	-0.158212D-05	-0.216314D-05	-0.130385D-05	-0.120883D-05	0.299289D-05
39	0.629240D-06	0.340689D-06	-0.620426D-06	-0.977972D-06	-0.355129D-06
40	0.417265D-04	-0.873074D-05	0.255200D-05	0.402116D-04	0.683758D-05
41	-0.784428D-05	-0.431060D-05	0.236238D-05	0.298257D-04	0.913772D-05
42	0.145950D-05	-0.780983D-06	0.271440D-06	0.141933D-05	-0.218476D-06
43	0.230863D-04	-0.187918D-03	-0.446284D-04	0.174762D-03	0.149238D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.463958D-03				
17	0.176402D-05	0.218601D-04			
18	-0.235687D-06	0.259098D-05	0.396598D-05		
19	-0.146679D-04	-0.450092D-05	-0.165290D-05	0.446060D-04	
20	0.107481D-05	0.256140D-05	0.183123D-05	-0.366394D-05	0.184603D-04
21	-0.967138D-05	0.892704D-05	0.117173D-05	-0.276540D-05	-0.282013D-06
22	-0.908059D-06	0.457057D-06	0.187159D-05	-0.182929D-05	-0.480817D-07
23	-0.343809D-04	0.254891D-05	-0.459121D-06	0.192474D-04	0.147871D-05
24	-0.339303D-07	0.269544D-05	0.233850D-05	-0.207394D-05	0.846277D-05
25	-0.653360D-05	0.232112D-05	0.130428D-05	-0.167664D-05	0.119718D-05
26	-0.816368D-05	-0.456020D-05	-0.717093D-06	0.304934D-05	-0.191008D-05
27	-0.395252D-05	-0.590414D-06	-0.110630D-05	0.110093D-05	-0.385200D-06
28	0.624380D-04	0.267854D-05	0.914081D-06	-0.107259D-04	0.159421D-05
29	-0.666956D-05	-0.167109D-05	-0.157898D-05	0.611225D-05	-0.485410D-05
30	-0.509867D-05	-0.183938D-07	-0.260846D-06	0.249925D-05	-0.857922D-06
31	0.150834D-04	0.446777D-05	0.366036D-06	-0.326745D-05	0.198652D-06
32	0.217582D-04	0.182675D-05	0.229248D-05	-0.478742D-05	-0.810637D-05
33	0.118643D-03	0.340377D-04	-0.106420D-04	0.258243D-04	0.426500D-05
34	0.103050D-04	-0.157618D-06	0.151619D-05	0.324784D-05	0.793930D-06
35	-0.905179D-05	-0.680203D-06	-0.198173D-05	-0.471853D-05	-0.628573D-05
36	0.177225D-04	0.410022D-05	0.463491D-06	0.144734D-06	-0.247525D-05

37	-0.119617D-03	-0.591605D-04	-0.503151D-05	0.474929D-04	0.181685D-04
38	-0.674590D-05	-0.199342D-06	-0.121659D-05	0.314655D-05	-0.261738D-05
39	0.832324D-05	0.256718D-05	-0.365795D-06	0.401140D-06	0.574335D-06
40	-0.261484D-03	-0.119949D-04	0.307162D-04	-0.685464D-04	-0.197737D-04
41	0.224708D-04	-0.394539D-05	0.312600D-05	-0.564344D-05	0.348364D-06
42	0.558734D-07	-0.533222D-06	0.683474D-07	0.888974D-06	0.166947D-05
43	-0.489174D-03	-0.249512D-03	-0.218056D-04	0.193916D-03	0.775075D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.106265D-03				
22	0.102292D-04	0.173305D-04			
23	-0.132534D-04	-0.108089D-04	0.213218D-03		
24	0.286441D-05	0.437309D-05	-0.949158D-05	0.408041D-04	
25	0.208159D-04	0.190742D-04	-0.232974D-04	0.318052D-04	0.391142D-03
26	-0.171637D-04	-0.190570D-05	0.238982D-05	-0.680989D-06	-0.363806D-05
27	-0.217093D-05	-0.270350D-05	0.333342D-05	-0.399686D-06	-0.135852D-05
28	-0.156509D-05	0.201391D-05	-0.338084D-04	0.536728D-05	-0.196677D-05
29	-0.314198D-05	-0.100514D-05	0.798635D-06	-0.592906D-05	-0.522349D-05
30	-0.120013D-04	-0.114526D-04	0.314999D-04	-0.118948D-04	-0.558891D-04
31	0.407949D-05	0.290645D-05	-0.130680D-04	0.576549D-05	0.152158D-04
32	0.472462D-05	-0.256750D-05	-0.264470D-06	0.290307D-06	0.407900D-04
33	-0.502268D-05	-0.151115D-04	0.660727D-06	-0.206990D-05	0.169501D-03
34	-0.652810D-05	-0.738892D-06	-0.110945D-04	-0.233209D-05	0.293193D-04
35	-0.550716D-06	0.567352D-06	0.108661D-04	-0.738655D-05	0.130500D-04
36	0.373619D-05	0.356012D-05	-0.189644D-04	0.403087D-05	0.156858D-04
37	-0.191100D-04	-0.421354D-04	0.341241D-04	0.238544D-05	-0.568272D-04
38	-0.223255D-05	0.678308D-06	-0.119125D-05	-0.204840D-05	-0.424247D-05
39	0.300116D-05	0.503660D-06	0.267876D-06	-0.107898D-06	-0.296641D-05
40	0.129067D-03	0.388995D-04	-0.107766D-03	-0.156738D-04	0.434582D-04
41	-0.104808D-05	0.928880D-05	0.188699D-04	0.714834D-05	0.412027D-04
42	0.536082D-06	0.151023D-05	-0.835210D-06	-0.109613D-05	0.837808D-05
43	-0.841442D-04	-0.178707D-03	0.142868D-03	0.274772D-05	-0.245156D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.857637D-04				
27	0.960428D-05	0.145906D-04			
28	-0.165064D-04	-0.601790D-05	0.186896D-03		
29	0.260929D-05	0.340741D-05	-0.844153D-05	0.336838D-04	

30	0.101769D-04	0.936063D-05	-0.155827D-04	0.147482D-04	0.167721D-03
31	-0.223677D-04	-0.152383D-04	0.506611D-04	-0.170783D-04	-0.567282D-04
32	0.355941D-05	0.850972D-05	-0.131022D-04	0.922460D-05	0.107832D-04
33	-0.517465D-04	0.106096D-05	0.922938D-05	-0.308954D-04	-0.202298D-04
34	0.291744D-05	-0.319320D-05	-0.691842D-05	-0.199507D-05	0.657018D-05
35	0.349233D-05	0.111240D-05	-0.642704D-05	0.834811D-05	-0.684647D-05
36	0.123483D-05	0.338271D-05	0.203298D-05	-0.352326D-05	0.107117D-04
37	0.131385D-03	0.204820D-04	0.724096D-04	0.164880D-04	0.355149D-04
38	-0.217977D-05	0.165500D-05	0.338742D-05	0.432083D-05	-0.481052D-05
39	-0.253336D-06	0.258595D-06	0.231860D-06	-0.940393D-06	-0.352813D-05
40	0.215715D-04	-0.876504D-06	-0.720549D-04	-0.137816D-04	0.229954D-04
41	0.133462D-04	-0.735622D-05	-0.890150D-05	-0.371248D-05	0.100783D-04
42	0.214407D-05	-0.466961D-06	-0.228603D-05	-0.767945D-06	0.125608D-05
43	0.535711D-03	0.895522D-04	0.300307D-03	0.665042D-04	0.132652D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.245700D-03				
32	-0.365496D-04	0.140167D-02			
33	0.192630D-04	-0.880926D-04	0.231178D-01		
34	-0.245294D-05	0.143410D-05	0.761218D-03	0.969335D-03	
35	0.353441D-05	0.229109D-03	-0.268002D-03	-0.185022D-04	0.122125D-02
36	0.244329D-05	-0.293696D-04	-0.103955D-03	-0.244900D-04	0.525352D-04
37	-0.241052D-03	0.274857D-03	0.124776D-03	0.154604D-03	-0.652772D-04
38	0.484055D-05	0.113112D-04	-0.232636D-04	-0.190822D-04	0.755830D-04
39	-0.430855D-06	-0.177323D-04	0.340548D-04	0.865555D-05	0.148203D-04
40	0.409171D-04	-0.876841D-04	-0.800197D-03	0.617527D-04	-0.157194D-03
41	-0.120574D-04	0.925526D-04	0.161401D-03	0.302022D-04	-0.132317D-04
42	-0.209224D-05	0.116882D-04	0.289180D-05	0.149324D-04	-0.171227D-05
43	-0.980880D-03	0.112043D-02	0.507746D-03	0.575852D-03	-0.156720D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.879431D-03				
37	-0.154021D-02	0.690078D-01			
38	0.636941D-05	-0.560166D-05	0.141747D-03		
39	0.321091D-04	-0.421831D-03	0.878861D-05	0.668060D-04	
40	0.108739D-04	0.377760D-03	0.546594D-04	0.307412D-04	0.722992D-01
41	0.578588D-05	0.378544D-03	0.889306D-05	-0.559470D-06	0.220199D-02
42	-0.837647D-06	0.125645D-03	-0.138502D-05	-0.435674D-05	0.148283D-03

43 -0.643552D-02 0.286760D+00 0.222647D-04 -0.171721D-02 0.168775D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	0.148883D-02		
42	0.913649D-04	0.786129D-04	
43	0.160524D-02	0.516040D-03	0.119286D+01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.254	1.000			
3	-0.124	-0.082	1.000		
4	0.070	0.171	-0.171	1.000	
5	0.065	0.148	-0.089	0.173	1.000
6	-0.030	-0.040	-0.005	-0.049	-0.023
7	0.007	0.018	0.024	0.004	0.021
8	-0.028	-0.046	0.049	-0.047	-0.027
9	-0.048	-0.027	-0.003	0.022	-0.026
10	0.022	0.024	-0.004	-0.017	0.073
11	0.007	0.001	0.015	0.042	-0.018
12	0.022	0.002	0.031	-0.003	-0.008
13	-0.022	0.019	0.051	-0.023	-0.001
14	0.016	0.032	0.021	0.030	0.013
15	0.022	0.036	-0.034	0.046	0.000
16	0.017	-0.034	0.022	0.020	0.023
17	0.026	0.002	0.015	0.039	0.013
18	0.011	0.024	0.064	-0.005	-0.021
19	0.009	0.060	-0.023	-0.031	-0.014
20	-0.028	0.018	0.016	0.007	0.007
21	-0.001	0.010	0.002	-0.003	0.046
22	0.013	0.014	-0.025	0.015	0.061
23	0.034	0.076	0.016	0.008	-0.050
24	-0.016	-0.006	-0.028	-0.013	0.009
25	-0.061	0.026	-0.040	-0.011	-0.001
26	0.023	-0.013	-0.044	-0.020	0.027
27	-0.025	-0.053	-0.059	-0.020	0.038
28	-0.050	-0.019	-0.002	0.038	-0.017
29	-0.007	-0.016	-0.034	-0.020	0.020
30	0.029	0.026	-0.023	0.001	0.002



31	0.010	0.020	0.021	0.031	0.014
32	-0.019	-0.018	0.056	-0.010	-0.006
33	-0.017	0.018	0.000	0.036	0.003
34	-0.030	-0.085	0.065	-0.055	-0.112
35	-0.033	-0.013	0.065	0.010	0.035
36	0.009	-0.010	0.014	0.028	0.005
37	-0.020	0.012	0.006	-0.008	-0.001
38	0.016	0.002	0.019	-0.022	0.002
39	-0.001	-0.016	0.056	-0.004	0.010
40	-0.001	-0.016	-0.006	0.004	-0.026
41	0.026	-0.020	0.022	-0.021	-0.014
42	-0.004	0.032	0.057	-0.019	-0.046
43	-0.020	0.013	0.006	-0.008	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.214	1.000			
8	0.121	0.002	1.000		
9	-0.095	-0.074	0.084	1.000	
10	-0.017	-0.121	0.002	-0.184	1.000
11	0.007	0.023	0.049	0.048	-0.018
12	-0.010	0.031	0.015	0.034	-0.010
13	-0.002	0.008	0.063	0.035	0.013
14	-0.011	0.023	0.020	-0.003	0.052
15	-0.005	0.020	0.007	-0.023	0.016
16	-0.047	-0.005	-0.016	0.009	-0.022
17	-0.042	0.030	-0.044	0.045	0.005
18	0.003	-0.006	0.021	0.030	0.024
19	0.025	-0.025	0.012	-0.017	0.030
20	-0.026	0.031	-0.013	0.020	-0.017
21	-0.028	0.044	0.029	0.037	0.020
22	-0.002	-0.008	0.032	0.024	0.016
23	0.013	0.015	0.021	0.000	0.022
24	-0.033	0.030	0.002	0.018	-0.026
25	-0.013	0.005	-0.026	0.000	0.017
26	0.019	-0.008	-0.064	0.023	0.010
27	0.008	0.062	-0.042	0.011	0.046
28	0.000	0.043	-0.028	0.008	-0.007
29	-0.015	-0.022	0.009	0.013	0.025
30	0.000	0.014	0.020	-0.018	0.029
31	-0.022	0.035	-0.002	0.031	-0.015

32	-0.043	0.096	-0.087	0.018	0.081
33	-0.037	-0.011	-0.027	0.002	-0.006
34	0.017	-0.003	0.058	0.012	-0.015
35	0.011	0.038	-0.017	-0.009	0.008
36	0.060	0.036	-0.020	0.023	0.033
37	0.037	-0.035	-0.003	-0.059	0.010
38	-0.014	0.071	-0.043	-0.024	0.073
39	-0.014	0.063	0.019	0.033	0.057
40	0.003	-0.003	-0.018	-0.019	0.019
41	0.011	-0.008	0.006	0.028	0.038
42	0.035	0.029	0.046	0.024	-0.039
43	0.039	-0.023	-0.006	-0.059	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.319	1.000			
13	0.089	0.319	1.000		
14	-0.184	-0.180	-0.082	1.000	
15	-0.037	-0.175	-0.172	0.247	1.000
16	0.030	0.031	-0.002	-0.141	-0.121
17	0.078	0.141	0.039	-0.123	0.003
18	0.028	0.101	0.267	-0.045	-0.120
19	-0.042	-0.085	-0.073	0.072	0.177
20	0.062	0.026	0.035	-0.004	0.008
21	0.075	0.163	0.037	-0.100	-0.012
22	0.009	0.060	0.245	-0.017	-0.093
23	0.003	-0.028	-0.028	0.105	0.177
24	0.001	0.008	0.022	-0.001	-0.011
25	0.030	0.026	0.036	-0.028	-0.013
26	-0.108	-0.188	-0.076	0.206	0.011
27	-0.057	-0.140	-0.209	0.074	0.143
28	0.012	0.011	0.022	-0.084	-0.172
29	-0.015	-0.052	-0.051	-0.027	0.004
30	-0.033	-0.041	-0.010	0.033	0.030
31	0.028	0.003	0.009	-0.040	-0.017
32	-0.005	0.014	0.013	-0.029	0.002
33	0.003	-0.006	-0.023	-0.046	0.025
34	-0.011	0.011	-0.008	0.035	0.011
35	0.018	-0.004	0.014	-0.035	-0.002
36	0.011	-0.023	0.003	-0.026	-0.038
37	0.002	-0.053	-0.022	0.014	0.030

38	-0.013	-0.056	-0.060	-0.010	0.056
39	0.008	0.013	-0.042	-0.011	-0.010
40	0.015	-0.010	0.005	0.014	0.006
41	-0.020	-0.035	0.034	0.073	0.052
42	0.016	-0.027	0.017	0.015	-0.005
43	0.002	-0.053	-0.023	0.015	0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.018	1.000			
18	-0.005	0.278	1.000		
19	-0.102	-0.144	-0.124	1.000	
20	0.012	0.128	0.214	-0.128	1.000
21	-0.044	0.185	0.057	-0.040	-0.006
22	-0.010	0.023	0.226	-0.066	-0.003
23	-0.109	0.037	-0.016	0.197	0.024
24	0.000	0.090	0.184	-0.049	0.308
25	-0.015	0.025	0.033	-0.013	0.014
26	-0.041	-0.105	-0.039	0.049	-0.048
27	-0.048	-0.033	-0.145	0.043	-0.023
28	0.212	0.042	0.034	-0.117	0.027
29	-0.053	-0.062	-0.137	0.158	-0.195
30	-0.018	0.000	-0.010	0.029	-0.015
31	0.045	0.061	0.012	-0.031	0.003
32	0.027	0.010	0.031	-0.019	-0.050
33	0.036	0.048	-0.035	0.025	0.007
34	0.015	-0.001	0.024	0.016	0.006
35	-0.012	-0.004	-0.028	-0.020	-0.042
36	0.028	0.030	0.008	0.001	-0.019
37	-0.021	-0.048	-0.010	0.027	0.016
38	-0.026	-0.004	-0.051	0.040	-0.051
39	0.047	0.067	-0.022	0.007	0.016
40	-0.045	-0.010	0.057	-0.038	-0.017
41	0.027	-0.022	0.041	-0.022	0.002
42	0.000	-0.013	0.004	0.015	0.044
43	-0.021	-0.049	-0.010	0.027	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25

21	1.000				
22	0.238	1.000			
23	-0.088	-0.178	1.000		
24	0.043	0.164	-0.102	1.000	
25	0.102	0.232	-0.081	0.252	1.000
26	-0.180	-0.049	0.018	-0.012	-0.020
27	-0.055	-0.170	0.060	-0.016	-0.018
28	-0.011	0.035	-0.169	0.061	-0.007
29	-0.053	-0.042	0.009	-0.160	-0.046
30	-0.090	-0.212	0.167	-0.144	-0.218
31	0.025	0.045	-0.057	0.058	0.049
32	0.012	-0.016	0.000	0.001	0.055
33	-0.003	-0.024	0.000	-0.002	0.056
34	-0.020	-0.006	-0.024	-0.012	0.048
35	-0.002	0.004	0.021	-0.033	0.019
36	0.012	0.029	-0.044	0.021	0.027
37	-0.007	-0.039	0.009	0.001	-0.011
38	-0.018	0.014	-0.007	-0.027	-0.018
39	0.036	0.015	0.002	-0.002	-0.018
40	0.047	0.035	-0.027	-0.009	0.008
41	-0.003	0.058	0.033	0.029	0.054
42	0.006	0.041	-0.006	-0.019	0.048
43	-0.007	-0.039	0.009	0.000	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.272	1.000			
28	-0.130	-0.115	1.000		
29	0.049	0.154	-0.106	1.000	
30	0.085	0.189	-0.088	0.196	1.000
31	-0.154	-0.255	0.236	-0.188	-0.279
32	0.010	0.060	-0.026	0.042	0.022
33	-0.037	0.002	0.004	-0.035	-0.010
34	0.010	-0.027	-0.016	-0.011	0.016
35	0.011	0.008	-0.013	0.041	-0.015
36	0.004	0.030	0.005	-0.020	0.028
37	0.054	0.020	0.020	0.011	0.010
38	-0.020	0.036	0.021	0.063	-0.031
39	-0.003	0.008	0.002	-0.020	-0.033
40	0.009	-0.001	-0.020	-0.009	0.007
41	0.037	-0.050	-0.017	-0.017	0.020

42	0.026	-0.014	-0.019	-0.015	0.011
43	0.053	0.021	0.020	0.010	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.062	1.000			
33	0.008	-0.015	1.000		
34	-0.005	0.001	0.161	1.000	
35	0.006	0.175	-0.050	-0.017	1.000
36	0.005	-0.026	-0.023	-0.027	0.051
37	-0.059	0.028	0.003	0.019	-0.007
38	0.026	0.025	-0.013	-0.051	0.182
39	-0.003	-0.058	0.027	0.034	0.052
40	0.010	-0.009	-0.020	0.007	-0.017
41	-0.020	0.064	0.028	0.025	-0.010
42	-0.015	0.035	0.002	0.054	-0.006
43	-0.057	0.027	0.003	0.017	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.198	1.000			
38	0.018	-0.002	1.000		
39	0.132	-0.196	0.090	1.000	
40	0.001	0.005	0.017	0.014	1.000
41	0.005	0.037	0.019	-0.002	0.212
42	-0.003	0.054	-0.013	-0.060	0.062
43	-0.199	0.999	0.002	-0.192	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.267	1.000	
43	0.038	0.053	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.005	32
200	1.008	38
300	1.006	39
400	1.002	38
500	1.003	36
600	1.004	38
700	1.001	8
800	1.001	10
900	1.004	10
1000	1.003	10

Reduced psychological distress, job control interaction

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	1.000	1.000	1.000	1.000	
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.989
PRESS15	0.990	0.990	0.990	0.990	0.989
DUTIES15	0.991	0.991	0.991	0.991	0.990
PRAFACSQ	1.000	1.000	1.000	1.000	0.990

	Covariance Coverage			
	BULLY15	PRESS15	DUTIES15	PRAFACSQ
BULLY15	0.990			
PRESS15	0.989	0.990		
DUTIES15	0.990	0.990	0.991	
PRAFACSQ	0.990	0.990	0.991	1.000

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318



	58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		2.814	-0.116	1.000	15.06%	2.000	3.000	3.000
	1102.000	1.193	-0.747	5.000	4.45%	3.000	4.000	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	
PRAFACSQ		0.940	2.150	0.002	0.72%	0.220	0.280	0.469
	1113.000	1.309	4.555	5.467	0.36%	0.932	1.171	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 46

#### MODEL RESULTS

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
PHY15		0.161	0.053	0.001	0.052	0.260	*
BULLY15		0.110	0.061	0.031	-0.008	0.237	
DUTIES15		-0.080	0.043	0.034	-0.162	0.009	
PRESS15		-0.046	0.042	0.130	-0.129	0.035	
KES15		0.800	0.093	0.000	0.614	0.983	*

KES15	WITH					
PHY15		0.107	0.014	0.000	0.081	0.136 *
CHOICE15		-0.089	0.018	0.000	-0.125	-0.053 *
BULLY15		0.073	0.013	0.000	0.048	0.099 *
PRESS15		0.062	0.019	0.001	0.026	0.100 *
DUTIES15		-0.073	0.017	0.000	-0.107	-0.041 *
PHY15	WITH					
CHOICE15		-0.088	0.027	0.001	-0.143	-0.036 *
BULLY15		0.040	0.019	0.017	0.003	0.078 *
PRESS15		0.120	0.027	0.000	0.069	0.174 *
DUTIES15		-0.058	0.027	0.015	-0.114	-0.005 *
CHOICE15	WITH					
BULLY15		-0.131	0.026	0.000	-0.181	-0.083 *
PRESS15		-0.180	0.036	0.000	-0.250	-0.112 *
DUTIES15		0.150	0.034	0.000	0.084	0.217 *
BULLY15	WITH					
PRESS15		0.200	0.026	0.000	0.149	0.251 *
DUTIES15		-0.175	0.024	0.000	-0.226	-0.129 *
PRESS15	WITH					
DUTIES15		-0.285	0.034	0.000	-0.354	-0.220 *
Means						
PHY15		0.001	0.025	0.485	-0.048	0.049
KES15		0.001	0.017	0.484	-0.032	0.033
BULLY15		0.002	0.024	0.481	-0.046	0.046
PRESS15		0.001	0.033	0.486	-0.060	0.067
DUTIES15		0.000	0.031	0.497	-0.062	0.061
Variances						
PHY15		0.704	0.030	0.000	0.650	0.764 *
KES15		0.314	0.013	0.000	0.290	0.340 *
CHOICE15		1.141	0.050	0.000	1.048	1.246 *
BULLY15		0.601	0.026	0.000	0.555	0.657 *
PRESS15		1.159	0.050	0.000	1.068	1.266 *
DUTIES15		1.032	0.043	0.000	0.953	1.119 *
PRAFACSQ		0.000	0.000	0.000	0.000	0.000 *
Between Level						
S1	ON					

PRAFAC	0.028	0.049	0.273	-0.070	0.130	
KESCAT16 ON						
PRAFAC	-0.095	0.056	0.048	-0.200	0.015	
CHOICE15	-0.330	0.269	0.098	-0.874	0.198	
PRAFAC WITH						
CHOICE15	0.082	0.076	0.109	-0.055	0.254	
Means						
PRAFAC	-0.192	0.153	0.098	-0.488	0.110	
CHOICE15	2.888	0.062	0.000	2.771	3.017	*
PRAFACSQ	1.381	0.212	0.000	0.970	1.790	*
Intercepts						
S1	0.033	0.051	0.257	-0.063	0.135	
Thresholds						
KESCAT16\$1	-1.395	0.764	0.033	-2.927	0.130	
Variances						
PRAFAC	1.346	0.263	0.000	0.957	1.999	*
CHOICE15	0.097	0.030	0.000	0.056	0.174	*
PRAFACSQ	2.540	0.520	0.000	1.769	3.814	*
Residual Variances						
KESCAT16	0.016	0.029	0.000	0.001	0.103	*
S1	0.013	0.018	0.000	0.001	0.070	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	

#### Within-Level Standardized Estimates Averaged Over Clusters

S1   KESCAT16 ON						
CHOICE15	0.027	0.044	0.269	-0.057	0.115	
KESCAT16 ON						

PHY15	0.118	0.038	0.000	0.042	0.193	*
BULLY15	0.074	0.041	0.031	-0.005	0.157	
DUTIES15	-0.071	0.039	0.032	-0.148	0.004	
PRESS15	-0.043	0.039	0.130	-0.120	0.032	
KES15	0.393	0.039	0.000	0.312	0.465	*
KES15 WITH						
PHY15	0.228	0.028	0.000	0.173	0.283	*
CHOICE15	-0.148	0.029	0.000	-0.205	-0.089	*
BULLY15	0.168	0.029	0.000	0.110	0.222	*
PRESS15	0.104	0.031	0.001	0.046	0.163	*
DUTIES15	-0.129	0.029	0.000	-0.187	-0.072	*
PHY15 WITH						
CHOICE15	-0.099	0.030	0.001	-0.157	-0.040	*
BULLY15	0.061	0.030	0.022	0.002	0.117	*
PRESS15	0.133	0.030	0.000	0.074	0.190	*
DUTIES15	-0.068	0.031	0.013	-0.130	-0.008	*
CHOICE15 WITH						
BULLY15	-0.158	0.029	0.000	-0.217	-0.100	*
PRESS15	-0.155	0.030	0.000	-0.215	-0.097	*
DUTIES15	0.138	0.030	0.000	0.077	0.196	*
BULLY15 WITH						
PRESS15	0.239	0.029	0.000	0.181	0.294	*
DUTIES15	-0.222	0.029	0.000	-0.278	-0.166	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.314	-0.205	*
Means						
PHY15	0.000	0.030	0.492	-0.058	0.063	
KES15	0.001	0.030	0.495	-0.056	0.061	
BULLY15	0.002	0.031	0.481	-0.059	0.061	
PRESS15	0.001	0.030	0.492	-0.059	0.062	
DUTIES15	0.000	0.030	0.495	-0.060	0.059	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1	ON					
PRAFAC		0.277	0.407	0.273	-0.658	0.889
KESCAT16	ON					
PRAFAC		-0.484	0.260	0.048	-0.902	0.079
CHOICE15		-0.475	0.315	0.098	-0.930	0.259
PRAFAC	WITH					
CHOICE15		0.236	0.182	0.109	-0.145	0.562
Means						
PRAFAC		-0.165	0.130	0.098	-0.413	0.093
CHOICE15		9.226	1.337	0.000	6.926	12.206 *
PRAFACSQ		0.869	0.153	0.000	0.577	1.157 *
Intercepts						
S1		0.245	0.552	0.257	-0.638	1.578
Variances						
PRAFAC		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
PRAFACSQ		1.000	0.000	0.000	1.000	1.000
Residual Variances						
KESCAT16		0.311	0.246	0.000	0.020	0.896 *
S1		0.874	0.228	0.000	0.197	1.000 *

# R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.233	0.036	0.000	0.167	0.306

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.689	0.246	0.000	0.104	0.980

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.126	0.228	0.000	0.000	0.803

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU					
	KESCAT16				
	<hr/>				
	0				
NU					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0	0	0	0	0
NU					
	PRESS15	DUTIES15	PRAFACSQ		
	<hr/>	<hr/>	<hr/>		
	0	0	0		
LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0
PRAFACSQ	0	0

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

THETA

	PRESS15	DUTIES15	PRAFACSQ
PRESS15	0		
DUTIES15	0	0	
PRAFACSQ	0	0	1

ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	2	3	0	4

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>6</u>

BETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>0</u>	<u>9</u>
KESCAT16	0	0	0	0
PHY15	0	0	0	0
KES15	0	0	0	0
CHOICE15	0	0	0	0
BULLY15	0	0	0	0
PRESS15	0	0	0	0
DUTIES15	0	0	0	0

BETA	
PRESS15	DUTIES15
<u>10</u>	<u>11</u>
KESCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>12</u>	<u>14</u>	<u>17</u>	<u>21</u>
KESCAT16	0	12	17	21
PHY15	0	13	20	25
KES15	0	14	23	28
CHOICE15	0	15	24	29
BULLY15	0	16	25	30
PRESS15	0	17	26	
DUTIES15	0	18	27	

PSI	
PRESS15	DUTIES15



PRESS15	<u>26</u>	
DUTIES15	31	32

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
KESCAT16	
<u>46</u>	

NU	KESCAT16	PRAFAC	CHOICE15	PRAFACSQ
	<u>0</u>	<u>0</u>	<u>0</u>	<u>33</u>

LAMBDA				
S1	KESCAT16	PRAFAC	CHOICE15	
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0
PRAFACSQ	0	0	0	0

THETA				
KESCAT16	PRAFAC	CHOICE15	PRAFACSQ	
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
PRAFAC	0	0	0	
CHOICE15	0	0	0	
PRAFACSQ	0	0	0	34

ALPHA				
S1	KESCAT16	PRAFAC	CHOICE15	
<u>35</u>	<u>0</u>	<u>36</u>	<u>37</u>	

BETA				
	S1	KESCAT16	PRAFAC	CHOICE15
S1	<u>0</u>	<u>0</u>	<u>38</u>	<u>0</u>
KESCAT16	0	0	39	40
PRAFAC	0	0	0	0
CHOICE15	0	0	0	0

PSI				
	S1	KESCAT16	PRAFAC	CHOICE15
S1	<u>41</u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	42		
PRAFAC	0	0	43	
CHOICE15	0	0	44	45

STARTING VALUES FOR WITHIN

TAU	
	KESCAT16
	<u>0.000</u>

NU					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU		
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>
		<u>0.000</u>

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000

KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000
PRAFACSQ	0.000	0.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15	PRAFACSQ
PRESS15	0.000		
DUTIES15	0.000	0.000	
PRAFACSQ	0.000	0.000	0.654

ALPHA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
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	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
ALPHA					
PRESS15		DUTIES15			
	<u>0.000</u>	<u>0.000</u>			
BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
BETA					
PRESS15		DUTIES15			
KESCAT16	<u>0.000</u>	<u>0.000</u>			
PHY15	0.000	0.000			
KES15	0.000	0.000			
CHOICE15	0.000	0.000			
BULLY15	0.000	0.000			
PRESS15	0.000	0.000			
DUTIES15	0.000	0.000			
PSI					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.351</u>	<u>0.157</u>	<u>0.597</u>	<u>0.301</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	
DUTIES15	0.000	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>-0.352</u>

NU	KESCAT16	PRAFAC	CHOICE15	PRAFACSQ
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.940</u>

LAMBDA				
S1		KESCAT16	PRAFAC	CHOICE15
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	1.000
PRAFACSQ	0.000	0.000	0.000	0.000

THETA				
	KESCAT16	PRAFAC	CHOICE15	PRAFACSQ
KESCAT16	<u>0.000</u>			
PRAFAC	0.000	<u>0.000</u>		
CHOICE15	0.000	0.000	<u>0.000</u>	
PRAFACSQ	0.000	0.000	0.000	<u>0.654</u>

ALPHA				
S1		KESCAT16	PRAFAC	CHOICE15

	0.000	0.000	-0.033	2.814
BETA				
S1		KESCAT16	PRAFAC	CHOICE15
S1	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000

PSI				
S1		KESCAT16	PRAFAC	CHOICE15
S1	1.000			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.469	
CHOICE15	0.000	0.000	0.000	0.597

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~IW(1.000,7)	infinity	infinity	infinity
Parameter 13~IW(0.000,7)	infinity	infinity	infinity
Parameter 14~IW(1.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(1.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity

Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(1.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(1.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(1.000,7)	infinity	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,3)	infinity	infinity	infinity
Parameter 44~IW(0.000,3)	infinity	infinity	infinity
Parameter 45~IW(1.000,3)	infinity	infinity	infinity
Parameter 46~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.957230D-10				
2	-0.664039D-08	0.629228D-03			
3	0.216579D-08	0.884824D-04	0.288158D-03		
4	0.268091D-08	0.304406D-04	0.464397D-04	0.553685D-03	
5	-0.873899D-08	0.106043D-03	0.554349D-04	0.173153D-03	0.107626D-02
6	0.859295D-08	-0.631950D-04	-0.555116D-04	-0.148736D-03	-0.264012D-03
7	0.659960D-08	0.987508D-05	-0.315784D-04	-0.263911D-04	-0.516110D-04
8	-0.225367D-07	0.353103D-04	0.467997D-04	-0.348888D-04	-0.507809D-04
9	0.382378D-08	0.217186D-04	0.147483D-04	-0.418669D-04	-0.289277D-04

10	-0.165376D-07	-0.432623D-04	0.159394D-04	-0.108233D-04	0.156815D-04
11	0.722984D-08	0.150407D-04	0.304700D-04	-0.153495D-05	0.545237D-04
12	-0.110998D-07	-0.291711D-05	0.527558D-05	0.566987D-04	0.434813D-04
13	-0.390960D-08	-0.375848D-05	0.698753D-05	0.544207D-05	0.367376D-05
14	0.351222D-09	0.564632D-05	-0.949084D-05	0.841332D-05	-0.693969D-05
15	-0.154089D-08	0.129351D-04	-0.238419D-04	-0.261034D-04	-0.152895D-04
16	-0.471352D-08	0.220481D-04	0.118158D-04	0.100847D-04	0.585724D-05
17	-0.721229D-08	-0.361154D-04	-0.387579D-04	-0.773781D-05	-0.378020D-04
18	-0.396381D-08	0.318483D-04	0.774566D-05	0.126678D-04	0.173877D-05
19	0.163541D-08	0.452549D-05	-0.997841D-05	-0.313943D-05	-0.832630D-05
20	0.124034D-08	-0.770210D-05	0.192945D-04	0.116270D-04	0.177790D-04
21	-0.538454D-08	0.698914D-05	0.839061D-05	0.598975D-05	0.106411D-04
22	-0.105015D-08	0.653039D-05	0.418219D-05	0.137086D-04	0.202542D-05
23	-0.228891D-09	-0.622413D-05	0.109590D-04	0.120152D-04	-0.977892D-05
24	-0.358596D-08	0.540271D-04	0.293784D-04	-0.136387D-04	-0.362993D-04
25	-0.357271D-08	0.183002D-04	-0.802836D-05	0.199816D-04	0.234143D-04
26	-0.139941D-07	0.218698D-04	-0.330844D-04	0.647755D-05	0.167317D-04
27	0.956986D-08	0.145112D-04	-0.117135D-04	-0.252073D-04	-0.384813D-04
28	0.518375D-09	0.390253D-05	-0.263267D-05	0.158768D-05	0.191530D-04
29	-0.892394D-08	-0.183689D-04	-0.182325D-05	0.440206D-04	0.220734D-04
30	0.122756D-08	-0.556039D-05	-0.945735D-05	-0.112605D-04	0.253322D-04
31	0.479605D-09	-0.107433D-04	0.176254D-04	0.546848D-05	0.352628D-05
32	-0.166202D-07	-0.108479D-04	-0.550899D-05	0.182403D-04	-0.376488D-04
33	-0.851971D-07	0.288355D-04	-0.313782D-04	-0.905323D-05	0.785167D-04
34	-0.210344D-06	0.550648D-04	-0.700037D-05	0.428667D-04	0.352089D-03
35	-0.245944D-07	-0.505615D-04	0.794157D-05	0.348442D-05	0.429611D-05
36	-0.482900D-07	0.453308D-04	0.334686D-04	-0.152476D-03	-0.140507D-03
37	-0.272394D-08	-0.165860D-04	-0.392947D-04	-0.148059D-03	-0.132559D-03
38	-0.109833D-07	0.133315D-05	-0.255180D-04	-0.144854D-04	-0.163166D-04
39	0.159462D-07	0.174864D-04	0.201073D-05	0.369440D-04	-0.321390D-04
40	0.371327D-08	0.487440D-04	0.569121D-04	-0.518513D-04	-0.446872D-03
41	0.941224D-09	-0.993372D-06	0.932767D-05	-0.127134D-04	-0.192305D-04
42	-0.902892D-08	-0.180286D-05	0.881685D-06	-0.227899D-04	0.375172D-05
43	-0.318534D-07	0.292605D-04	-0.179618D-03	-0.134983D-03	0.421036D-03
44	-0.126902D-07	-0.543234D-04	-0.406255D-04	0.788020D-05	-0.492678D-04
45	-0.684764D-08	0.139255D-04	0.730140D-05	-0.250800D-05	-0.280589D-04
46	0.218793D-07	0.143410D-03	0.151942D-03	-0.108002D-03	-0.115784D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.955064D-03				
7	0.405905D-04	0.275479D-02			



8	-0.439131D-04	-0.363649D-03	0.873635D-02		
9	0.132038D-04	0.154250D-03	0.885664D-05	0.376425D-02	
10	0.322234D-04	-0.297295D-03	-0.289373D-03	-0.401455D-03	0.178594D-02
11	-0.332474D-04	-0.334410D-04	0.158616D-03	0.340152D-03	0.321242D-03
12	-0.258797D-04	0.333018D-04	-0.163353D-03	0.653735D-05	-0.857466D-05
13	0.638233D-06	-0.203628D-04	-0.317145D-04	-0.370922D-04	0.139521D-04
14	0.158355D-04	0.247858D-04	0.299656D-04	0.164193D-04	0.712699D-05
15	-0.192248D-04	0.234142D-05	0.133292D-04	-0.414858D-04	0.321429D-04
16	-0.272571D-04	0.479490D-04	0.398896D-06	-0.162027D-05	-0.227654D-04
17	0.161630D-04	-0.125062D-04	0.284563D-03	0.503845D-04	0.578429D-04
18	0.228978D-04	-0.270929D-04	0.268032D-04	-0.277775D-05	-0.171694D-04
19	0.104333D-04	-0.420271D-04	-0.129351D-04	0.224136D-04	0.847752D-05
20	0.272783D-05	0.919851D-04	-0.845971D-04	0.424997D-04	-0.215633D-04
21	0.210401D-04	-0.808373D-05	-0.225336D-04	-0.126939D-04	0.472623D-05
22	-0.588912D-05	0.394658D-06	-0.103114D-03	-0.761028D-05	-0.470299D-04
23	-0.130468D-04	-0.379493D-04	-0.177893D-04	0.408308D-04	0.546094D-05
24	0.835859D-05	0.516115D-04	0.161103D-03	0.720585D-05	-0.615283D-04
25	-0.799661D-06	-0.252542D-04	-0.335590D-04	0.435956D-05	0.925254D-05
26	0.935847D-05	-0.998678D-04	-0.178351D-03	-0.348450D-04	-0.839035D-04
27	0.311264D-05	0.617248D-05	0.124686D-04	-0.137709D-04	0.351752D-04
28	0.263159D-05	0.348339D-05	-0.100958D-04	-0.377517D-04	0.115387D-04
29	-0.131728D-04	-0.217298D-04	-0.461449D-04	-0.256159D-05	0.519544D-04
30	0.157999D-04	0.274244D-04	-0.754695D-05	0.341741D-04	0.543950D-04
31	0.286131D-04	0.110875D-04	0.773851D-04	0.402016D-04	0.812682D-04
32	-0.729522D-04	0.169729D-04	-0.145860D-04	-0.155718D-04	-0.550018D-04
33	-0.186574D-03	0.279297D-03	0.402305D-03	-0.136216D-04	0.246773D-04
34	-0.148941D-03	-0.769407D-03	0.923388D-03	0.256001D-03	0.279617D-03
35	-0.313029D-04	0.153199D-03	0.315573D-03	0.275655D-03	0.178767D-03
36	0.103274D-03	0.267538D-03	0.181084D-03	0.117821D-03	0.323245D-03
37	0.114851D-03	0.866581D-04	-0.177605D-03	0.140021D-03	-0.147930D-04
38	-0.162973D-04	0.487622D-04	-0.119120D-03	-0.359271D-04	0.712204D-04
39	-0.285358D-05	0.230196D-04	0.435064D-04	-0.128013D-03	-0.214925D-03
40	0.465477D-04	-0.245511D-03	0.462980D-03	0.102198D-02	0.622064D-03
41	0.620363D-05	0.684293D-04	0.132672D-03	0.118089D-05	-0.167433D-04
42	0.979955D-05	0.958034D-04	0.283134D-03	-0.403368D-04	0.719478D-04
43	0.146503D-03	0.345850D-03	-0.137368D-02	-0.759844D-03	-0.154899D-03
44	0.524919D-04	0.146388D-03	-0.586626D-04	-0.277852D-04	-0.948205D-06
45	0.253969D-06	0.642290D-04	-0.435068D-04	0.273057D-04	0.107741D-04
46	0.107154D-03	-0.808939D-03	0.423965D-03	0.265743D-02	0.181802D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

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11	0.186092D-02				
12	0.269582D-05	0.894891D-03			
13	-0.322080D-04	0.121150D-03	0.200756D-03		
14	0.707724D-05	0.215400D-04	0.607770D-04	0.174564D-03	
15	-0.218380D-04	-0.935001D-04	-0.479233D-04	-0.120248D-04	0.740938D-03
16	0.250089D-04	-0.219881D-04	-0.309143D-04	-0.535273D-04	0.132453D-03
17	0.221277D-04	-0.441322D-04	-0.177391D-04	0.104688D-04	-0.200954D-03
18	0.547313D-05	0.422593D-04	0.533218D-04	0.133223D-04	-0.782100D-04
19	-0.144563D-05	0.199150D-04	0.184623D-04	0.410720D-04	-0.144561D-04
20	0.112354D-05	0.725023D-05	0.326066D-06	-0.203824D-04	0.239059D-04
21	-0.263537D-04	0.613971D-05	-0.724646D-05	-0.887036D-05	-0.108669D-04
22	-0.805538D-05	0.123938D-03	0.542573D-04	0.230110D-04	-0.129075D-03
23	0.229192D-05	0.434399D-04	0.373793D-04	0.431344D-04	-0.214111D-04
24	0.164200D-04	-0.188416D-04	-0.102173D-05	-0.649927D-05	0.161134D-03
25	0.122303D-04	0.240655D-04	0.595827D-05	0.110878D-04	-0.782506D-05
26	-0.371387D-04	0.846653D-04	0.764486D-05	0.226899D-04	-0.599018D-04
27	0.199667D-04	-0.113639D-03	-0.569437D-04	-0.226913D-04	0.112144D-03
28	0.255419D-04	-0.110256D-04	-0.227307D-04	-0.433181D-04	0.143356D-04
29	-0.636039D-04	0.208214D-04	-0.769378D-05	-0.873075D-05	-0.931971D-04
30	0.141225D-04	-0.132485D-05	-0.105717D-04	-0.149462D-04	0.833642D-05
31	0.318538D-04	0.175401D-04	0.817789D-05	-0.181564D-04	0.138701D-04
32	-0.106585D-03	0.198479D-04	0.531307D-06	0.363333D-05	-0.178968D-04
33	-0.370368D-03	0.105280D-03	-0.181922D-04	0.245803D-04	0.111038D-03
34	0.629621D-04	-0.240197D-04	-0.844492D-04	0.768057D-04	0.472060D-03
35	-0.151149D-03	-0.381868D-05	-0.563640D-05	0.868617D-05	0.367844D-04
36	-0.344682D-03	-0.409026D-04	-0.655839D-04	-0.477419D-04	0.614697D-04
37	0.373147D-04	-0.521690D-04	-0.107210D-04	0.169928D-04	0.149027D-03
38	-0.244329D-04	0.198491D-04	-0.285852D-05	0.320009D-04	-0.504694D-05
39	-0.424462D-04	-0.706243D-05	0.312439D-04	0.130613D-04	-0.125312D-03
40	0.553672D-03	0.879134D-04	-0.943416D-04	0.103864D-03	-0.128524D-03
41	-0.476285D-04	-0.280665D-04	-0.110756D-04	0.254408D-05	0.197044D-04
42	0.733719D-04	-0.854269D-05	-0.261619D-04	0.323983D-05	0.300076D-04
43	0.363826D-04	0.550379D-03	0.584485D-04	-0.297826D-04	-0.330897D-03
44	-0.209675D-04	0.235879D-04	0.695345D-04	-0.343090D-05	-0.526608D-04
45	-0.269459D-04	0.238612D-04	0.191169D-04	-0.176967D-05	0.210153D-04
46	0.170436D-02	0.331881D-03	-0.260318D-03	0.305658D-03	-0.359828D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.334950D-03				
17	-0.228593D-03	0.252320D-02			
18	-0.646462D-05	0.804519D-05	0.376772D-03		

19	-0.418968D-04	0.188922D-04	0.657365D-04	0.172243D-03	
20	0.665902D-04	-0.289590D-03	-0.487249D-04	-0.578132D-04	0.650572D-03
21	-0.690917D-05	0.132560D-04	0.607484D-04	0.715329D-04	-0.145311D-03
22	-0.221195D-04	0.200653D-04	0.122040D-03	0.281525D-04	-0.148566D-05
23	-0.406171D-04	0.279272D-04	0.354457D-04	0.634553D-04	-0.145889D-04
24	0.804685D-04	-0.396915D-03	-0.451970D-04	-0.330225D-04	0.226093D-03
25	-0.168137D-04	0.309693D-04	0.111109D-03	0.497539D-04	-0.131322D-03
26	-0.138115D-04	0.406952D-04	0.114575D-03	0.478887D-04	-0.361931D-04
27	0.527478D-04	-0.217205D-04	-0.119321D-03	-0.364979D-04	0.228277D-04
28	0.504688D-04	-0.559464D-04	-0.113362D-04	-0.507834D-04	0.139289D-04
29	-0.868179D-04	0.212110D-03	0.112207D-04	0.185194D-04	-0.178121D-03
30	0.164042D-04	-0.261965D-05	-0.615111D-04	-0.564071D-04	0.110521D-03
31	0.341681D-04	0.169958D-04	-0.164708D-04	-0.289333D-04	0.676667D-04
32	-0.233778D-04	0.420369D-04	0.345635D-04	0.239980D-04	-0.462815D-04
33	0.145835D-03	-0.330900D-03	-0.305941D-04	-0.264240D-04	-0.136985D-04
34	0.558000D-03	0.657472D-03	0.168146D-03	0.452760D-04	0.334590D-03
35	-0.152989D-04	-0.151357D-04	0.691208D-05	-0.129489D-04	0.146987D-04
36	0.713414D-04	-0.125544D-05	0.433348D-04	0.639554D-04	-0.136954D-04
37	0.355249D-04	-0.661569D-04	0.296496D-04	0.361207D-04	-0.479972D-04
38	0.180465D-04	0.100023D-03	0.131213D-04	-0.107820D-04	-0.374467D-04
39	-0.116773D-04	0.137022D-03	0.227822D-04	0.364106D-04	-0.285756D-04
40	-0.196645D-03	-0.189485D-03	0.170993D-03	0.735791D-05	-0.158952D-03
41	0.194507D-04	0.856783D-05	0.604557D-05	-0.273804D-05	0.885848D-05
42	0.225497D-04	-0.419044D-05	0.122168D-04	-0.189283D-04	-0.330107D-04
43	0.227170D-04	0.402528D-03	0.645352D-04	0.123266D-04	-0.123700D-03
44	0.293348D-04	-0.337895D-04	0.375149D-04	0.784878D-05	0.579231D-05
45	-0.418305D-05	-0.476157D-04	-0.990509D-05	0.100662D-04	0.128873D-04
46	-0.563057D-03	-0.634270D-03	0.461498D-03	0.381934D-04	-0.442660D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.669561D-03				
22	0.368747D-04	0.740072D-03			
23	0.863324D-05	0.120335D-03	0.350610D-03		
24	-0.526491D-04	-0.128147D-03	-0.115858D-03	0.130056D-02	
25	0.245097D-03	0.884866D-04	0.948820D-04	-0.158958D-03	0.690267D-03
26	0.917425D-04	0.282566D-03	0.142889D-03	-0.388922D-03	0.422829D-03
27	-0.396950D-04	-0.218266D-03	-0.346210D-04	0.723032D-04	-0.650132D-04
28	-0.225303D-04	-0.331614D-04	-0.783762D-04	0.244104D-04	-0.324998D-04
29	0.494517D-04	0.574363D-04	0.249030D-04	-0.330549D-03	0.596335D-04
30	-0.184457D-03	-0.376754D-04	-0.400788D-04	0.595545D-04	-0.199012D-03
31	-0.654725D-04	-0.106487D-03	-0.113101D-03	0.184105D-03	-0.249419D-03

32	0.329576D-04	0.362660D-04	0.575388D-04	-0.488007D-04	0.297848D-04
33	-0.189913D-03	-0.137863D-03	-0.454061D-04	0.374174D-03	-0.167563D-03
34	0.420047D-03	-0.199192D-03	-0.439356D-03	0.496358D-03	0.437901D-04
35	0.210325D-04	-0.130104D-04	-0.443698D-04	0.424705D-04	0.172297D-04
36	0.252348D-03	-0.413722D-04	-0.771859D-04	0.392143D-03	0.293633D-03
37	0.176087D-04	-0.814397D-05	-0.410257D-04	0.161621D-03	0.847897D-05
38	0.277230D-05	0.148259D-04	0.218793D-04	-0.200737D-04	0.467596D-05
39	-0.957996D-05	0.180894D-04	0.532939D-05	-0.298962D-04	-0.137429D-04
40	0.107501D-03	0.250946D-03	-0.731867D-04	0.189811D-03	0.555330D-04
41	0.103681D-04	-0.222172D-04	-0.127021D-04	0.183291D-04	-0.312151D-05
42	0.106560D-04	0.101128D-05	0.942245D-06	-0.236079D-04	0.184331D-04
43	0.249422D-03	0.290421D-03	0.162331D-04	-0.189551D-03	-0.100927D-03
44	-0.161904D-04	0.830587D-04	0.234470D-04	-0.112329D-03	-0.798870D-05
45	0.147017D-04	0.189461D-05	0.155902D-05	0.728031D-05	-0.565268D-04
46	0.290933D-03	0.754583D-03	-0.178775D-03	0.460916D-03	0.163465D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.247177D-02				
27	-0.125471D-03	0.729007D-03			
28	-0.410402D-04	0.127854D-03	0.282436D-03		
29	0.100043D-03	-0.132379D-03	-0.985677D-04	0.112464D-02	
30	-0.147570D-03	0.106218D-03	0.935383D-04	-0.157134D-03	0.594801D-03
31	-0.626073D-03	0.166643D-03	0.946770D-04	-0.211731D-03	0.301362D-03
32	0.151938D-03	-0.148725D-03	-0.134952D-03	0.224274D-03	-0.341932D-03
33	-0.428173D-03	-0.683280D-04	0.869983D-04	0.167820D-03	0.138267D-03
34	-0.729216D-03	0.162032D-03	0.237213D-04	-0.128459D-03	0.201051D-03
35	-0.335296D-04	-0.158138D-04	-0.178091D-04	-0.559333D-04	-0.865806D-05
36	-0.183398D-03	0.113590D-03	-0.286269D-05	0.760895D-04	0.275783D-04
37	-0.781005D-04	0.132245D-04	-0.482413D-04	-0.192459D-04	-0.155817D-04
38	0.213437D-04	0.264703D-04	-0.258499D-04	-0.788291D-05	-0.467466D-05
39	-0.322680D-06	-0.662582D-04	0.640489D-06	-0.457322D-04	0.157156D-04
40	-0.233715D-03	-0.132556D-03	-0.124860D-03	0.495204D-03	0.176828D-04
41	-0.183173D-04	0.330770D-04	0.504674D-05	-0.321505D-05	0.611489D-05
42	-0.673145D-04	-0.134196D-04	0.129609D-05	0.348471D-04	0.642281D-05
43	-0.109835D-03	-0.192090D-03	-0.629674D-04	-0.252842D-03	-0.519384D-04
44	0.197800D-03	0.407013D-05	0.123786D-04	0.346082D-04	-0.171145D-04
45	-0.190514D-04	-0.542421D-05	0.409420D-05	0.308046D-04	0.201740D-04
46	-0.676611D-03	-0.362919D-03	-0.366230D-03	0.148113D-02	0.442504D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.117682D-02				
32	-0.533645D-03	0.188830D-02			
33	0.155636D-03	0.827053D-04	0.448678D-01		
34	0.348264D-03	0.392861D-03	0.340469D-02	0.269790D+00	
35	-0.521914D-05	-0.569046D-04	-0.167237D-03	0.586188D-03	0.262704D-02
36	0.232891D-03	-0.937830D-04	0.741202D-03	0.317991D-03	0.296315D-03
37	-0.349865D-04	0.661572D-04	0.381174D-04	-0.527958D-03	0.179574D-03
38	-0.133579D-04	0.332876D-04	-0.409117D-04	0.234355D-03	0.112465D-03
39	0.567611D-04	0.566280D-05	0.290306D-03	-0.555699D-03	0.153012D-03
40	0.515531D-04	-0.979940D-04	-0.104629D-02	-0.481495D-02	-0.114861D-02
41	0.236419D-04	-0.129594D-04	0.133566D-03	-0.268468D-03	0.205646D-04
42	-0.128962D-04	0.212556D-04	0.151671D-03	-0.311920D-03	-0.331819D-04
43	-0.973799D-04	0.330058D-03	-0.150816D-02	-0.258560D-02	-0.243932D-03
44	0.252585D-05	0.105211D-03	-0.166623D-03	-0.612560D-03	-0.118219D-03
45	0.367956D-05	0.446574D-04	-0.880989D-04	0.139054D-03	0.539782D-04
46	0.155467D-03	-0.193761D-03	-0.306763D-02	-0.134536D-01	-0.327398D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.234002D-01				
37	0.159050D-02	0.387307D-02			
38	-0.229365D-03	0.600923D-04	0.243347D-02		
39	-0.442812D-04	0.547536D-04	-0.806527D-04	0.318799D-02	
40	-0.466958D-03	0.662226D-03	-0.108503D-02	-0.445418D-02	0.720937D-01
41	0.231125D-04	0.169421D-04	0.695982D-04	-0.714889D-04	0.286272D-04
42	-0.762682D-04	0.848191D-04	0.197695D-04	-0.210418D-03	0.912735D-03
43	-0.273758D-03	-0.124174D-03	0.325285D-03	-0.116603D-03	-0.104203D-02
44	-0.151112D-03	-0.196406D-03	0.272566D-03	0.635754D-03	-0.159271D-02
45	-0.629355D-04	0.228952D-03	0.330617D-04	0.819796D-04	0.106381D-03
46	-0.160942D-02	0.149626D-02	-0.312689D-02	-0.129124D-01	0.204419D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.336097D-03				
42	0.441370D-04	0.818420D-03			
43	0.298436D-04	0.580674D-04	0.693152D-01		
44	-0.224047D-04	-0.365963D-04	0.509202D-02	0.583473D-02	
45	0.709436D-05	-0.273283D-04	0.449573D-03	0.844219D-03	0.914010D-03

46 0.121081D-04 0.246325D-02 -0.312642D-02 -0.469970D-02 0.234949D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

46

46 0.582729D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	-0.027	1.000			
3	0.013	0.208	1.000		
4	0.012	0.052	0.116	1.000	
5	-0.027	0.129	0.100	0.224	1.000
6	0.028	-0.082	-0.106	-0.205	-0.260
7	0.013	0.008	-0.035	-0.021	-0.030
8	-0.025	0.015	0.029	-0.016	-0.017
9	0.006	0.014	0.014	-0.029	-0.014
10	-0.040	-0.041	0.022	-0.011	0.011
11	0.017	0.014	0.042	-0.002	0.039
12	-0.038	-0.004	0.010	0.081	0.044
13	-0.028	-0.011	0.029	0.016	0.008
14	0.003	0.017	-0.042	0.027	-0.016
15	-0.006	0.019	-0.052	-0.041	-0.017
16	-0.026	0.048	0.038	0.023	0.010
17	-0.015	-0.029	-0.045	-0.007	-0.023
18	-0.021	0.065	0.024	0.028	0.003
19	0.013	0.014	-0.045	-0.010	-0.019
20	0.005	-0.012	0.045	0.019	0.021
21	-0.021	0.011	0.019	0.010	0.013
22	-0.004	0.010	0.009	0.021	0.002
23	-0.001	-0.013	0.034	0.027	-0.016
24	-0.010	0.060	0.048	-0.016	-0.031
25	-0.014	0.028	-0.018	0.032	0.027
26	-0.029	0.018	-0.039	0.006	0.010
27	0.036	0.021	-0.026	-0.040	-0.043
28	0.003	0.009	-0.009	0.004	0.035
29	-0.027	-0.022	-0.003	0.056	0.020
30	0.005	-0.009	-0.023	-0.020	0.032
31	0.001	-0.012	0.030	0.007	0.003
32	-0.039	-0.010	-0.007	0.018	-0.026

33	-0.041	0.005	-0.009	-0.002	0.011
34	-0.041	0.004	-0.001	0.004	0.021
35	-0.049	-0.039	0.009	0.003	0.003
36	-0.032	0.012	0.013	-0.042	-0.028
37	-0.004	-0.011	-0.037	-0.101	-0.065
38	-0.023	0.001	-0.030	-0.012	-0.010
39	0.029	0.012	0.002	0.028	-0.017
40	0.001	0.007	0.012	-0.008	-0.051
41	0.005	-0.002	0.030	-0.029	-0.032
42	-0.032	-0.003	0.002	-0.034	0.004
43	-0.012	0.004	-0.040	-0.022	0.049
44	-0.017	-0.028	-0.031	0.004	-0.020
45	-0.023	0.018	0.014	-0.004	-0.028
46	0.003	0.007	0.012	-0.006	-0.046

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	0.025	1.000			
8	-0.015	-0.074	1.000		
9	0.007	0.048	0.002	1.000	
10	0.025	-0.134	-0.073	-0.155	1.000
11	-0.025	-0.015	0.039	0.129	0.176
12	-0.028	0.021	-0.058	0.004	-0.007
13	0.001	-0.027	-0.024	-0.043	0.023
14	0.039	0.036	0.024	0.020	0.013
15	-0.023	0.002	0.005	-0.025	0.028
16	-0.048	0.050	0.000	-0.001	-0.029
17	0.010	-0.005	0.061	0.016	0.027
18	0.038	-0.027	0.015	-0.002	-0.021
19	0.026	-0.061	-0.011	0.028	0.015
20	0.003	0.069	-0.035	0.027	-0.020
21	0.026	-0.006	-0.009	-0.008	0.004
22	-0.007	0.000	-0.041	-0.005	-0.041
23	-0.023	-0.039	-0.010	0.036	0.007
24	0.007	0.027	0.048	0.003	-0.040
25	-0.001	-0.018	-0.014	0.003	0.008
26	0.006	-0.038	-0.038	-0.011	-0.040
27	0.004	0.004	0.005	-0.008	0.031
28	0.005	0.004	-0.006	-0.037	0.016
29	-0.013	-0.012	-0.015	-0.001	0.037
30	0.021	0.021	-0.003	0.023	0.053

31	0.027	0.006	0.024	0.019	0.056
32	-0.054	0.007	-0.004	-0.006	-0.030
33	-0.029	0.025	0.020	-0.001	0.003
34	-0.009	-0.028	0.019	0.008	0.013
35	-0.020	0.057	0.066	0.088	0.083
36	0.022	0.033	0.013	0.013	0.050
37	0.060	0.027	-0.031	0.037	-0.006
38	-0.011	0.019	-0.026	-0.012	0.034
39	-0.002	0.008	0.008	-0.037	-0.090
40	0.006	-0.017	0.018	0.062	0.055
41	0.011	0.071	0.077	0.001	-0.022
42	0.011	0.064	0.106	-0.023	0.060
43	0.018	0.025	-0.056	-0.047	-0.014
44	0.022	0.037	-0.008	-0.006	0.000
45	0.000	0.040	-0.015	0.015	0.008
46	0.005	-0.020	0.006	0.057	0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.002	1.000			
13	-0.053	0.286	1.000		
14	0.012	0.054	0.325	1.000	
15	-0.019	-0.115	-0.124	-0.033	1.000
16	0.032	-0.040	-0.119	-0.221	0.266
17	0.010	-0.029	-0.025	0.016	-0.147
18	0.007	0.073	0.194	0.052	-0.148
19	-0.003	0.051	0.099	0.237	-0.040
20	0.001	0.010	0.001	-0.060	0.034
21	-0.024	0.008	-0.020	-0.026	-0.015
22	-0.007	0.152	0.141	0.064	-0.174
23	0.003	0.078	0.141	0.174	-0.042
24	0.011	-0.017	-0.002	-0.014	0.164
25	0.011	0.031	0.016	0.032	-0.011
26	-0.017	0.057	0.011	0.035	-0.044
27	0.017	-0.141	-0.149	-0.064	0.153
28	0.035	-0.022	-0.095	-0.195	0.031
29	-0.044	0.021	-0.016	-0.020	-0.102
30	0.013	-0.002	-0.031	-0.046	0.013
31	0.022	0.017	0.017	-0.040	0.015
32	-0.057	0.015	0.001	0.006	-0.015
33	-0.041	0.017	-0.006	0.009	0.019



34	0.003	-0.002	-0.011	0.011	0.033
35	-0.068	-0.002	-0.008	0.013	0.026
36	-0.052	-0.009	-0.030	-0.024	0.015
37	0.014	-0.028	-0.012	0.021	0.088
38	-0.011	0.013	-0.004	0.049	-0.004
39	-0.017	-0.004	0.039	0.018	-0.082
40	0.048	0.011	-0.025	0.029	-0.018
41	-0.060	-0.051	-0.043	0.011	0.039
42	0.059	-0.010	-0.065	0.009	0.039
43	0.003	0.070	0.016	-0.009	-0.046
44	-0.006	0.010	0.064	-0.003	-0.025
45	-0.021	0.026	0.045	-0.004	0.026
46	0.052	0.015	-0.024	0.030	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	-0.249	1.000			
18	-0.018	0.008	1.000		
19	-0.174	0.029	0.258	1.000	
20	0.143	-0.226	-0.098	-0.173	1.000
21	-0.015	0.010	0.121	0.211	-0.220
22	-0.044	0.015	0.231	0.079	-0.002
23	-0.119	0.030	0.098	0.258	-0.031
24	0.122	-0.219	-0.065	-0.070	0.246
25	-0.035	0.023	0.218	0.144	-0.196
26	-0.015	0.016	0.119	0.073	-0.029
27	0.107	-0.016	-0.228	-0.103	0.033
28	0.164	-0.066	-0.035	-0.230	0.032
29	-0.141	0.126	0.017	0.042	-0.208
30	0.037	-0.002	-0.130	-0.176	0.178
31	0.054	0.010	-0.097	-0.064	0.077
32	-0.029	0.019	0.041	0.042	-0.042
33	0.038	-0.031	-0.007	-0.010	-0.003
34	0.059	0.025	0.017	0.007	0.025
35	-0.016	-0.006	0.007	-0.019	0.011
36	0.025	0.000	0.015	0.032	-0.004
37	0.031	-0.021	0.025	0.044	-0.030
38	0.020	0.040	0.014	-0.017	-0.030
39	-0.011	0.048	0.021	0.049	-0.020
40	-0.040	-0.014	0.033	0.002	-0.023
41	0.058	0.009	0.017	-0.011	0.019

42	0.043	-0.003	0.022	-0.050	-0.045
43	0.005	0.030	0.013	0.004	-0.018
44	0.021	-0.009	0.025	0.008	0.003
45	-0.008	-0.031	-0.017	0.025	0.017
46	-0.040	-0.017	0.031	0.004	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.052	1.000			
23	0.018	0.236	1.000		
24	-0.056	-0.131	-0.172	1.000	
25	0.361	0.124	0.193	-0.168	1.000
26	0.071	0.209	0.153	-0.217	0.324
27	-0.057	-0.297	-0.068	0.074	-0.092
28	-0.052	-0.073	-0.249	0.040	-0.074
29	0.057	0.063	0.040	-0.273	0.068
30	-0.292	-0.057	-0.088	0.068	-0.311
31	-0.074	-0.114	-0.176	0.149	-0.277
32	0.029	0.031	0.071	-0.031	0.026
33	-0.035	-0.024	-0.011	0.049	-0.030
34	0.031	-0.014	-0.045	0.026	0.003
35	0.016	-0.009	-0.046	0.023	0.013
36	0.064	-0.010	-0.027	0.071	0.073
37	0.011	-0.005	-0.035	0.072	0.005
38	0.002	0.011	0.024	-0.011	0.004
39	-0.007	0.012	0.005	-0.015	-0.009
40	0.015	0.034	-0.015	0.020	0.008
41	0.022	-0.045	-0.037	0.028	-0.006
42	0.014	0.001	0.002	-0.023	0.025
43	0.037	0.041	0.003	-0.020	-0.015
44	-0.008	0.040	0.016	-0.041	-0.004
45	0.019	0.002	0.003	0.007	-0.071
46	0.015	0.036	-0.013	0.017	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	-0.093	1.000			
28	-0.049	0.282	1.000		

29	0.060	-0.146	-0.175	1.000	
30	-0.122	0.161	0.228	-0.192	1.000
31	-0.367	0.180	0.164	-0.184	0.360
32	0.070	-0.127	-0.185	0.154	-0.323
33	-0.041	-0.012	0.024	0.024	0.027
34	-0.028	0.012	0.003	-0.007	0.016
35	-0.013	-0.011	-0.021	-0.033	-0.007
36	-0.024	0.028	-0.001	0.015	0.007
37	-0.025	0.008	-0.046	-0.009	-0.010
38	0.009	0.020	-0.031	-0.005	-0.004
39	0.000	-0.043	0.001	-0.024	0.011
40	-0.018	-0.018	-0.028	0.055	0.003
41	-0.020	0.067	0.016	-0.005	0.014
42	-0.047	-0.017	0.003	0.036	0.009
43	-0.008	-0.027	-0.014	-0.029	-0.008
44	0.052	0.002	0.010	0.014	-0.009
45	-0.013	-0.007	0.008	0.030	0.027
46	-0.018	-0.018	-0.029	0.058	0.000

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.358	1.000			
33	0.021	0.009	1.000		
34	0.020	0.017	0.031	1.000	
35	-0.003	-0.026	-0.015	0.022	1.000
36	0.044	-0.014	0.023	0.004	0.038
37	-0.016	0.024	0.003	-0.016	0.056
38	-0.008	0.016	-0.004	0.009	0.044
39	0.029	0.002	0.024	-0.019	0.053
40	0.006	-0.008	-0.018	-0.035	-0.083
41	0.038	-0.016	0.034	-0.028	0.022
42	-0.013	0.017	0.025	-0.021	-0.023
43	-0.011	0.029	-0.027	-0.019	-0.018
44	0.001	0.032	-0.010	-0.015	-0.030
45	0.004	0.034	-0.014	0.009	0.035
46	0.006	-0.006	-0.019	-0.034	-0.084

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40

36	1.000				
37	0.167	1.000			
38	-0.030	0.020	1.000		
39	-0.005	0.016	-0.029	1.000	
40	-0.011	0.040	-0.082	-0.294	1.000
41	0.008	0.015	0.077	-0.069	0.006
42	-0.017	0.048	0.014	-0.130	0.119
43	-0.007	-0.008	0.025	-0.008	-0.015
44	-0.013	-0.041	0.072	0.147	-0.078
45	-0.014	0.122	0.022	0.048	0.013
46	-0.014	0.031	-0.083	-0.300	0.997

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.084	1.000			
43	0.006	0.008	1.000		
44	-0.016	-0.017	0.253	1.000	
45	0.013	-0.032	0.056	0.366	1.000
46	0.001	0.113	-0.016	-0.081	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

46	46
46	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.013	10
200	1.014	28

300	1.010	46
400	1.005	38
500	1.003	34
600	1.003	42
700	1.002	38
800	1.002	42
900	1.002	31
1000	1.003	16

Reduced psychological distress, bullying interaction

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	1.000	1.000	1.000	1.000	
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.989
PRESS15	0.990	0.990	0.990	0.990	0.989
DUTIES15	0.991	0.991	0.991	0.991	0.990

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.990		
PRESS15	0.989	0.990	
DUTIES15	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412

	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		1.426	1.887	1.000	71.96%	1.000	1.000	1.000
	1102.000	0.602	3.132	5.000	0.45%	1.000	2.000	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.159	0.054	0.003	0.051	0.261	*
CHOICE15	0.027	0.041	0.248	-0.050	0.111	
DUTIES15	-0.078	0.045	0.046	-0.162	0.011	
PRESS15	-0.042	0.042	0.153	-0.128	0.039	
KES15	0.803	0.095	0.000	0.625	0.994	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.079	0.134	*
CHOICE15	-0.095	0.018	0.000	-0.133	-0.061	*
BULLY15	0.073	0.013	0.000	0.050	0.100	*



PRESS15	0.062	0.019	0.001	0.028	0.099	*
DUTIES15	-0.073	0.018	0.000	-0.107	-0.037	*
PHY15 WITH						
CHOICE15	-0.098	0.028	0.001	-0.152	-0.043	*
BULLY15	0.041	0.020	0.022	0.002	0.079	*
PRESS15	0.119	0.028	0.000	0.068	0.176	*
DUTIES15	-0.058	0.027	0.015	-0.112	-0.004	*
CHOICE15 WITH						
BULLY15	-0.134	0.026	0.000	-0.187	-0.081	*
PRESS15	-0.196	0.037	0.000	-0.271	-0.124	*
DUTIES15	0.150	0.034	0.000	0.083	0.219	*
BULLY15 WITH						
PRESS15	0.197	0.026	0.000	0.147	0.251	*
DUTIES15	-0.169	0.025	0.000	-0.220	-0.124	*
PRESS15 WITH						
DUTIES15	-0.288	0.034	0.000	-0.355	-0.222	*
Means						
PHY15	-0.001	0.025	0.481	-0.051	0.049	
KES15	0.000	0.017	0.500	-0.031	0.032	
CHOICE15	-0.001	0.033	0.489	-0.067	0.062	
PRESS15	0.000	0.033	0.493	-0.063	0.065	
DUTIES15	-0.001	0.031	0.489	-0.058	0.062	
Variances						
PHY15	0.704	0.030	0.000	0.648	0.765	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.051	0.000	1.097	1.297	*
BULLY15	0.593	0.026	0.000	0.546	0.645	*
PRESS15	1.162	0.049	0.000	1.069	1.263	*
DUTIES15	1.033	0.044	0.000	0.953	1.126	*
Between Level						
S1 ON						
PRAFAC	-0.067	0.089	0.219	-0.230	0.120	
KESCAT16 ON						
PRAFAC	-0.131	0.054	0.007	-0.238	-0.033	*
BULLY15	0.447	0.485	0.176	-0.540	1.404	

PRAFAC WITH BULLY15	0.016	0.053	0.357	-0.080	0.124	
Means						
PRAFAC	-0.194	0.151	0.102	-0.495	0.094	
BULLY15	1.417	0.045	0.000	1.330	1.505	*
Intercepts						
S1	0.161	0.089	0.022	0.004	0.343	*
Thresholds						
KESCAT16\$1	0.166	0.688	0.408	-1.225	1.505	
Variances						
PRAFAC	1.343	0.261	0.000	0.957	2.000	*
BULLY15	0.054	0.015	0.000	0.034	0.092	*
Residual Variances						
KESCAT16	0.018	0.030	0.000	0.000	0.109	*
S1	0.044	0.078	0.000	0.001	0.281	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON BULLY15	0.107	0.052	0.015	0.007	0.209	*
KESCAT16 ON						
PHY15	0.114	0.038	0.003	0.036	0.188	*
CHOICE15	0.027	0.038	0.240	-0.049	0.105	
DUTIES15	-0.068	0.039	0.040	-0.143	0.007	
PRESS15	-0.040	0.038	0.146	-0.116	0.035	
KES15	0.390	0.039	0.000	0.311	0.466	*
KES15 WITH						

PHY15	0.227	0.028	0.000	0.173	0.281	*
CHOICE15	-0.157	0.029	0.000	-0.212	-0.100	*
BULLY15	0.171	0.029	0.000	0.116	0.228	*
PRESS15	0.102	0.030	0.001	0.044	0.161	*
DUTIES15	-0.128	0.030	0.000	-0.185	-0.069	*
PHY15 WITH						
CHOICE15	-0.106	0.030	0.001	-0.162	-0.048	*
BULLY15	0.063	0.030	0.022	0.003	0.121	*
PRESS15	0.132	0.030	0.000	0.074	0.191	*
DUTIES15	-0.068	0.030	0.013	-0.127	-0.007	*
CHOICE15 WITH						
BULLY15	-0.160	0.030	0.000	-0.217	-0.099	*
PRESS15	-0.166	0.030	0.000	-0.225	-0.106	*
DUTIES15	0.135	0.030	0.000	0.075	0.194	*
BULLY15 WITH						
PRESS15	0.238	0.029	0.000	0.180	0.294	*
DUTIES15	-0.216	0.029	0.000	-0.274	-0.159	*
PRESS15 WITH						
DUTIES15	-0.263	0.028	0.000	-0.315	-0.207	*
Means						
PHY15	0.000	0.030	0.494	-0.059	0.058	
KES15	0.000	0.030	0.497	-0.058	0.057	
CHOICE15	-0.001	0.030	0.493	-0.061	0.057	
PRESS15	0.000	0.030	0.498	-0.058	0.059	
DUTIES15	0.000	0.030	0.494	-0.056	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.343	0.396	0.219	-0.968	0.519	

KESCAT16	ON						
PRAFAC		-0.615	0.214	0.007	-0.970	-0.158	*
BULLY15		0.428	0.385	0.176	-0.520	0.921	
PRAFAC	WITH						
BULLY15		0.063	0.184	0.357	-0.295	0.424	
Means							
PRAFAC		-0.166	0.128	0.102	-0.419	0.080	
BULLY15		6.113	0.785	0.000	4.619	7.812	*
Intercepts							
S1		0.637	0.595	0.022	0.021	1.990	*
Variances							
PRAFAC		1.000	0.000	0.000	1.000	1.000	
BULLY15		1.000	0.000	0.000	1.000	1.000	
Residual Variances							
KESCAT16		0.312	0.245	0.000	0.009	0.866	*
S1		0.849	0.269	0.000	0.064	1.000	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.251	0.040	0.000	0.176	0.338

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.688	0.245	0.000	0.134	0.991

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.151	0.269	0.000	0.000	0.936

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0

BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>PRESS15</u>	<u></u>
0	
<u>DUTIES15</u>	<u></u>
0	0

ALPHA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>0</u>

ALPHA	
PRESS15	DUTIES15
<u></u>	<u></u>
4	5

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0

PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
KESCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

# PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

KESCAT16
43

NU				
	KESCAT16	PRAFAC	BULLY15	
	<hr/> 0	<hr/> 0	<hr/> 0	
LAMBDA				
	S1	KESCAT16	PRAFAC	BULLY15
KESCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PRAFAC	0	0	0	0
BULLY15	0	0	0	0
THETA				
	KESCAT16	PRAFAC	BULLY15	
KESCAT16	<hr/> 0	<hr/>	<hr/>	
PRAFAC	0	0		
BULLY15	0	0	0	
ALPHA				
	S1	KESCAT16	PRAFAC	BULLY15
	<hr/> 32	<hr/> 0	<hr/> 33	<hr/> 34
BETA				
	S1	KESCAT16	PRAFAC	BULLY15
S1	<hr/> 0	<hr/> 0	<hr/> 35	<hr/> 0
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
BULLY15	0	0	0	0
PSI				
	S1	KESCAT16	PRAFAC	BULLY15
S1	<hr/> 38	<hr/>	<hr/>	<hr/>
KESCAT16	0	39		
PRAFAC	0	0	40	
BULLY15	0	0	41	42



STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/> 0.000	<hr/> 0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000

DUTIES15	0.000	1.000
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THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	<u>          </u>
DUTIES15	0.000	0.000

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA		
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	-0.352

NU			
	KESCAT16	PRAFAC	BULLY15

	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
	LAMBDA			
	S1	KESCAT16	PRAFAC	BULLY15
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	1.000
	THETA			
	KESCAT16	PRAFAC	BULLY15	
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PRAFAC	0.000	0.000		
BULLY15	0.000	0.000	0.000	
	ALPHA			
	S1	KESCAT16	PRAFAC	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>-0.033</u>	<u>1.426</u>
	BETA			
	S1	KESCAT16	PRAFAC	BULLY15
S1	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
	PSI			
	S1	KESCAT16	PRAFAC	BULLY15
S1	<u>1.000</u>	<u>1.000</u>	<u>0.469</u>	<u>0.301</u>
KESCAT16	0.000	0.000		
PRAFAC	0.000	0.000		
BULLY15	0.000	0.000	0.000	

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity

Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.634743D-03				
2	0.936330D-04	0.273415D-03			
3	-0.747239D-04	-0.769098D-04	0.107308D-02		
4	0.106893D-03	0.533816D-04	-0.146073D-03	0.108671D-02	
5	-0.729167D-04	-0.463593D-04	0.101218D-03	-0.267248D-03	0.949355D-03
6	-0.612155D-04	0.615690D-05	0.975289D-04	0.394019D-05	-0.512776D-04
7	-0.647118D-05	-0.123082D-04	-0.120587D-03	0.431751D-04	-0.401535D-04
8	-0.816590D-05	0.120762D-04	0.100418D-04	0.258923D-05	0.185051D-04
9	-0.346088D-04	-0.411295D-05	-0.689579D-05	-0.692906D-04	0.991357D-05
10	-0.387721D-04	0.282717D-05	-0.237137D-04	-0.113387D-04	-0.375994D-05
11	0.177481D-04	0.738664D-05	-0.851117D-05	0.418191D-04	-0.651993D-04
12	-0.873261D-05	-0.243511D-05	0.414332D-05	0.250268D-05	-0.170534D-04
13	0.591066D-05	0.801235D-05	-0.150571D-04	0.709245D-05	-0.107290D-04
14	-0.532692D-05	0.840251D-05	-0.217832D-04	-0.662401D-05	-0.991358D-05
15	-0.799189D-05	-0.125230D-05	0.105978D-04	-0.585602D-05	-0.161180D-04
16	0.124786D-04	0.444000D-05	0.525701D-04	0.309396D-04	-0.281939D-04
17	-0.820143D-05	-0.227526D-05	0.147051D-06	-0.521280D-05	0.224489D-06
18	0.477210D-05	0.827543D-05	0.894042D-05	0.457805D-05	-0.133235D-04
19	0.142817D-04	0.355969D-05	0.127656D-04	0.217601D-04	-0.121489D-04
20	-0.187776D-04	-0.813173D-06	-0.153529D-04	-0.341121D-04	0.366646D-04
21	-0.178861D-04	0.865749D-05	0.159596D-04	0.940043D-05	-0.256042D-05
22	-0.436159D-05	0.351455D-05	0.493059D-04	-0.212145D-04	0.283906D-05
23	-0.450541D-05	0.781077D-05	-0.473748D-04	0.192584D-04	-0.150034D-04
24	-0.144844D-04	-0.833321D-06	0.232674D-04	-0.373596D-04	-0.648047D-05
25	-0.387580D-05	-0.312591D-04	0.775630D-04	-0.495659D-04	-0.147166D-04
26	0.189677D-04	-0.333205D-05	0.124937D-04	0.174560D-05	0.643271D-05
27	0.718697D-05	-0.885799D-05	-0.659953D-05	0.309780D-04	-0.149396D-04
28	-0.216975D-04	-0.134180D-05	0.167310D-04	-0.146717D-04	0.380145D-04
29	0.137706D-04	-0.387411D-05	0.123147D-04	0.585242D-04	-0.663579D-05
30	-0.287030D-04	-0.464505D-05	0.161749D-04	0.511821D-04	0.210969D-04
31	0.397933D-04	0.279938D-04	-0.889165D-04	0.431514D-04	-0.329886D-04
32	-0.536481D-04	-0.635372D-05	0.363213D-04	-0.454806D-04	0.423732D-04
33	0.141284D-04	-0.457643D-05	0.174487D-03	-0.226805D-03	0.128645D-03
34	0.907234D-04	0.613443D-04	-0.129160D-03	0.205507D-03	-0.125471D-03

35	-0.159467D-04	-0.225076D-04	0.819503D-04	0.650897D-04	-0.720447D-04
36	-0.492408D-04	0.605166D-05	0.698683D-04	0.259062D-04	0.466614D-04
37	0.574399D-04	0.561794D-04	0.198331D-03	-0.335287D-03	0.380736D-04
38	-0.182385D-04	-0.387073D-04	-0.727435D-05	0.431871D-04	-0.366381D-04
39	0.391022D-04	-0.191278D-04	-0.192589D-05	0.144962D-04	-0.175541D-04
40	0.124823D-03	0.219463D-03	0.365321D-04	0.444685D-04	-0.513171D-03
41	-0.157652D-04	0.996748D-05	0.456434D-04	0.247765D-04	-0.747981D-05
42	-0.413826D-06	-0.133398D-04	0.264207D-05	-0.205120D-05	-0.199300D-05
43	0.119040D-03	0.748392D-04	0.274914D-03	-0.422528D-03	0.540560D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.292441D-02				
7	-0.401990D-03	0.902182D-02			
8	0.258846D-05	0.302936D-03	0.168354D-02		
9	-0.232290D-03	-0.320625D-03	0.179118D-03	0.177960D-02	
10	0.117338D-03	0.200662D-03	-0.194315D-03	0.412082D-03	0.200432D-02
11	-0.386406D-04	-0.118141D-03	-0.458713D-04	-0.517880D-04	-0.572385D-04
12	0.124676D-05	0.496499D-04	-0.116222D-04	-0.335116D-04	-0.272677D-04
13	-0.191460D-04	0.375302D-04	-0.179155D-04	-0.471277D-05	-0.257336D-04
14	-0.855183D-04	0.214678D-04	0.840119D-05	0.130627D-04	-0.136042D-05
15	-0.238544D-04	0.439815D-04	0.486403D-04	0.343601D-05	0.400849D-04
16	0.130265D-03	-0.651946D-04	-0.118219D-03	-0.133077D-04	0.237263D-04
17	-0.899271D-05	0.129801D-04	-0.197204D-05	-0.245377D-04	0.421091D-04
18	-0.263188D-04	-0.180410D-04	0.364105D-05	0.673861D-05	0.218226D-04
19	0.180244D-04	-0.353422D-04	0.254271D-04	0.308587D-05	-0.414180D-05
20	-0.227613D-04	0.417555D-04	0.150074D-04	-0.751612D-05	-0.229427D-04
21	0.295724D-04	-0.222555D-04	-0.536557D-04	-0.803715D-05	0.342564D-04
22	-0.752563D-05	-0.282996D-04	-0.245369D-04	-0.150851D-04	-0.264998D-04
23	-0.556135D-04	-0.115927D-03	0.139451D-04	0.565581D-04	-0.424460D-04
24	0.787179D-05	-0.553448D-04	-0.462862D-04	-0.199550D-04	-0.219272D-04
25	0.444555D-04	-0.456644D-04	-0.167712D-04	-0.498752D-04	-0.587483D-04
26	0.248937D-05	-0.332179D-05	0.287848D-04	0.267467D-04	-0.281251D-04
27	0.224009D-04	0.382784D-04	0.270869D-04	-0.164743D-05	-0.261867D-05
28	0.770538D-04	-0.102651D-03	-0.209546D-04	-0.619449D-04	0.139313D-04
29	0.352659D-04	0.103623D-03	-0.860296D-05	-0.147657D-04	0.501968D-04
30	-0.317208D-04	0.202509D-03	0.380255D-04	0.530676D-04	0.690185D-05
31	-0.993858D-05	-0.354879D-03	-0.516345D-04	-0.510115D-04	0.496273D-04
32	-0.910085D-04	-0.108561D-03	0.168408D-03	-0.422392D-03	0.342498D-03
33	0.445456D-03	-0.340996D-03	-0.459116D-04	-0.489880D-04	0.508593D-04
34	-0.614062D-04	0.309408D-04	0.671969D-04	0.119341D-03	0.579909D-04
35	0.163625D-03	0.178419D-03	-0.300243D-03	0.104941D-03	0.144549D-03

36	0.266130D-03	0.301755D-03	-0.118977D-03	-0.220956D-03	0.439143D-04
37	-0.276854D-03	0.108373D-02	-0.849762D-03	0.173020D-03	0.101649D-02
38	-0.529579D-04	0.633436D-03	-0.748899D-04	-0.210053D-04	0.433977D-04
39	0.320738D-04	0.349325D-03	0.246677D-04	-0.281762D-04	0.820757D-05
40	0.688315D-04	-0.336733D-03	0.389684D-03	0.134481D-03	0.141114D-03
41	-0.185596D-04	0.548494D-04	-0.785966D-05	-0.305706D-04	-0.477643D-04
42	-0.460000D-04	-0.118623D-04	0.207888D-04	0.116817D-04	0.233118D-04
43	-0.569908D-03	0.240064D-03	-0.114145D-02	0.279185D-03	0.136384D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.887362D-03				
12	0.125821D-03	0.198322D-03			
13	0.869297D-05	0.578684D-04	0.174244D-03		
14	-0.139785D-03	-0.751726D-04	-0.119293D-04	0.780742D-03	
15	-0.100883D-04	-0.360394D-04	-0.459393D-04	0.118144D-03	0.333117D-03
16	-0.208015D-05	-0.161657D-04	0.138670D-04	-0.203011D-03	-0.214764D-03
17	0.505014D-04	0.461118D-04	0.239768D-04	-0.961848D-04	-0.238588D-04
18	0.588247D-05	0.110494D-04	0.339133D-04	-0.889997D-05	-0.416144D-04
19	0.469447D-05	-0.134701D-04	-0.130025D-04	0.331144D-04	0.913625D-04
20	-0.407839D-04	-0.847992D-05	0.928429D-05	0.421888D-05	-0.130507D-04
21	0.145416D-03	0.515239D-04	0.183504D-04	-0.161967D-03	-0.349440D-04
22	0.943199D-05	0.368730D-04	0.291254D-04	-0.344600D-04	-0.566464D-04
23	0.823026D-05	-0.257604D-04	-0.173658D-04	0.170524D-03	0.104373D-03
24	-0.357183D-04	0.131002D-04	0.560488D-05	-0.176034D-04	-0.266373D-04
25	-0.142633D-04	0.217400D-04	0.289901D-05	-0.619675D-04	-0.480518D-04
26	-0.716242D-04	-0.682911D-04	-0.733840D-05	0.131127D-03	0.334449D-04
27	-0.687061D-06	0.650903D-06	-0.233787D-04	0.270500D-04	0.393237D-04
28	0.656834D-05	0.129618D-05	0.244024D-04	-0.799335D-04	-0.122007D-03
29	0.405161D-04	0.872290D-05	0.867315D-05	0.214845D-04	0.255130D-04
30	0.216962D-04	-0.965368D-05	-0.213412D-05	0.803915D-04	0.356227D-04
31	-0.257000D-04	-0.344978D-04	-0.140999D-04	-0.443931D-04	-0.311343D-04
32	-0.177032D-04	-0.132247D-04	-0.673257D-04	0.362448D-05	0.502283D-04
33	-0.155048D-03	-0.576077D-05	-0.258947D-04	0.148799D-03	-0.326647D-05
34	0.127975D-04	0.283432D-06	0.117258D-04	0.229769D-04	-0.632182D-05
35	-0.178418D-05	-0.110517D-05	0.646135D-04	0.182108D-04	-0.175207D-04
36	-0.368617D-04	0.125174D-04	0.142061D-04	-0.135237D-04	0.103554D-04
37	-0.441051D-03	-0.402600D-04	0.131976D-03	-0.438620D-04	-0.144154D-03
38	0.146620D-04	-0.215343D-04	0.341561D-04	0.812914D-04	0.801145D-05
39	-0.110751D-04	-0.110944D-04	-0.704467D-05	-0.221016D-04	-0.608087D-05
40	0.111347D-03	0.300759D-05	-0.777383D-04	-0.562769D-04	0.236292D-03
41	-0.291805D-04	-0.224524D-05	0.493544D-04	0.246249D-04	-0.386263D-05



42	0.986634D-06	-0.151819D-04	-0.883493D-05	0.994206D-06	0.114833D-04
43	-0.511280D-03	-0.257971D-04	0.195451D-03	-0.289587D-04	-0.208354D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.256992D-02				
17	0.529924D-04	0.390286D-03			
18	0.149872D-04	0.616989D-04	0.170475D-03		
19	-0.224090D-03	-0.755608D-04	-0.698668D-04	0.692767D-03	
20	0.620920D-05	0.418929D-04	0.943950D-04	-0.151319D-03	0.657845D-03
21	0.320564D-04	0.131389D-03	0.390262D-04	-0.196017D-04	0.353422D-04
22	0.214613D-04	0.498813D-04	0.675742D-04	-0.518567D-04	0.446248D-04
23	-0.464905D-03	-0.427554D-04	-0.431611D-04	0.252857D-03	-0.445491D-04
24	0.415548D-04	0.792641D-04	0.422071D-04	-0.155084D-03	0.207803D-03
25	0.797816D-04	0.857643D-04	0.315923D-04	-0.612977D-04	0.187735D-04
26	-0.285987D-04	-0.943991D-04	-0.233250D-04	0.181292D-04	-0.366753D-04
27	-0.413660D-04	-0.256992D-04	-0.539339D-04	0.307186D-04	-0.382650D-04
28	0.301361D-03	0.189946D-04	0.438897D-04	-0.172192D-03	0.379869D-04
29	0.949373D-05	-0.258364D-04	-0.560531D-04	0.130272D-03	-0.196890D-03
30	-0.775329D-04	-0.336107D-04	-0.152525D-04	0.563235D-04	-0.983725D-04
31	0.134714D-03	0.156496D-04	0.154001D-04	-0.153206D-04	0.644781D-04
32	0.117482D-03	0.651656D-05	-0.938506D-05	0.392882D-04	-0.376555D-04
33	-0.251904D-03	-0.712815D-04	0.275000D-05	0.370747D-04	0.445836D-04
34	-0.166704D-04	-0.179233D-04	0.410757D-04	-0.764454D-04	-0.169569D-04
35	-0.149879D-04	0.204982D-04	0.434135D-04	0.752112D-05	0.975069D-04
36	0.131383D-04	-0.220091D-04	-0.150828D-04	0.585422D-04	-0.499708D-04
37	-0.620850D-03	0.636367D-03	0.275786D-03	0.595679D-03	0.238678D-03
38	-0.537025D-04	0.257785D-04	0.265666D-04	0.606660D-04	-0.517810D-04
39	-0.544863D-04	-0.836664D-05	-0.414731D-05	-0.149998D-04	0.296118D-05
40	-0.726042D-03	-0.386037D-04	0.109911D-04	0.146424D-03	0.807453D-04
41	0.144645D-03	0.422670D-04	0.571451D-04	-0.116532D-03	0.272206D-05
42	-0.467209D-05	0.492864D-05	-0.837271D-06	0.201804D-05	-0.211178D-04
43	-0.103207D-02	0.915555D-03	0.436753D-03	0.776556D-03	0.315521D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.761424D-03				
22	0.136176D-03	0.344910D-03			
23	-0.151305D-03	-0.137015D-03	0.134024D-02		
24	0.641303D-04	0.108620D-03	-0.164410D-03	0.677001D-03	

25	0.272000D-03	0.155268D-03	-0.433635D-03	0.323371D-03	0.240870D-02
26	-0.187949D-03	-0.619558D-04	0.698438D-04	-0.368403D-04	-0.870768D-04
27	-0.274796D-04	-0.915045D-04	0.378124D-04	-0.367248D-04	-0.163229D-04
28	0.616806D-04	0.627075D-04	-0.386331D-03	0.680384D-04	0.715211D-04
29	-0.213716D-04	-0.424801D-04	0.944411D-04	-0.184182D-03	-0.817957D-04
30	-0.121423D-03	-0.104622D-03	0.241718D-03	-0.224856D-03	-0.629246D-03
31	-0.415086D-05	0.351954D-04	-0.431124D-04	0.316829D-04	0.151409D-03
32	0.155499D-04	0.202923D-04	0.666328D-04	-0.613387D-04	0.292361D-03
33	0.104243D-03	-0.740710D-04	-0.652367D-04	-0.281234D-04	-0.147917D-05
34	0.127760D-04	0.312515D-04	0.147088D-04	0.631694D-04	-0.917494D-04
35	0.365812D-04	0.566407D-04	-0.771587D-05	0.113373D-03	0.978991D-04
36	0.418419D-04	0.435148D-04	-0.108557D-04	-0.194182D-04	0.292161D-04
37	-0.266959D-03	-0.332045D-03	0.225661D-03	-0.239163D-03	-0.105192D-02
38	0.103586D-04	0.675359D-05	-0.350409D-04	-0.952212D-04	0.185811D-03
39	-0.297992D-04	-0.143255D-04	0.401908D-04	0.409687D-05	0.213631D-05
40	0.365953D-03	-0.486739D-04	0.166505D-03	0.516368D-04	0.468756D-03
41	-0.461514D-05	-0.157521D-05	-0.350831D-04	-0.456589D-04	-0.120026D-04
42	0.625592D-05	-0.656326D-05	-0.201863D-04	-0.134417D-04	0.598419D-05
43	-0.358366D-03	-0.438491D-03	0.355879D-03	-0.295187D-03	-0.153429D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.704258D-03				
27	0.967295D-04	0.314211D-03			
28	-0.104564D-03	-0.104257D-03	0.114127D-02		
29	0.453027D-04	0.998312D-04	-0.143800D-03	0.605343D-03	
30	0.133846D-03	0.103066D-03	-0.244102D-03	0.242756D-03	0.118704D-02
31	-0.402685D-04	-0.163607D-03	0.288082D-03	-0.298948D-03	-0.492123D-03
32	-0.145673D-05	-0.354802D-04	0.125278D-04	0.376257D-04	-0.886894D-04
33	-0.998554D-04	0.853338D-05	0.130999D-03	-0.263306D-04	-0.779899D-04
34	-0.492377D-06	-0.471341D-05	-0.183000D-04	0.146983D-04	0.542355D-04
35	-0.177652D-04	-0.721103D-04	-0.120984D-03	-0.762850D-04	0.452957D-04
36	-0.898453D-05	0.106538D-05	-0.279211D-04	0.379943D-04	-0.174135D-04
37	0.959134D-04	0.126098D-03	0.274373D-03	-0.576325D-04	0.643264D-03
38	0.367514D-04	-0.154755D-04	-0.154768D-03	0.685475D-04	0.236423D-04
39	0.205979D-04	0.117571D-05	-0.399743D-05	0.935032D-05	0.369134D-04
40	0.224201D-03	-0.694951D-04	-0.371537D-03	0.122283D-04	-0.400977D-04
41	-0.915504D-05	-0.108446D-04	-0.463591D-04	0.257522D-04	-0.820327D-05
42	-0.152490D-04	0.542310D-05	-0.496134D-05	0.711906D-05	0.648664D-05
43	0.142995D-03	0.214881D-03	0.400095D-03	-0.815003D-04	0.815892D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	31	32	33	34	35
31	0.194621D-02				
32	0.212413D-03	0.784998D-02			
33	0.305853D-03	-0.973351D-04	0.228530D-01		
34	0.270122D-04	-0.289068D-04	0.215706D-03	0.202176D-02	
35	-0.123097D-03	0.355028D-03	0.376617D-03	-0.358443D-05	0.789639D-02
36	-0.660398D-04	-0.118364D-03	0.406388D-03	-0.168606D-04	0.793065D-03
37	-0.743530D-03	-0.264671D-02	-0.179772D-02	-0.446006D-03	-0.231713D-02
38	0.927308D-04	0.149174D-02	-0.217081D-03	-0.719053D-04	0.647421D-03
39	0.556773D-04	-0.109880D-05	0.446352D-04	0.398189D-04	0.661988D-04
40	0.265365D-04	-0.367591D-03	-0.146008D-02	-0.371305D-03	-0.609093D-04
41	-0.611325D-04	-0.804383D-04	-0.219743D-03	-0.992358D-04	0.473099D-03
42	-0.175603D-04	0.134860D-04	0.252632D-04	0.151308D-04	-0.615960D-04
43	-0.102168D-02	-0.451327D-02	-0.199941D-02	-0.444065D-03	-0.328826D-02

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	36	37	38	39	40
36	0.290704D-02				
37	-0.476365D-02	0.234964D+00			
38	-0.209275D-04	-0.455796D-03	0.610174D-02		
39	-0.147144D-03	-0.140164D-02	0.205867D-03	0.924426D-03	
40	0.429182D-03	-0.183921D-02	0.557478D-03	0.597388D-04	0.682777D-01
41	-0.171558D-03	-0.158173D-02	-0.374768D-04	0.681471D-05	0.853075D-03
42	-0.241782D-04	-0.290036D-03	0.472678D-04	-0.960217D-06	0.121650D-03
43	-0.704472D-02	0.332162D+00	-0.123623D-02	-0.191856D-02	-0.285441D-02

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42	43
41	0.276127D-02		
42	0.426744D-04	0.219271D-03	
43	-0.214572D-02	-0.418543D-03	0.472934D+00

	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.225	1.000			

3	-0.091	-0.142	1.000		
4	0.129	0.098	-0.135	1.000	
5	-0.094	-0.091	0.100	-0.263	1.000
6	-0.045	0.007	0.055	0.002	-0.031
7	-0.003	-0.008	-0.039	0.014	-0.014
8	-0.008	0.018	0.007	0.002	0.015
9	-0.033	-0.006	-0.005	-0.050	0.008
10	-0.034	0.004	-0.016	-0.008	-0.003
11	0.024	0.015	-0.009	0.043	-0.071
12	-0.025	-0.010	0.009	0.005	-0.039
13	0.018	0.037	-0.035	0.016	-0.026
14	-0.008	0.018	-0.024	-0.007	-0.012
15	-0.017	-0.004	0.018	-0.010	-0.029
16	0.010	0.005	0.032	0.019	-0.018
17	-0.016	-0.007	0.000	-0.008	0.000
18	0.015	0.038	0.021	0.011	-0.033
19	0.022	0.008	0.015	0.025	-0.015
20	-0.029	-0.002	-0.018	-0.040	0.046
21	-0.026	0.019	0.018	0.010	-0.003
22	-0.009	0.011	0.081	-0.035	0.005
23	-0.005	0.013	-0.040	0.016	-0.013
24	-0.022	-0.002	0.027	-0.044	-0.008
25	-0.003	-0.039	0.048	-0.031	-0.010
26	0.028	-0.008	0.014	0.002	0.008
27	0.016	-0.030	-0.011	0.053	-0.027
28	-0.025	-0.002	0.015	-0.013	0.037
29	0.022	-0.010	0.015	0.072	-0.009
30	-0.033	-0.008	0.014	0.045	0.020
31	0.036	0.038	-0.062	0.030	-0.024
32	-0.024	-0.004	0.013	-0.016	0.016
33	0.004	-0.002	0.035	-0.046	0.028
34	0.080	0.083	-0.088	0.139	-0.091
35	-0.007	-0.015	0.028	0.022	-0.026
36	-0.036	0.007	0.040	0.015	0.028
37	0.005	0.007	0.012	-0.021	0.003
38	-0.009	-0.030	-0.003	0.017	-0.015
39	0.051	-0.038	-0.002	0.014	-0.019
40	0.019	0.051	0.004	0.005	-0.064
41	-0.012	0.011	0.027	0.014	-0.005
42	-0.001	-0.054	0.005	-0.004	-0.004
43	0.007	0.007	0.012	-0.019	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.078	1.000			
8	0.001	0.078	1.000		
9	-0.102	-0.080	0.103	1.000	
10	0.048	0.047	-0.106	0.218	1.000
11	-0.024	-0.042	-0.038	-0.041	-0.043
12	0.002	0.037	-0.020	-0.056	-0.043
13	-0.027	0.030	-0.033	-0.008	-0.044
14	-0.057	0.008	0.007	0.011	-0.001
15	-0.024	0.025	0.065	0.004	0.049
16	0.048	-0.014	-0.057	-0.006	0.010
17	-0.008	0.007	-0.002	-0.029	0.048
18	-0.037	-0.015	0.007	0.012	0.037
19	0.013	-0.014	0.024	0.003	-0.004
20	-0.016	0.017	0.014	-0.007	-0.020
21	0.020	-0.008	-0.047	-0.007	0.028
22	-0.007	-0.016	-0.032	-0.019	-0.032
23	-0.028	-0.033	0.009	0.037	-0.026
24	0.006	-0.022	-0.043	-0.018	-0.019
25	0.017	-0.010	-0.008	-0.024	-0.027
26	0.002	-0.001	0.026	0.024	-0.024
27	0.023	0.023	0.037	-0.002	-0.003
28	0.042	-0.032	-0.015	-0.043	0.009
29	0.027	0.044	-0.009	-0.014	0.046
30	-0.017	0.062	0.027	0.037	0.004
31	-0.004	-0.085	-0.029	-0.027	0.025
32	-0.019	-0.013	0.046	-0.113	0.086
33	0.054	-0.024	-0.007	-0.008	0.008
34	-0.025	0.007	0.036	0.063	0.029
35	0.034	0.021	-0.082	0.028	0.036
36	0.091	0.059	-0.054	-0.097	0.018
37	-0.011	0.024	-0.043	0.008	0.047
38	-0.013	0.085	-0.023	-0.006	0.012
39	0.020	0.121	0.020	-0.022	0.006
40	0.005	-0.014	0.036	0.012	0.012
41	-0.007	0.011	-0.004	-0.014	-0.020
42	-0.057	-0.008	0.034	0.019	0.035
43	-0.015	0.004	-0.040	0.010	0.044

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

11

12

13

14

15

11	1.000				
12	0.300	1.000			
13	0.022	0.311	1.000		
14	-0.168	-0.191	-0.032	1.000	
15	-0.019	-0.140	-0.191	0.232	1.000
16	-0.001	-0.023	0.021	-0.143	-0.232
17	0.086	0.166	0.092	-0.174	-0.066
18	0.015	0.060	0.197	-0.024	-0.175
19	0.006	-0.036	-0.037	0.045	0.190
20	-0.053	-0.023	0.027	0.006	-0.028
21	0.177	0.133	0.050	-0.210	-0.069
22	0.017	0.141	0.119	-0.066	-0.167
23	0.008	-0.050	-0.036	0.167	0.156
24	-0.046	0.036	0.016	-0.024	-0.056
25	-0.010	0.031	0.004	-0.045	-0.054
26	-0.091	-0.183	-0.021	0.177	0.069
27	-0.001	0.003	-0.100	0.055	0.122
28	0.007	0.003	0.055	-0.085	-0.198
29	0.055	0.025	0.027	0.031	0.057
30	0.021	-0.020	-0.005	0.084	0.057
31	-0.020	-0.056	-0.024	-0.036	-0.039
32	-0.007	-0.011	-0.058	0.001	0.031
33	-0.034	-0.003	-0.013	0.035	-0.001
34	0.010	0.000	0.020	0.018	-0.008
35	-0.001	-0.001	0.055	0.007	-0.011
36	-0.023	0.016	0.020	-0.009	0.011
37	-0.031	-0.006	0.021	-0.003	-0.016
38	0.006	-0.020	0.033	0.037	0.006
39	-0.012	-0.026	-0.018	-0.026	-0.011
40	0.014	0.001	-0.023	-0.008	0.050
41	-0.019	-0.003	0.071	0.017	-0.004
42	0.002	-0.073	-0.045	0.002	0.042
43	-0.025	-0.003	0.022	-0.002	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.053	1.000			
18	0.023	0.239	1.000		
19	-0.168	-0.145	-0.203	1.000	
20	0.005	0.083	0.282	-0.224	1.000

21	0.023	0.241	0.108	-0.027	0.050
22	0.023	0.136	0.279	-0.106	0.094
23	-0.251	-0.059	-0.090	0.262	-0.047
24	0.032	0.154	0.124	-0.226	0.311
25	0.032	0.088	0.049	-0.047	0.015
26	-0.021	-0.180	-0.067	0.026	-0.054
27	-0.046	-0.073	-0.233	0.066	-0.084
28	0.176	0.028	0.100	-0.194	0.044
29	0.008	-0.053	-0.174	0.201	-0.312
30	-0.044	-0.049	-0.034	0.062	-0.111
31	0.060	0.018	0.027	-0.013	0.057
32	0.026	0.004	-0.008	0.017	-0.017
33	-0.033	-0.024	0.001	0.009	0.011
34	-0.007	-0.020	0.070	-0.065	-0.015
35	-0.003	0.012	0.037	0.003	0.043
36	0.005	-0.021	-0.021	0.041	-0.036
37	-0.025	0.066	0.044	0.047	0.019
38	-0.014	0.017	0.026	0.030	-0.026
39	-0.035	-0.014	-0.010	-0.019	0.004
40	-0.055	-0.007	0.003	0.021	0.012
41	0.054	0.041	0.083	-0.084	0.002
42	-0.006	0.017	-0.004	0.005	-0.056
43	-0.030	0.067	0.049	0.043	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.266	1.000			
23	-0.150	-0.202	1.000		
24	0.089	0.225	-0.173	1.000	
25	0.201	0.170	-0.241	0.253	1.000
26	-0.257	-0.126	0.072	-0.053	-0.067
27	-0.056	-0.278	0.058	-0.080	-0.019
28	0.066	0.100	-0.312	0.077	0.043
29	-0.031	-0.093	0.105	-0.288	-0.068
30	-0.128	-0.164	0.192	-0.251	-0.372
31	-0.003	0.043	-0.027	0.028	0.070
32	0.006	0.012	0.021	-0.027	0.067
33	0.025	-0.026	-0.012	-0.007	0.000
34	0.010	0.037	0.009	0.054	-0.042
35	0.015	0.034	-0.002	0.049	0.022
36	0.028	0.043	-0.005	-0.014	0.011

37	-0.020	-0.037	0.013	-0.019	-0.044
38	0.005	0.005	-0.012	-0.047	0.048
39	-0.036	-0.025	0.036	0.005	0.001
40	0.051	-0.010	0.017	0.008	0.037
41	-0.003	-0.002	-0.018	-0.033	-0.005
42	0.015	-0.024	-0.037	-0.035	0.008
43	-0.019	-0.034	0.014	-0.016	-0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.206	1.000			
28	-0.117	-0.174	1.000		
29	0.069	0.229	-0.173	1.000	
30	0.146	0.169	-0.210	0.286	1.000
31	-0.034	-0.209	0.193	-0.275	-0.324
32	-0.001	-0.023	0.004	0.017	-0.029
33	-0.025	0.003	0.026	-0.007	-0.015
34	0.000	-0.006	-0.012	0.013	0.035
35	-0.008	-0.046	-0.040	-0.035	0.015
36	-0.006	0.001	-0.015	0.029	-0.009
37	0.007	0.015	0.017	-0.005	0.039
38	0.018	-0.011	-0.059	0.036	0.009
39	0.026	0.002	-0.004	0.012	0.035
40	0.032	-0.015	-0.042	0.002	-0.004
41	-0.007	-0.012	-0.026	0.020	-0.005
42	-0.039	0.021	-0.010	0.020	0.013
43	0.008	0.018	0.017	-0.005	0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.054	1.000			
33	0.046	-0.007	1.000		
34	0.014	-0.007	0.032	1.000	
35	-0.031	0.045	0.028	-0.001	1.000
36	-0.028	-0.025	0.050	-0.007	0.166
37	-0.035	-0.062	-0.025	-0.020	-0.054
38	0.027	0.216	-0.018	-0.020	0.093
39	0.042	0.000	0.010	0.029	0.025



40	0.002	-0.016	-0.037	-0.032	-0.003
41	-0.026	-0.017	-0.028	-0.042	0.101
42	-0.027	0.010	0.011	0.023	-0.047
43	-0.034	-0.074	-0.019	-0.014	-0.054

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.182	1.000			
38	-0.005	-0.012	1.000		
39	-0.090	-0.095	0.087	1.000	
40	0.030	-0.015	0.027	0.008	1.000
41	-0.061	-0.062	-0.009	0.004	0.062
42	-0.030	-0.040	0.041	-0.002	0.031
43	-0.190	0.996	-0.023	-0.092	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.055	1.000	
43	-0.059	-0.041	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.035	38
200	1.017	35
300	1.014	38
400	1.012	34
500	1.007	32

600	1.010	39
700	1.005	39
800	1.006	39
900	1.004	39
1000	1.003	7

Reduced psychological distress, time pressure interaction

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	1.000	1.000	1.000	1.000	
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.989
PRESS15	0.990	0.990	0.990	0.990	0.989
DUTIES15	0.991	0.991	0.991	0.991	0.990

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.990		
PRESS15	0.989	0.990	
DUTIES15	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412

	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		2.915	0.096	1.000	9.89%	2.000	3.000	3.000
	1102.000	1.160	-0.512	5.000	8.35%	3.000	4.000	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.165	0.054	0.003	0.058	0.272	*
CHOICE15	0.025	0.041	0.266	-0.051	0.111	
DUTIES15	-0.076	0.045	0.050	-0.164	0.012	
BULLY15	0.114	0.061	0.031	-0.005	0.235	
KES15	0.804	0.096	0.000	0.626	0.996	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.079	0.135	*
CHOICE15	-0.095	0.018	0.000	-0.133	-0.061	*
BULLY15	0.072	0.013	0.000	0.049	0.099	*

PRESS15	0.070	0.019	0.000	0.036	0.108	*
DUTIES15	-0.073	0.018	0.000	-0.107	-0.037	*
PHY15 WITH						
CHOICE15	-0.098	0.028	0.001	-0.152	-0.043	*
BULLY15	0.041	0.020	0.018	0.002	0.077	*
PRESS15	0.114	0.028	0.000	0.064	0.172	*
DUTIES15	-0.058	0.027	0.015	-0.112	-0.005	*
CHOICE15 WITH						
BULLY15	-0.137	0.026	0.000	-0.189	-0.086	*
PRESS15	-0.184	0.037	0.000	-0.261	-0.112	*
DUTIES15	0.151	0.034	0.000	0.083	0.219	*
BULLY15 WITH						
PRESS15	0.196	0.025	0.000	0.144	0.247	*
DUTIES15	-0.176	0.024	0.000	-0.225	-0.130	*
PRESS15 WITH						
DUTIES15	-0.283	0.035	0.000	-0.352	-0.217	*
Means						
PHY15	-0.001	0.025	0.483	-0.051	0.048	
KES15	0.000	0.017	0.498	-0.031	0.032	
CHOICE15	0.000	0.033	0.493	-0.066	0.061	
BULLY15	0.000	0.024	0.500	-0.048	0.046	
DUTIES15	0.000	0.031	0.497	-0.059	0.063	
Variances						
PHY15	0.704	0.030	0.000	0.648	0.765	*
KES15	0.314	0.013	0.000	0.289	0.341	*
CHOICE15	1.194	0.051	0.000	1.097	1.296	*
BULLY15	0.603	0.026	0.000	0.555	0.656	*
PRESS15	1.118	0.048	0.000	1.030	1.217	*
DUTIES15	1.033	0.044	0.000	0.953	1.126	*
Between Level						
S1 ON						
PRAFAC	0.000	0.049	0.495	-0.090	0.096	
KESCAT16 ON						
PRAFAC	-0.112	0.058	0.023	-0.234	-0.002	*
PRESS15	-0.157	0.316	0.315	-0.770	0.432	

PRAFAC WITH PRESS15	0.084	0.072	0.100	-0.047	0.242	
Means						
PRAFAC	-0.194	0.151	0.102	-0.495	0.093	
PRESS15	2.873	0.062	0.000	2.744	2.991	*
Intercepts						
S1	-0.044	0.056	0.213	-0.163	0.062	
Thresholds						
KESCAT16\$1	-0.930	0.924	0.170	-2.727	0.807	
Variances						
PRAFAC	1.334	0.265	0.000	0.958	1.998	*
PRESS15	0.096	0.029	0.000	0.054	0.169	*
Residual Variances						
KESCAT16	0.021	0.035	0.000	0.001	0.130	*
S1	0.019	0.030	0.000	0.001	0.114	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON PRESS15	-0.045	0.046	0.160	-0.137	0.047	
KESCAT16 ON						
PHY15	0.120	0.039	0.002	0.042	0.195	*
CHOICE15	0.025	0.039	0.257	-0.050	0.104	
DUTIES15	-0.068	0.039	0.045	-0.143	0.008	
BULLY15	0.075	0.041	0.030	-0.003	0.157	
KES15	0.393	0.039	0.000	0.314	0.471	*
KES15 WITH						

PHY15	0.227	0.028	0.000	0.172	0.282	*
CHOICE15	-0.157	0.029	0.000	-0.213	-0.101	*
BULLY15	0.166	0.029	0.000	0.113	0.222	*
PRESS15	0.118	0.031	0.000	0.059	0.177	*
DUTIES15	-0.128	0.030	0.000	-0.185	-0.069	*
PHY15 WITH						
CHOICE15	-0.106	0.030	0.001	-0.162	-0.048	*
BULLY15	0.062	0.030	0.019	0.003	0.117	*
PRESS15	0.129	0.030	0.000	0.070	0.189	*
DUTIES15	-0.068	0.030	0.014	-0.127	-0.007	*
CHOICE15 WITH						
BULLY15	-0.164	0.029	0.000	-0.219	-0.103	*
PRESS15	-0.159	0.031	0.000	-0.219	-0.096	*
DUTIES15	0.135	0.030	0.000	0.076	0.194	*
BULLY15 WITH						
PRESS15	0.239	0.029	0.000	0.179	0.294	*
DUTIES15	-0.223	0.028	0.000	-0.277	-0.167	*
PRESS15 WITH						
DUTIES15	-0.263	0.028	0.000	-0.316	-0.207	*
Means						
PHY15	0.000	0.030	0.498	-0.059	0.058	
KES15	0.000	0.030	0.497	-0.057	0.058	
CHOICE15	0.000	0.030	0.497	-0.059	0.057	
BULLY15	0.001	0.030	0.493	-0.060	0.059	
DUTIES15	0.001	0.030	0.491	-0.056	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	0.005	0.399	0.495	-0.760	0.830	



KESCAT16	ON						
PRAFAC		-0.569	0.258	0.023	-0.988	-0.011	*
PRESS15		-0.216	0.385	0.315	-0.845	0.552	
PRAFAC	WITH						
PRESS15		0.239	0.177	0.100	-0.127	0.573	
Means							
PRAFAC		-0.166	0.128	0.102	-0.419	0.080	
PRESS15		9.296	1.393	0.000	6.942	12.328	*
Intercepts							
S1		-0.290	0.462	0.213	-1.440	0.533	
Variances							
PRAFAC		1.000	0.000	0.000	1.000	1.000	
PRESS15		1.000	0.000	0.000	1.000	1.000	
Residual Variances							
KESCAT16		0.412	0.252	0.000	0.021	0.895	*
S1		0.925	0.202	0.000	0.233	1.000	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.240	0.037	0.000	0.171	0.316

#### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.588	0.252	0.000	0.105	0.979

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.075	0.202	0.000	0.000	0.767

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA		
	PRESS15	DUTIES15
	<u>0</u>	<u>5</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0

PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
KESCAT16	0	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

# PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

KESCAT16
43

NU				
	KESCAT16	PRAFAC	PRESS15	
	<u>0</u>	<u>0</u>	<u>0</u>	
LAMBDA				
	S1	KESCAT16	PRAFAC	PRESS15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0
PRESS15	0	0	0	0
THETA				
	KESCAT16	PRAFAC	PRESS15	
KESCAT16	<u>0</u>	<u></u>	<u></u>	
PRAFAC	0	0		
PRESS15	0	0	0	
ALPHA				
	S1	KESCAT16	PRAFAC	PRESS15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>
BETA				
	S1	KESCAT16	PRAFAC	PRESS15
S1	<u>0</u>	<u>0</u>	<u>35</u>	<u>0</u>
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
PRESS15	0	0	0	0
PSI				
	S1	KESCAT16	PRAFAC	PRESS15
S1	<u>38</u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	39		
PRAFAC	0	0	40	
PRESS15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/> 0.000	<hr/> 0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000

DUTIES15	0.000	1.000
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	THETA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	THETA	
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	<u>          </u>
DUTIES15	0.000	0.000

	ALPHA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

	ALPHA	
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	BETA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	-0.352

NU			
	KESCAT16	PRAFAC	PRESS15



	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
	LAMBDA			
	S1	KESCAT16	PRAFAC	PRESS15
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
	THETA			
	KESCAT16	PRAFAC	PRESS15	
KESCAT16	<u>0.000</u>			
PRAFAC	0.000	0.000		
PRESS15	0.000	0.000	0.000	
	ALPHA			
	S1	KESCAT16	PRAFAC	PRESS15
	<u>0.000</u>	<u>0.000</u>	<u>-0.033</u>	<u>2.915</u>
	BETA			
	S1	KESCAT16	PRAFAC	PRESS15
S1	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
	PSI			
	S1	KESCAT16	PRAFAC	PRESS15
S1	<u>1.000</u>			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.469	
PRESS15	0.000	0.000	0.000	0.580

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity

Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.641572D-03				
2	0.941574D-04	0.275171D-03			
3	-0.758596D-04	-0.767209D-04	0.106791D-02		
4	0.357094D-04	0.651602D-04	-0.987995D-04	0.565754D-03	
5	-0.766828D-04	-0.488775D-04	0.103775D-03	-0.166960D-03	0.946576D-03
6	-0.643333D-04	0.135763D-05	0.947579D-04	0.117652D-04	-0.384498D-04
7	0.646692D-05	-0.778291D-05	-0.124910D-03	0.211935D-04	-0.310287D-04
8	-0.137355D-05	0.135930D-04	0.451441D-05	0.576934D-05	0.169513D-04
9	-0.475314D-04	0.462853D-04	-0.475539D-04	-0.398219D-04	-0.301441D-05
10	-0.382490D-04	-0.176089D-05	-0.167417D-04	-0.966743D-05	-0.241373D-07
11	0.163543D-04	0.598452D-05	-0.545989D-05	0.291466D-04	-0.624680D-04
12	-0.844192D-05	-0.286101D-05	0.419443D-05	0.252728D-05	-0.186964D-04
13	0.596321D-05	0.772697D-05	-0.130252D-04	0.412041D-05	-0.100458D-04
14	-0.492119D-05	0.880713D-05	-0.208508D-04	-0.445659D-05	-0.103704D-04
15	-0.762489D-05	-0.831957D-06	0.988986D-05	-0.617905D-06	-0.186449D-04
16	0.993567D-05	0.388630D-05	0.513494D-04	0.190015D-04	-0.242714D-04
17	-0.874031D-05	-0.385801D-05	-0.351757D-05	-0.925805D-05	-0.380025D-05
18	0.655972D-05	0.644186D-05	0.923378D-05	0.960187D-06	-0.107771D-04
19	0.123442D-04	0.647308D-05	0.998572D-05	0.237391D-04	-0.829287D-05
20	-0.216310D-04	0.205621D-05	-0.142309D-04	-0.292856D-04	0.318025D-04
21	-0.105409D-04	0.145695D-04	0.144293D-04	0.120333D-04	0.364800D-05
22	-0.267572D-05	0.459842D-05	0.492591D-04	-0.143339D-04	-0.902510D-06
23	-0.546411D-05	0.250184D-05	-0.392181D-04	-0.660481D-06	-0.167500D-04
24	-0.193934D-04	0.426036D-06	0.298789D-04	-0.324263D-04	-0.623607D-05
25	0.765874D-05	-0.212189D-04	0.614819D-04	-0.201216D-04	-0.768959D-05
26	0.194748D-04	-0.267734D-05	0.122443D-04	-0.943980D-06	0.577175D-05
27	0.762303D-05	-0.831505D-05	-0.793926D-05	0.240825D-04	-0.153136D-04
28	-0.226253D-04	-0.241395D-05	0.187111D-04	-0.119797D-04	0.430571D-04
29	0.203783D-04	-0.331959D-05	0.117996D-04	0.391591D-04	-0.894330D-05
30	-0.352694D-04	-0.131547D-04	0.211190D-04	0.265668D-04	0.234387D-04
31	0.377082D-04	0.272141D-04	-0.844485D-04	0.304117D-04	-0.280511D-04
32	0.986177D-06	-0.203137D-04	0.590426D-04	-0.392939D-04	0.111398D-04
33	0.107514D-04	0.288677D-05	0.176694D-03	-0.162577D-03	0.109262D-03
34	0.180978D-03	0.805283D-04	-0.153774D-03	0.186285D-03	-0.193759D-03

35	0.247992D-05	-0.126868D-04	0.870638D-05	0.192764D-05	-0.462921D-04
36	-0.454111D-04	0.532832D-06	0.501920D-04	0.298493D-04	0.544626D-04
37	0.474179D-04	0.468614D-04	0.599887D-04	-0.333591D-03	0.418367D-04
38	-0.149780D-04	-0.119236D-04	0.137162D-04	0.123251D-04	0.112064D-04
39	0.373609D-04	-0.128799D-04	0.111117D-04	0.606520D-05	0.593052D-05
40	0.127784D-03	0.190683D-03	0.374335D-04	0.616176D-04	-0.466317D-03
41	0.993850D-06	-0.284712D-06	0.687909D-05	0.325827D-04	-0.257679D-04
42	-0.101344D-04	-0.276835D-04	0.203605D-04	-0.729256D-05	0.338241D-05
43	0.114227D-03	0.116158D-03	0.194599D-03	-0.989537D-03	0.160515D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.293184D-02				
7	-0.372438D-03	0.920943D-02			
8	-0.154925D-05	0.321507D-03	0.167760D-02		
9	0.178734D-03	-0.441830D-03	0.265010D-03	0.374257D-02	
10	0.108715D-03	0.212469D-03	-0.200936D-03	0.362110D-03	0.200576D-02
11	-0.239134D-04	-0.103890D-03	-0.464536D-04	-0.101870D-03	-0.599216D-04
12	0.224273D-05	0.398586D-04	-0.118296D-04	-0.496243D-04	-0.280263D-04
13	-0.144715D-04	0.380691D-04	-0.208935D-04	-0.457059D-04	-0.332786D-04
14	-0.797419D-04	0.312957D-04	0.536245D-05	0.987295D-05	0.892277D-05
15	-0.257373D-04	0.334579D-04	0.429944D-04	-0.294706D-06	0.394857D-04
16	0.110345D-03	-0.929896D-04	-0.116506D-03	0.102847D-03	0.245150D-04
17	-0.171580D-04	0.191115D-04	0.251561D-05	-0.266098D-04	0.429113D-04
18	-0.167157D-04	-0.255822D-04	0.255011D-06	-0.860451D-05	0.167399D-04
19	0.782600D-05	-0.221239D-04	0.127322D-04	0.198706D-04	-0.104776D-04
20	-0.311592D-04	0.253100D-04	0.179025D-04	0.566978D-05	-0.156712D-04
21	0.178283D-04	0.107718D-04	-0.530061D-04	-0.663345D-04	0.143479D-04
22	-0.144019D-04	-0.217194D-04	-0.138327D-04	-0.572482D-05	-0.241713D-04
23	-0.672459D-04	-0.101695D-03	0.321881D-04	-0.341419D-06	-0.464446D-04
24	0.136468D-04	-0.709956D-04	-0.359684D-04	-0.116759D-04	-0.262742D-04
25	0.196868D-04	-0.100978D-03	-0.171528D-04	0.591445D-04	-0.338231D-04
26	-0.271981D-05	0.987527D-05	0.264813D-04	0.314781D-04	-0.268682D-04
27	0.158781D-04	0.421111D-04	0.257895D-04	-0.909601D-05	-0.420992D-05
28	0.829619D-04	-0.102318D-03	-0.184482D-04	-0.540914D-05	0.205970D-04
29	0.394358D-04	0.127415D-03	-0.137349D-05	0.772212D-05	0.368192D-04
30	-0.269293D-04	0.224491D-03	0.307749D-04	0.930992D-05	-0.590482D-05
31	-0.249260D-04	-0.355352D-03	-0.553100D-04	-0.205618D-04	0.588429D-04
32	-0.316702D-03	-0.420092D-03	0.990856D-04	-0.486113D-03	0.359262D-03
33	0.417530D-03	-0.415048D-03	-0.720447D-04	-0.251900D-03	0.874147D-04
34	-0.820899D-04	-0.630033D-04	0.870164D-04	0.213389D-03	0.929547D-04
35	-0.915780D-05	-0.711713D-04	-0.121354D-03	0.958890D-04	-0.148176D-04

36	0.320884D-03	0.184442D-03	-0.164139D-03	-0.173185D-04	0.717299D-04
37	-0.180425D-02	0.157392D-02	0.189528D-03	-0.576064D-03	0.108791D-03
38	0.479325D-04	0.344398D-03	0.591270D-05	0.131098D-05	0.212939D-04
39	0.746428D-04	0.473403D-03	0.360653D-04	-0.106018D-03	0.218838D-04
40	0.599208D-04	0.202961D-03	0.361650D-03	0.416832D-03	0.116542D-03
41	-0.116382D-03	-0.381140D-04	-0.153855D-05	-0.673110D-04	-0.520770D-04
42	-0.181245D-04	0.138860D-04	0.409055D-04	-0.330476D-04	0.532399D-04
43	-0.540393D-02	0.342335D-02	0.603098D-03	-0.189067D-02	0.216674D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.887525D-03				
12	0.126315D-03	0.198051D-03			
13	0.842420D-05	0.578666D-04	0.174205D-03		
14	-0.140225D-03	-0.755801D-04	-0.122975D-04	0.780693D-03	
15	-0.975053D-05	-0.362713D-04	-0.460245D-04	0.118354D-03	0.333335D-03
16	-0.771691D-06	-0.165143D-04	0.132642D-04	-0.203727D-03	-0.215419D-03
17	0.489456D-04	0.459013D-04	0.239485D-04	-0.998604D-04	-0.221209D-04
18	0.491739D-05	0.123025D-04	0.342818D-04	-0.111244D-04	-0.426404D-04
19	0.300256D-05	-0.154593D-04	-0.123516D-04	0.427560D-04	0.884413D-04
20	-0.382846D-04	-0.819919D-05	0.997671D-05	0.924782D-05	-0.130562D-04
21	0.141380D-03	0.552407D-04	0.213870D-04	-0.152553D-03	-0.355704D-04
22	0.803228D-05	0.349859D-04	0.337318D-04	-0.315408D-04	-0.546534D-04
23	0.855818D-05	-0.234757D-04	-0.184807D-04	0.153809D-03	0.108065D-03
24	-0.380489D-04	0.129358D-04	0.742781D-05	-0.187087D-04	-0.265127D-04
25	-0.183592D-04	0.212951D-04	0.161481D-05	-0.660361D-04	-0.407533D-04
26	-0.715288D-04	-0.682985D-04	-0.777802D-05	0.130640D-03	0.335927D-04
27	-0.806245D-06	0.612113D-06	-0.234994D-04	0.277061D-04	0.393078D-04
28	0.710732D-05	0.109429D-05	0.243205D-04	-0.792643D-04	-0.122628D-03
29	0.400524D-04	0.946371D-05	0.671494D-05	0.135379D-04	0.311538D-04
30	0.250578D-04	-0.842622D-05	0.565433D-07	0.873029D-04	0.276019D-04
31	-0.255498D-04	-0.349066D-04	-0.144370D-04	-0.450988D-04	-0.308948D-04
32	-0.307518D-04	-0.312116D-05	-0.402313D-04	0.276386D-05	0.338123D-04
33	-0.149962D-03	-0.371638D-05	-0.263751D-04	0.145499D-03	-0.592574D-05
34	0.218913D-04	0.542271D-05	0.182683D-04	0.316357D-04	0.126207D-04
35	-0.184552D-05	0.378191D-05	0.385798D-04	0.124464D-04	-0.220400D-04
36	-0.386048D-04	0.115406D-05	0.297199D-04	-0.245478D-04	-0.292618D-06
37	0.302488D-05	-0.358225D-04	0.118136D-03	0.201051D-03	-0.236517D-03
38	0.173749D-04	-0.216127D-04	0.679267D-05	0.442461D-04	-0.342093D-05
39	-0.393026D-04	-0.173867D-04	-0.162192D-04	-0.107005D-04	-0.460147D-05
40	-0.216565D-04	0.359639D-05	-0.189944D-04	0.716257D-04	0.266647D-03
41	-0.688670D-04	-0.101105D-04	0.533734D-04	0.645062D-04	0.284850D-04

42	-0.136340D-04	-0.154358D-04	-0.690826D-05	-0.994170D-06	0.249656D-04
43	0.120226D-03	-0.682932D-04	0.354797D-03	0.569204D-03	-0.718261D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.257082D-02				
17	0.505337D-04	0.381941D-03			
18	0.136158D-04	0.577458D-04	0.166347D-03		
19	-0.223079D-03	-0.691168D-04	-0.623631D-04	0.666200D-03	
20	0.972218D-05	0.383340D-04	0.918082D-04	-0.142195D-03	0.658335D-03
21	0.294912D-04	0.131325D-03	0.411117D-04	-0.263392D-04	0.392497D-04
22	0.183222D-04	0.488605D-04	0.693634D-04	-0.512359D-04	0.457799D-04
23	-0.440711D-03	-0.392174D-04	-0.487351D-04	0.256584D-03	-0.416361D-04
24	0.551671D-04	0.737845D-04	0.471463D-04	-0.126351D-03	0.191271D-03
25	0.661000D-04	0.828301D-04	0.292131D-04	-0.507228D-04	0.142176D-04
26	-0.277394D-04	-0.995292D-04	-0.229060D-04	0.156483D-04	-0.360283D-04
27	-0.419579D-04	-0.249558D-04	-0.557696D-04	0.304522D-04	-0.369156D-04
28	0.300520D-03	0.239874D-04	0.444862D-04	-0.188927D-03	0.447175D-04
29	-0.317056D-05	-0.238110D-04	-0.566543D-04	0.128746D-03	-0.196339D-03
30	-0.652069D-04	-0.373093D-04	-0.155792D-04	0.576465D-04	-0.950863D-04
31	0.136227D-03	0.252309D-04	0.206219D-04	-0.256184D-04	0.684995D-04
32	0.191319D-04	0.862070D-05	-0.907809D-05	-0.299635D-05	-0.198602D-04
33	-0.250120D-03	-0.835809D-04	-0.567577D-05	0.231114D-04	0.548434D-04
34	-0.576203D-04	-0.577462D-04	0.283549D-04	-0.215622D-04	-0.685504D-04
35	-0.155173D-04	-0.156788D-04	0.231189D-04	0.242060D-04	0.286953D-04
36	0.132927D-03	-0.108266D-04	0.994702D-05	0.142477D-04	-0.689885D-04
37	-0.356710D-03	0.172135D-04	0.190414D-04	0.443007D-04	0.324283D-03
38	-0.237105D-04	0.566069D-05	0.469455D-05	0.254696D-04	-0.121580D-04
39	-0.111656D-03	-0.975110D-06	-0.271054D-05	0.877263D-05	0.271832D-04
40	-0.589730D-03	-0.163093D-04	0.497755D-04	0.413137D-04	0.159412D-03
41	0.210889D-03	0.177788D-04	0.574261D-04	-0.634214D-04	-0.955872D-06
42	0.155381D-04	0.182395D-04	0.212141D-05	0.600827D-05	-0.302318D-04
43	-0.111627D-02	0.661835D-04	0.878806D-04	0.106826D-03	0.939082D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.759301D-03				
22	0.142069D-03	0.346361D-03			
23	-0.149373D-03	-0.140677D-03	0.135262D-02		
24	0.609890D-04	0.105350D-03	-0.184507D-03	0.648268D-03	

25	0.255675D-03	0.169339D-03	-0.457610D-03	0.331290D-03	0.234075D-02
26	-0.183126D-03	-0.616617D-04	0.672533D-04	-0.397121D-04	-0.710777D-04
27	-0.314852D-04	-0.926213D-04	0.390699D-04	-0.368603D-04	-0.192248D-04
28	0.543947D-04	0.613490D-04	-0.358624D-03	0.723984D-04	0.383670D-04
29	-0.265920D-04	-0.397581D-04	0.101200D-03	-0.169803D-03	-0.763616D-04
30	-0.113072D-03	-0.106982D-03	0.243663D-03	-0.248704D-03	-0.645228D-03
31	-0.117662D-04	0.292121D-04	-0.258248D-04	0.388195D-04	0.139215D-03
32	0.179222D-06	0.312595D-04	0.525874D-04	0.903261D-05	0.136747D-03
33	0.901513D-04	-0.778031D-04	-0.456790D-04	-0.393329D-04	-0.139705D-04
34	0.570675D-04	0.683818D-04	-0.105125D-03	0.627584D-04	0.533273D-04
35	0.356582D-04	0.261765D-04	-0.230818D-04	0.686534D-04	0.660561D-04
36	-0.618641D-05	0.298657D-04	-0.583637D-04	-0.765142D-05	0.477245D-04
37	0.279075D-03	-0.358430D-04	0.628503D-03	-0.125110D-03	-0.629166D-03
38	0.330726D-05	0.437249D-05	-0.268218D-04	-0.302449D-04	0.418506D-04
39	-0.262622D-04	-0.159756D-04	0.665673D-04	-0.259136D-05	-0.114099D-04
40	0.290339D-03	-0.481631D-04	0.147076D-03	0.141495D-04	0.260653D-03
41	0.102125D-03	0.298599D-04	-0.136554D-03	-0.983071D-06	0.848529D-04
42	-0.158599D-04	-0.780242D-05	0.871271D-05	-0.131597D-04	-0.588079D-04
43	0.848539D-03	-0.904328D-04	0.189263D-02	-0.320667D-03	-0.184158D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.703840D-03				
27	0.967100D-04	0.314456D-03			
28	-0.104327D-03	-0.104667D-03	0.114265D-02		
29	0.468243D-04	0.970762D-04	-0.155100D-03	0.580253D-03	
30	0.124333D-03	0.113577D-03	-0.222881D-03	0.246956D-03	0.119809D-02
31	-0.403955D-04	-0.163541D-03	0.289111D-03	-0.305639D-03	-0.485607D-03
32	-0.241713D-04	-0.166082D-04	0.130367D-04	-0.469822D-05	-0.853891D-04
33	-0.103120D-03	0.813401D-05	0.132212D-03	-0.426688D-04	-0.604500D-04
34	0.192720D-04	0.639338D-05	-0.257719D-04	0.538588D-04	-0.462232D-04
35	-0.422149D-04	-0.441371D-04	-0.733732D-04	-0.206606D-04	-0.313071D-04
36	-0.156995D-04	0.884162D-05	-0.622188D-04	0.458767D-04	-0.643347D-04
37	0.107444D-03	0.435919D-04	0.336430D-03	-0.145588D-03	0.501712D-03
38	0.193750D-04	-0.197891D-05	-0.580363D-04	0.366087D-04	0.313537D-04
39	0.375538D-05	-0.630101D-05	-0.246629D-04	0.115824D-05	0.201035D-04
40	0.249356D-03	-0.657878D-04	-0.385057D-03	0.383516D-04	0.312362D-04
41	-0.348206D-04	-0.308806D-04	-0.529229D-04	0.445600D-04	0.850826D-05
42	-0.350630D-04	-0.507833D-06	-0.140194D-04	0.793654D-05	0.396111D-04
43	0.301246D-03	0.146082D-03	0.993469D-03	-0.431582D-03	0.137232D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.194632D-02				
32	0.963954D-04	0.316195D-02			
33	0.307149D-03	0.146490D-03	0.227567D-01		
34	0.474566D-04	0.329502D-04	0.137579D-02	0.377986D-02	
35	-0.474640D-04	0.172646D-03	0.208625D-03	-0.829919D-05	0.243268D-02
36	-0.977906D-04	0.105353D-03	0.399277D-03	0.141266D-03	0.286334D-03
37	-0.302494D-03	-0.189290D-02	-0.165995D-02	-0.726642D-03	-0.221744D-03
38	-0.268127D-04	-0.329788D-03	-0.362088D-04	-0.225633D-04	-0.421167D-04
39	0.293571D-04	-0.129385D-04	-0.354332D-04	0.394663D-04	0.174398D-04
40	0.478891D-05	-0.417720D-03	-0.166987D-02	-0.722693D-03	-0.247263D-03
41	-0.100592D-03	0.402817D-04	-0.622940D-03	-0.879528D-04	0.133172D-03
42	-0.397903D-04	0.487445D-04	0.999042D-04	-0.219764D-03	-0.256264D-05
43	-0.855449D-03	-0.569790D-02	-0.438801D-02	-0.219062D-02	-0.747278D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.340098D-02				
37	-0.756928D-02	0.999126D-01			
38	-0.113094D-03	0.764487D-03	0.892741D-03		
39	-0.179449D-03	-0.791910D-03	0.593574D-04	0.121167D-02	
40	0.151420D-03	-0.317024D-02	0.225605D-03	0.238510D-03	0.702785D-01
41	0.207759D-03	-0.117429D-02	-0.824916D-04	-0.336659D-05	0.445645D-02
42	0.721148D-04	-0.818279D-03	0.489373D-06	0.107057D-04	0.466722D-03
43	-0.222757D-01	0.291515D+00	0.207789D-02	-0.219618D-02	-0.992975D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	0.515653D-02	
42	0.557125D-03	0.866577D-03
43	-0.354080D-02	-0.242291D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			
2	0.224	1.000		



3	-0.092	-0.142	1.000		
4	0.059	0.165	-0.127	1.000	
5	-0.098	-0.096	0.103	-0.228	1.000
6	-0.047	0.002	0.054	0.009	-0.023
7	0.003	-0.005	-0.040	0.009	-0.011
8	-0.001	0.020	0.003	0.006	0.013
9	-0.031	0.046	-0.024	-0.027	-0.002
10	-0.034	-0.002	-0.011	-0.009	0.000
11	0.022	0.012	-0.006	0.041	-0.068
12	-0.024	-0.012	0.009	0.008	-0.043
13	0.018	0.035	-0.030	0.013	-0.025
14	-0.007	0.019	-0.023	-0.007	-0.012
15	-0.016	-0.003	0.017	-0.001	-0.033
16	0.008	0.005	0.031	0.016	-0.016
17	-0.018	-0.012	-0.006	-0.020	-0.006
18	0.020	0.030	0.022	0.003	-0.027
19	0.019	0.015	0.012	0.039	-0.010
20	-0.033	0.005	-0.017	-0.048	0.040
21	-0.015	0.032	0.016	0.018	0.004
22	-0.006	0.015	0.081	-0.032	-0.002
23	-0.006	0.004	-0.033	-0.001	-0.015
24	-0.030	0.001	0.036	-0.054	-0.008
25	0.006	-0.026	0.039	-0.017	-0.005
26	0.029	-0.006	0.014	-0.001	0.007
27	0.017	-0.028	-0.014	0.057	-0.028
28	-0.026	-0.004	0.017	-0.015	0.041
29	0.033	-0.008	0.015	0.068	-0.012
30	-0.040	-0.023	0.019	0.032	0.022
31	0.034	0.037	-0.059	0.029	-0.021
32	0.001	-0.022	0.032	-0.029	0.006
33	0.003	0.001	0.036	-0.045	0.024
34	0.116	0.079	-0.077	0.127	-0.102
35	0.002	-0.016	0.005	0.002	-0.031
36	-0.031	0.001	0.026	0.022	0.030
37	0.006	0.009	0.006	-0.044	0.004
38	-0.020	-0.024	0.014	0.017	0.012
39	0.042	-0.022	0.010	0.007	0.006
40	0.019	0.043	0.004	0.010	-0.057
41	0.001	0.000	0.003	0.019	-0.012
42	-0.014	-0.057	0.021	-0.010	0.004
43	0.005	0.008	0.006	-0.045	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.072	1.000			
8	-0.001	0.082	1.000		
9	0.054	-0.075	0.106	1.000	
10	0.045	0.049	-0.110	0.132	1.000
11	-0.015	-0.036	-0.038	-0.056	-0.045
12	0.003	0.030	-0.021	-0.058	-0.044
13	-0.020	0.030	-0.039	-0.057	-0.056
14	-0.053	0.012	0.005	0.006	0.007
15	-0.026	0.019	0.057	0.000	0.048
16	0.040	-0.019	-0.056	0.033	0.011
17	-0.016	0.010	0.003	-0.022	0.049
18	-0.024	-0.021	0.000	-0.011	0.029
19	0.006	-0.009	0.012	0.013	-0.009
20	-0.022	0.010	0.017	0.004	-0.014
21	0.012	0.004	-0.047	-0.039	0.012
22	-0.014	-0.012	-0.018	-0.005	-0.029
23	-0.034	-0.029	0.021	0.000	-0.028
24	0.010	-0.029	-0.034	-0.007	-0.023
25	0.008	-0.022	-0.009	0.020	-0.016
26	-0.002	0.004	0.024	0.019	-0.023
27	0.017	0.025	0.036	-0.008	-0.005
28	0.045	-0.032	-0.013	-0.003	0.014
29	0.030	0.055	-0.001	0.005	0.034
30	-0.014	0.068	0.022	0.004	-0.004
31	-0.010	-0.084	-0.031	-0.008	0.030
32	-0.104	-0.078	0.043	-0.141	0.143
33	0.051	-0.029	-0.012	-0.027	0.013
34	-0.025	-0.011	0.035	0.057	0.034
35	-0.003	-0.015	-0.060	0.032	-0.007
36	0.102	0.033	-0.069	-0.005	0.027
37	-0.105	0.052	0.015	-0.030	0.008
38	0.030	0.120	0.005	0.001	0.016
39	0.040	0.142	0.025	-0.050	0.014
40	0.004	0.008	0.033	0.026	0.010
41	-0.030	-0.006	-0.001	-0.015	-0.016
42	-0.011	0.005	0.034	-0.018	0.040
43	-0.108	0.039	0.016	-0.033	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

11

12

13

14

15

11	1.000				
12	0.301	1.000			
13	0.021	0.312	1.000		
14	-0.168	-0.192	-0.033	1.000	
15	-0.018	-0.141	-0.191	0.232	1.000
16	-0.001	-0.023	0.020	-0.144	-0.233
17	0.084	0.167	0.093	-0.183	-0.062
18	0.013	0.068	0.201	-0.031	-0.181
19	0.004	-0.043	-0.036	0.059	0.188
20	-0.050	-0.023	0.029	0.013	-0.028
21	0.172	0.142	0.059	-0.198	-0.071
22	0.014	0.134	0.137	-0.061	-0.161
23	0.008	-0.045	-0.038	0.150	0.161
24	-0.050	0.036	0.022	-0.026	-0.057
25	-0.013	0.031	0.003	-0.049	-0.046
26	-0.091	-0.183	-0.022	0.176	0.069
27	-0.002	0.002	-0.100	0.056	0.121
28	0.007	0.002	0.055	-0.084	-0.199
29	0.056	0.028	0.021	0.020	0.071
30	0.024	-0.017	0.000	0.090	0.044
31	-0.019	-0.056	-0.025	-0.037	-0.038
32	-0.018	-0.004	-0.054	0.002	0.033
33	-0.033	-0.002	-0.013	0.035	-0.002
34	0.012	0.006	0.023	0.018	0.011
35	-0.001	0.005	0.059	0.009	-0.024
36	-0.022	0.001	0.039	-0.015	0.000
37	0.000	-0.008	0.028	0.023	-0.041
38	0.020	-0.051	0.017	0.053	-0.006
39	-0.038	-0.035	-0.035	-0.011	-0.007
40	-0.003	0.001	-0.005	0.010	0.055
41	-0.032	-0.010	0.056	0.032	0.022
42	-0.016	-0.037	-0.018	-0.001	0.046
43	0.004	-0.005	0.029	0.022	-0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.051	1.000			
18	0.021	0.229	1.000		
19	-0.170	-0.137	-0.187	1.000	
20	0.007	0.076	0.277	-0.215	1.000

21	0.021	0.244	0.116	-0.037	0.056
22	0.019	0.134	0.289	-0.107	0.096
23	-0.236	-0.055	-0.103	0.270	-0.044
24	0.043	0.148	0.144	-0.192	0.293
25	0.027	0.088	0.047	-0.041	0.011
26	-0.021	-0.192	-0.067	0.023	-0.053
27	-0.047	-0.072	-0.244	0.067	-0.081
28	0.175	0.036	0.102	-0.217	0.052
29	-0.003	-0.051	-0.182	0.207	-0.318
30	-0.037	-0.055	-0.035	0.065	-0.107
31	0.061	0.029	0.036	-0.022	0.061
32	0.007	0.008	-0.013	-0.002	-0.014
33	-0.033	-0.028	-0.003	0.006	0.014
34	-0.018	-0.048	0.036	-0.014	-0.043
35	-0.006	-0.016	0.036	0.019	0.023
36	0.045	-0.009	0.013	0.009	-0.046
37	-0.022	0.003	0.005	0.005	0.040
38	-0.016	0.010	0.012	0.033	-0.016
39	-0.063	-0.001	-0.006	0.010	0.030
40	-0.044	-0.003	0.015	0.006	0.023
41	0.058	0.013	0.062	-0.034	-0.001
42	0.010	0.032	0.006	0.008	-0.040
43	-0.024	0.004	0.007	0.004	0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.277	1.000			
23	-0.147	-0.206	1.000		
24	0.087	0.222	-0.197	1.000	
25	0.192	0.188	-0.257	0.269	1.000
26	-0.250	-0.125	0.069	-0.059	-0.055
27	-0.064	-0.281	0.060	-0.082	-0.022
28	0.058	0.098	-0.288	0.084	0.023
29	-0.040	-0.089	0.114	-0.277	-0.066
30	-0.119	-0.166	0.191	-0.282	-0.385
31	-0.010	0.036	-0.016	0.035	0.065
32	0.000	0.030	0.025	0.006	0.050
33	0.022	-0.028	-0.008	-0.010	-0.002
34	0.034	0.060	-0.046	0.040	0.018
35	0.026	0.029	-0.013	0.055	0.028
36	-0.004	0.028	-0.027	-0.005	0.017

37	0.032	-0.006	0.054	-0.016	-0.041
38	0.004	0.008	-0.024	-0.040	0.029
39	-0.027	-0.025	0.052	-0.003	-0.007
40	0.040	-0.010	0.015	0.002	0.020
41	0.052	0.022	-0.052	-0.001	0.024
42	-0.020	-0.014	0.008	-0.018	-0.041
43	0.033	-0.005	0.056	-0.014	-0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.206	1.000			
28	-0.116	-0.175	1.000		
29	0.073	0.227	-0.190	1.000	
30	0.135	0.185	-0.190	0.296	1.000
31	-0.035	-0.209	0.194	-0.288	-0.318
32	-0.016	-0.017	0.007	-0.003	-0.044
33	-0.026	0.003	0.026	-0.012	-0.012
34	0.012	0.006	-0.012	0.036	-0.022
35	-0.032	-0.050	-0.044	-0.017	-0.018
36	-0.010	0.009	-0.032	0.033	-0.032
37	0.013	0.008	0.031	-0.019	0.046
38	0.024	-0.004	-0.057	0.051	0.030
39	0.004	-0.010	-0.021	0.001	0.017
40	0.035	-0.014	-0.043	0.006	0.003
41	-0.018	-0.024	-0.022	0.026	0.003
42	-0.045	-0.001	-0.014	0.011	0.039
43	0.012	0.009	0.032	-0.019	0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.039	1.000			
33	0.046	0.017	1.000		
34	0.017	0.010	0.148	1.000	
35	-0.022	0.062	0.028	-0.003	1.000
36	-0.038	0.032	0.045	0.039	0.100
37	-0.022	-0.106	-0.035	-0.037	-0.014
38	-0.020	-0.196	-0.008	-0.012	-0.029
39	0.019	-0.007	-0.007	0.018	0.010

40	0.000	-0.028	-0.042	-0.044	-0.019
41	-0.032	0.010	-0.058	-0.020	0.038
42	-0.031	0.029	0.022	-0.121	-0.002
43	-0.021	-0.110	-0.031	-0.039	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.411	1.000			
38	-0.065	0.081	1.000		
39	-0.088	-0.072	0.057	1.000	
40	0.010	-0.038	0.028	0.026	1.000
41	0.050	-0.052	-0.038	-0.001	0.234
42	0.042	-0.088	0.001	0.010	0.060
43	-0.413	0.998	0.075	-0.068	-0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.264	1.000	
43	-0.053	-0.089	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.053	38
200	1.021	35
300	1.022	38
400	1.006	34
500	1.005	28

600	1.007	39
700	1.002	39
800	1.003	39
900	1.007	39
1000	1.003	39

Reduced psychological distress, role clarity interaction

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5



PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	PHY15	KES15	CHOICE15
KESCAT16	1.000				
PRAFAC	1.000	1.000			
PHY15	1.000	1.000	1.000		
KES15	1.000	1.000	1.000	1.000	
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.989
PRESS15	0.990	0.990	0.990	0.990	0.989
DUTIES15	0.991	0.991	0.991	0.991	0.990

	Covariance Coverage		
	BULLY15	PRESS15	DUTIES15
BULLY15	0.990		
PRESS15	0.989	0.990	
DUTIES15	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412

	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		3.672	-0.677	1.000	3.54%	3.000	4.000	4.000
	1103.000	1.031	0.049	5.000	20.22%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 43

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.163	0.054	0.002	0.057	0.270	*
CHOICE15	0.027	0.041	0.252	-0.049	0.112	
PRESS15	-0.042	0.041	0.162	-0.119	0.038	
BULLY15	0.111	0.061	0.032	-0.003	0.232	
KES15	0.807	0.095	0.000	0.627	0.993	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.079	0.135	*
CHOICE15	-0.095	0.018	0.000	-0.133	-0.061	*
BULLY15	0.072	0.013	0.000	0.049	0.098	*

PRESS15	0.062	0.019	0.001	0.028	0.099	*
DUTIES15	-0.071	0.018	0.000	-0.105	-0.036	*
PHY15 WITH						
CHOICE15	-0.098	0.028	0.001	-0.152	-0.043	*
BULLY15	0.041	0.020	0.017	0.002	0.077	*
PRESS15	0.118	0.028	0.000	0.068	0.176	*
DUTIES15	-0.055	0.026	0.023	-0.108	0.000	*
CHOICE15 WITH						
BULLY15	-0.137	0.026	0.000	-0.189	-0.086	*
PRESS15	-0.196	0.037	0.000	-0.271	-0.124	*
DUTIES15	0.155	0.035	0.000	0.087	0.223	*
BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.151	0.252	*
DUTIES15	-0.169	0.024	0.000	-0.218	-0.122	*
PRESS15 WITH						
DUTIES15	-0.282	0.035	0.000	-0.351	-0.215	*
Means						
PHY15	-0.001	0.025	0.477	-0.049	0.049	
KES15	0.000	0.017	0.499	-0.032	0.032	
CHOICE15	-0.001	0.033	0.491	-0.067	0.062	
BULLY15	0.000	0.024	0.498	-0.046	0.048	
PRESS15	0.000	0.033	0.496	-0.064	0.065	
Variances						
PHY15	0.704	0.030	0.000	0.648	0.765	*
KES15	0.314	0.013	0.000	0.289	0.341	*
CHOICE15	1.194	0.051	0.000	1.098	1.296	*
BULLY15	0.604	0.026	0.000	0.555	0.656	*
PRESS15	1.163	0.049	0.000	1.068	1.260	*
DUTIES15	0.998	0.043	0.000	0.919	1.092	*
Between Level						
S1 ON						
PRAFAC	-0.039	0.053	0.250	-0.137	0.070	
KESCAT16 ON						
PRAFAC	-0.120	0.053	0.012	-0.230	-0.021	*
DUTIES15	-0.320	0.305	0.163	-0.878	0.329	

PRAFAC WITH DUTIES15	0.014	0.067	0.409	-0.112	0.156	
Means						
PRAFAC	-0.194	0.151	0.102	-0.495	0.097	
DUTIES15	3.708	0.056	0.000	3.595	3.820	*
Intercepts						
S1	-0.075	0.055	0.087	-0.183	0.026	
Thresholds						
KESCAT16\$1	-1.624	1.129	0.081	-3.698	0.740	
Variances						
PRAFAC	1.339	0.263	0.000	0.955	1.991	*
DUTIES15	0.081	0.026	0.000	0.046	0.150	*
Residual Variances						
KESCAT16	0.020	0.033	0.000	0.001	0.126	*
S1	0.011	0.021	0.000	0.001	0.071	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Posterior	One-Tailed	95% C.I.			
		Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%	Significance
Within-Level Standardized Estimates Averaged Over Clusters							
S1   KESCAT16 ON							
DUTIES15	-0.062	0.044	0.085	-0.147	0.026		
KESCAT16 ON							
PHY15	0.119	0.039	0.002	0.042	0.194		*
CHOICE15	0.027	0.039	0.242	-0.048	0.106		
PRESS15	-0.039	0.039	0.160	-0.114	0.037		
BULLY15	0.074	0.041	0.035	-0.004	0.156		
KES15	0.396	0.039	0.000	0.317	0.473		*
KES15 WITH							

PHY15	0.227	0.028	0.000	0.172	0.282	*
CHOICE15	-0.157	0.029	0.000	-0.212	-0.101	*
BULLY15	0.166	0.029	0.000	0.113	0.223	*
PRESS15	0.102	0.030	0.001	0.044	0.161	*
DUTIES15	-0.127	0.030	0.000	-0.184	-0.066	*
PHY15 WITH						
CHOICE15	-0.106	0.030	0.001	-0.162	-0.048	*
BULLY15	0.062	0.030	0.019	0.003	0.117	*
PRESS15	0.132	0.030	0.000	0.074	0.192	*
DUTIES15	-0.066	0.030	0.018	-0.124	-0.003	*
CHOICE15 WITH						
BULLY15	-0.164	0.029	0.000	-0.219	-0.103	*
PRESS15	-0.166	0.030	0.000	-0.225	-0.105	*
DUTIES15	0.142	0.031	0.000	0.081	0.202	*
BULLY15 WITH						
PRESS15	0.240	0.029	0.000	0.183	0.296	*
DUTIES15	-0.217	0.029	0.000	-0.273	-0.159	*
PRESS15 WITH						
DUTIES15	-0.262	0.028	0.000	-0.316	-0.205	*
Means						
PHY15	0.000	0.030	0.498	-0.058	0.058	
KES15	0.000	0.030	0.497	-0.060	0.057	
CHOICE15	-0.001	0.030	0.493	-0.059	0.057	
BULLY15	0.001	0.030	0.493	-0.059	0.059	
PRESS15	0.001	0.030	0.484	-0.058	0.059	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
PRAFAC	-0.370	0.437	0.250	-0.949	0.682	

KESCAT16	ON					
PRAFAC		-0.587	0.220	0.012	-0.948	-0.106 *
DUTIES15		-0.383	0.323	0.163	-0.826	0.410
PRAFAC	WITH					
DUTIES15		0.045	0.188	0.409	-0.319	0.413
Means						
PRAFAC		-0.166	0.128	0.102	-0.419	0.082
DUTIES15		13.005	1.960	0.000	9.542	17.467 *
Intercepts						
S1		-0.570	0.568	0.087	-1.941	0.224
Variances						
PRAFAC		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
KESCAT16		0.372	0.252	0.000	0.027	0.907 *
S1		0.805	0.271	0.000	0.093	0.999 *

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.234	0.036	0.000	0.168	0.307

#### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.628	0.252	0.000	0.093	0.973

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.195	0.271	0.000	0.001	0.907

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0

BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>PRESS15</u>	<u></u>
0	
<u>DUTIES15</u>	<u></u>
0	0

ALPHA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>PRESS15</u>	<u></u>
5	
<u>DUTIES15</u>	<u></u>
	0

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0



PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
KESCAT16	10	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

# PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

KESCAT16
43

NU				
	KESCAT16	PRAFAC	DUTIES15	
	<hr/> 0	<hr/> 0	<hr/> 0	
LAMBDA				
	S1	KESCAT16	PRAFAC	DUTIES15
KESCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0
THETA				
	KESCAT16	PRAFAC	DUTIES15	
KESCAT16	<hr/> 0	<hr/>	<hr/>	
PRAFAC	0	0		
DUTIES15	0	0	0	
ALPHA				
	S1	KESCAT16	PRAFAC	DUTIES15
	<hr/> 32	<hr/> 0	<hr/> 33	<hr/> 34
BETA				
	S1	KESCAT16	PRAFAC	DUTIES15
S1	<hr/> 0	<hr/> 0	<hr/> 35	<hr/> 0
KESCAT16	0	0	36	37
PRAFAC	0	0	0	0
DUTIES15	0	0	0	0
PSI				
	S1	KESCAT16	PRAFAC	DUTIES15
S1	<hr/> 38	<hr/>	<hr/>	<hr/>
KESCAT16	0	39		
PRAFAC	0	0	40	
DUTIES15	0	0	41	42

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

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0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/> 0.000	<hr/> 0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000

DUTIES15	0.000	1.000
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	THETA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	THETA	
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	<u>          </u>
DUTIES15	0.000	0.000

	ALPHA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

	ALPHA	
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	BETA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	-0.352

NU			
	KESCAT16	PRAFAC	DUTIES15

	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
	LAMBDA			
	S1	KESCAT16	PRAFAC	DUTIES15
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
PRAFAC	0.000	0.000	1.000	0.000
DUTIES15	0.000	0.000	0.000	1.000
	THETA			
	KESCAT16	PRAFAC	DUTIES15	
KESCAT16	<u>0.000</u>			
PRAFAC	0.000	0.000		
DUTIES15	0.000	0.000	0.000	
	ALPHA			
	S1	KESCAT16	PRAFAC	DUTIES15
	<u>0.000</u>	<u>0.000</u>	<u>-0.033</u>	<u>3.672</u>
	BETA			
	S1	KESCAT16	PRAFAC	DUTIES15
S1	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KESCAT16	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000
	PSI			
	S1	KESCAT16	PRAFAC	DUTIES15
S1	<u>1.000</u>			
KESCAT16	0.000	1.000		
PRAFAC	0.000	0.000	0.469	
DUTIES15	0.000	0.000	0.000	0.516

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 40~IW(1.000,3)	infinity	infinity	infinity
Parameter 41~IW(0.000,3)	infinity	infinity	infinity

Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.625715D-03				
2	0.855927D-04	0.273162D-03			
3	-0.555678D-04	-0.734755D-04	0.106415D-02		
4	0.166311D-04	0.637115D-04	-0.970784D-04	0.568556D-03	
5	0.699770D-04	0.678643D-04	-0.187886D-03	0.173600D-03	0.107173D-02
6	-0.535478D-04	0.727769D-05	0.972222D-04	0.119350D-04	-0.670019D-04
7	-0.575707D-05	-0.168263D-04	-0.997407D-04	0.112468D-04	0.170678D-04
8	-0.124361D-04	0.320908D-05	0.151435D-04	-0.872822D-05	0.613563D-05
9	-0.430197D-04	0.444949D-04	-0.571316D-06	-0.707673D-04	-0.117448D-04
10	-0.200696D-04	-0.144372D-04	-0.114191D-05	-0.250984D-04	-0.162161D-04
11	0.165759D-04	0.788556D-05	-0.729993D-05	0.315374D-04	-0.508408D-04
12	-0.105602D-04	-0.456308D-05	0.897734D-05	-0.241700D-05	-0.262268D-04
13	0.476118D-05	0.663574D-05	-0.121875D-04	0.172131D-05	-0.571248D-05
14	-0.516406D-05	0.737610D-05	-0.194863D-04	-0.714586D-05	-0.370846D-05
15	-0.922351D-05	-0.274971D-05	0.133239D-04	-0.347982D-05	-0.211435D-04
16	0.159747D-04	0.868063D-05	0.427038D-04	0.273406D-04	-0.990462D-05
17	-0.941422D-05	-0.333092D-05	-0.203908D-05	-0.957971D-05	-0.116965D-04
18	0.396843D-05	0.410211D-05	0.149703D-04	-0.534793D-05	-0.142040D-04
19	0.150440D-04	0.852731D-05	0.315364D-05	0.303032D-04	0.925548D-05
20	-0.172092D-04	0.566140D-05	-0.230186D-04	-0.178654D-04	0.185508D-04
21	-0.160322D-04	0.110005D-04	0.131148D-04	0.143065D-04	-0.533256D-05
22	-0.524615D-05	0.261306D-06	0.548301D-04	-0.221915D-04	-0.146157D-04
23	-0.935973D-05	0.133322D-05	-0.336034D-04	-0.235138D-05	-0.669469D-05
24	-0.174761D-04	0.437112D-05	0.181290D-04	-0.217376D-04	-0.289307D-04
25	0.303567D-05	-0.179413D-04	0.509554D-04	-0.110047D-04	-0.457419D-04
26	0.249690D-04	0.297103D-05	0.144989D-04	0.114729D-05	0.177563D-04
27	0.596334D-05	-0.654305D-05	-0.673978D-05	0.232253D-04	-0.120458D-04
28	-0.190291D-04	-0.152762D-05	0.848076D-05	-0.155088D-04	0.368707D-04
29	0.130704D-04	-0.102795D-04	0.300879D-04	0.239691D-04	0.144658D-04
30	-0.208250D-04	-0.895840D-05	0.284460D-04	0.234017D-04	0.416332D-04
31	0.319731D-04	0.216606D-04	-0.839403D-04	0.297646D-04	-0.224416D-05
32	-0.860843D-05	-0.130256D-04	0.484559D-04	-0.505687D-04	0.208836D-04
33	0.220679D-04	0.120791D-04	0.139724D-03	-0.135229D-03	0.292246D-04
34	0.268869D-04	-0.528447D-04	0.150363D-03	-0.142797D-03	-0.176046D-03



35	0.232917D-04	-0.345506D-05	0.385639D-05	0.233147D-04	-0.489352D-04
36	-0.351969D-04	-0.256441D-05	0.592160D-04	0.239281D-04	0.738630D-04
37	0.206622D-03	0.259783D-04	-0.127287D-03	-0.228578D-03	-0.140699D-03
38	-0.884393D-05	-0.744008D-05	-0.470817D-05	0.165565D-04	0.211724D-04
39	0.442865D-04	-0.821697D-05	0.127426D-04	-0.594904D-05	0.667318D-06
40	0.132034D-03	0.191208D-03	0.100847D-04	0.452653D-04	-0.422233D-03
41	0.488894D-05	0.121714D-04	-0.184717D-05	0.519774D-04	-0.376175D-04
42	-0.160940D-04	-0.225270D-04	-0.301204D-05	-0.203193D-04	0.149301D-04
43	0.727892D-03	0.103376D-03	-0.505071D-03	-0.804934D-03	-0.476866D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.290521D-02				
7	-0.381609D-03	0.903310D-02			
8	0.409603D-04	0.360708D-03	0.169480D-02		
9	0.202100D-03	-0.486755D-03	0.244168D-03	0.369890D-02	
10	-0.311533D-03	-0.175345D-03	0.158540D-03	-0.369990D-03	0.170745D-02
11	-0.344715D-04	-0.110569D-03	-0.435867D-04	-0.108678D-03	-0.403725D-04
12	0.557436D-05	0.405421D-04	-0.124606D-04	-0.515938D-04	-0.881825D-05
13	-0.187085D-04	0.260610D-04	-0.144893D-04	-0.569786D-04	0.299027D-05
14	-0.765815D-04	0.323073D-04	0.568461D-05	0.157644D-04	0.126681D-04
15	-0.269235D-04	0.478280D-04	0.441651D-04	0.752439D-05	0.205112D-04
16	0.115604D-03	-0.747612D-04	-0.121665D-03	0.103689D-03	-0.858404D-04
17	-0.931205D-05	0.171219D-04	-0.319890D-05	-0.117090D-04	0.387589D-04
18	-0.177404D-04	-0.279839D-04	0.326509D-05	-0.144421D-04	0.273822D-04
19	0.141428D-04	-0.233558D-04	0.306612D-05	0.421553D-04	-0.198481D-04
20	-0.279553D-04	0.227810D-04	0.281537D-04	-0.213273D-04	-0.234543D-04
21	0.357333D-04	0.219803D-04	-0.561691D-04	-0.629501D-04	0.322896D-04
22	-0.132694D-04	-0.233422D-04	-0.182018D-04	-0.261427D-04	0.704988D-05
23	-0.533200D-04	-0.139119D-03	0.105373D-04	0.349815D-04	-0.338750D-04
24	0.769821D-05	-0.422683D-04	-0.290414D-04	-0.948465D-05	0.642686D-05
25	0.333373D-04	-0.338323D-04	-0.237279D-04	0.742877D-04	0.140474D-05
26	-0.227445D-04	-0.515572D-05	0.303165D-04	0.188156D-04	-0.422802D-04
27	0.157071D-04	0.298491D-04	0.268842D-04	0.581630D-05	-0.129786D-04
28	0.889755D-04	-0.782352D-04	-0.220508D-04	-0.404318D-05	-0.146192D-04
29	0.397299D-04	0.116045D-03	-0.829586D-05	0.120957D-04	-0.885526D-05
30	-0.337886D-04	0.140572D-03	0.464080D-04	-0.900137D-05	0.577013D-05
31	-0.769171D-05	-0.282261D-03	-0.694069D-04	-0.292981D-05	0.984442D-04
32	-0.669162D-04	0.408731D-04	-0.255732D-03	0.354844D-03	0.405117D-03
33	0.430861D-03	-0.248000D-03	-0.731287D-04	-0.223270D-03	0.187193D-03
34	-0.439099D-04	-0.462106D-04	0.715089D-04	0.150959D-03	0.921571D-05
35	-0.103594D-03	0.975511D-04	-0.187993D-03	0.128020D-03	0.592928D-05

36	0.195157D-03	0.293820D-03	-0.698897D-04	-0.383885D-04	-0.179245D-03
37	-0.322866D-03	-0.457326D-03	-0.882849D-04	-0.575469D-03	-0.127651D-03
38	0.685844D-05	0.200176D-03	0.689946D-05	-0.524440D-04	0.227346D-04
39	0.701277D-04	0.414817D-03	0.651756D-04	-0.116342D-03	-0.292331D-04
40	-0.120380D-04	-0.720497D-04	0.536065D-03	0.517200D-03	0.188659D-03
41	-0.127552D-03	-0.998719D-04	-0.108792D-04	-0.805988D-04	-0.395792D-04
42	-0.167643D-04	0.440371D-04	0.348919D-04	-0.182449D-04	0.397830D-04
43	-0.134838D-02	-0.297807D-02	-0.318526D-03	-0.239856D-02	-0.504046D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.887237D-03				
12	0.125820D-03	0.198289D-03			
13	0.892938D-05	0.578656D-04	0.174013D-03		
14	-0.139815D-03	-0.753453D-04	-0.122061D-04	0.781346D-03	
15	-0.101475D-04	-0.361207D-04	-0.458337D-04	0.118487D-03	0.332947D-03
16	-0.177381D-05	-0.165260D-04	0.142164D-04	-0.203745D-03	-0.215317D-03
17	0.489968D-04	0.456016D-04	0.234146D-04	-0.998906D-04	-0.221236D-04
18	0.510343D-05	0.121321D-04	0.340235D-04	-0.113181D-04	-0.426139D-04
19	0.305844D-05	-0.154511D-04	-0.118945D-04	0.423015D-04	0.885089D-04
20	-0.380669D-04	-0.845378D-05	0.987403D-05	0.903671D-05	-0.136039D-04
21	0.145045D-03	0.518017D-04	0.189275D-04	-0.162047D-03	-0.357326D-04
22	0.964018D-05	0.365825D-04	0.286477D-04	-0.350816D-04	-0.566368D-04
23	0.960592D-05	-0.244520D-04	-0.171607D-04	0.170457D-03	0.104318D-03
24	-0.311849D-04	0.116685D-04	0.646436D-05	-0.162988D-04	-0.271795D-04
25	-0.166485D-04	0.207275D-04	0.303010D-05	-0.615682D-04	-0.493233D-04
26	-0.687254D-04	-0.683067D-04	-0.642233D-05	0.131806D-03	0.334240D-04
27	-0.233821D-05	0.238912D-06	-0.220618D-04	0.280201D-04	0.406979D-04
28	0.396776D-05	0.191524D-05	0.236707D-04	-0.874314D-04	-0.126384D-03
29	0.343487D-04	0.100432D-04	0.649185D-05	0.136231D-04	0.328088D-04
30	0.249145D-04	-0.858829D-05	-0.564347D-05	0.775162D-04	0.390365D-04
31	-0.234355D-04	-0.307539D-04	-0.109881D-04	-0.391717D-04	-0.314221D-04
32	-0.310505D-04	-0.178837D-04	-0.411247D-04	-0.920411D-05	0.523045D-04
33	-0.152669D-03	-0.411158D-05	-0.264291D-04	0.147321D-03	-0.365222D-05
34	0.216895D-04	0.770960D-05	0.153421D-04	0.150639D-04	0.109438D-04
35	0.433905D-04	-0.921034D-06	0.226364D-04	-0.757835D-05	0.228232D-06
36	-0.223857D-04	-0.104763D-04	0.315193D-04	-0.175345D-04	-0.228251D-04
37	-0.528199D-04	0.716328D-04	0.951974D-04	-0.796969D-04	-0.320911D-03
38	0.161581D-05	-0.112268D-04	0.473421D-05	0.331507D-04	-0.611152D-05
39	-0.376018D-04	-0.161883D-04	-0.137041D-04	-0.630397D-05	-0.129456D-04
40	0.300664D-04	-0.307499D-04	-0.906590D-04	-0.402964D-04	0.246092D-03
41	-0.547198D-04	-0.858691D-05	0.477094D-04	0.417718D-04	0.346649D-04

42 -0.167610D-04 -0.167864D-04 -0.783279D-05 -0.118991D-04 0.349417D-04  
 43 -0.832233D-04 0.304527D-03 0.371363D-03 -0.319820D-03 -0.123068D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.256869D-02				
17	0.510706D-04	0.381349D-03			
18	0.143612D-04	0.575326D-04	0.166619D-03		
19	-0.223301D-03	-0.687374D-04	-0.622942D-04	0.665957D-03	
20	0.101232D-04	0.373381D-04	0.921601D-04	-0.141470D-03	0.658843D-03
21	0.333341D-04	0.134223D-03	0.397684D-04	-0.235198D-04	0.370035D-04
22	0.223745D-04	0.503767D-04	0.687767D-04	-0.523696D-04	0.461430D-04
23	-0.466298D-03	-0.448444D-04	-0.451057D-04	0.254833D-03	-0.372674D-04
24	0.491597D-04	0.766243D-04	0.435656D-04	-0.131341D-03	0.197085D-03
25	0.745168D-04	0.942819D-04	0.319657D-04	-0.552369D-04	0.160303D-04
26	-0.314722D-04	-0.943729D-04	-0.209657D-04	0.134312D-04	-0.370414D-04
27	-0.426225D-04	-0.249825D-04	-0.523254D-04	0.300853D-04	-0.342816D-04
28	0.314424D-03	0.260322D-04	0.410131D-04	-0.175903D-03	0.405149D-04
29	-0.105348D-05	-0.233720D-04	-0.564640D-04	0.128550D-03	-0.193191D-03
30	-0.848450D-04	-0.457197D-04	-0.220834D-04	0.563223D-04	-0.104367D-03
31	0.152879D-03	0.260982D-04	0.230059D-04	-0.176214D-04	0.675163D-04
32	0.581529D-04	0.202222D-04	-0.573788D-05	0.381878D-04	-0.477290D-04
33	-0.246613D-03	-0.837552D-04	-0.849774D-05	0.266073D-04	0.526161D-04
34	-0.633173D-04	-0.435298D-04	0.219811D-04	-0.193087D-04	-0.464711D-04
35	-0.480383D-04	0.100669D-05	0.227951D-04	0.192493D-04	0.191077D-04
36	0.123347D-03	-0.140977D-05	0.178829D-04	0.184167D-04	-0.428059D-04
37	-0.228609D-03	0.774433D-04	0.152752D-03	0.247585D-03	0.150911D-03
38	-0.158913D-04	0.100951D-04	0.931942D-05	0.101646D-04	0.145994D-04
39	-0.860146D-04	-0.142296D-05	-0.630882D-05	0.101404D-04	0.170384D-04
40	-0.732677D-03	0.205350D-04	0.366764D-04	0.290728D-04	0.192421D-03
41	0.170363D-03	0.136194D-04	0.327493D-04	-0.390911D-04	0.888857D-05
42	-0.379245D-04	0.902225D-05	-0.113017D-04	0.662395D-05	-0.422702D-04
43	-0.853953D-03	0.317580D-03	0.602213D-03	0.893309D-03	0.522527D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.760640D-03				
22	0.135640D-03	0.343724D-03			
23	-0.149382D-03	-0.137601D-03	0.134092D-02		
24	0.615009D-04	0.105372D-03	-0.166742D-03	0.654623D-03	

25	0.271281D-03	0.154837D-03	-0.431066D-03	0.330397D-03	0.240688D-02
26	-0.181282D-03	-0.589571D-04	0.689193D-04	-0.373620D-04	-0.864890D-04
27	-0.249026D-04	-0.869616D-04	0.410505D-04	-0.305607D-04	-0.145660D-04
28	0.648271D-04	0.602272D-04	-0.379721D-03	0.656980D-04	0.500138D-04
29	-0.268381D-04	-0.417413D-04	0.939130D-04	-0.167912D-03	-0.707835D-04
30	-0.118563D-03	-0.101696D-03	0.235484D-03	-0.227334D-03	-0.616342D-03
31	-0.102684D-04	0.296465D-04	-0.431704D-04	0.195764D-04	0.116423D-03
32	-0.173115D-04	-0.719883D-05	0.732452D-04	-0.262813D-04	0.105899D-03
33	0.956778D-04	-0.788505D-04	-0.655425D-04	-0.282716D-04	-0.867820D-05
34	0.178362D-04	0.420021D-04	0.238609D-04	0.171799D-04	-0.108443D-03
35	0.133542D-04	0.793993D-05	-0.105754D-04	0.588796D-04	0.526052D-04
36	0.328024D-04	0.326887D-04	0.566326D-05	-0.246960D-04	0.413851D-04
37	0.436695D-04	-0.124803D-03	0.285501D-03	-0.105110D-03	-0.711893D-03
38	-0.736931D-05	-0.334992D-05	-0.132748D-04	-0.328341D-05	0.214181D-04
39	-0.243150D-04	-0.214278D-04	0.494654D-04	-0.240719D-04	-0.308525D-04
40	0.350027D-03	-0.399810D-04	0.147931D-03	0.364120D-04	0.465832D-03
41	0.259493D-04	-0.205529D-04	0.164427D-04	0.119502D-04	-0.174502D-05
42	0.202900D-04	-0.191885D-04	-0.274056D-04	-0.366488D-05	0.339841D-04
43	0.169201D-03	-0.434465D-03	0.111729D-02	-0.363651D-03	-0.262384D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.697710D-03				
27	0.961823D-04	0.308423D-03			
28	-0.119640D-03	-0.112460D-03	0.119233D-02		
29	0.474176D-04	0.947141D-04	-0.160806D-03	0.575122D-03	
30	0.147658D-03	0.999501D-04	-0.262575D-03	0.245229D-03	0.119463D-02
31	-0.544618D-04	-0.158075D-03	0.322706D-03	-0.288774D-03	-0.484594D-03
32	0.102321D-04	-0.413398D-05	0.605166D-05	0.250105D-04	-0.422782D-04
33	-0.107719D-03	0.906020D-05	0.154880D-03	-0.545029D-04	-0.956591D-04
34	0.506493D-04	0.293347D-04	-0.109498D-03	0.676566D-04	0.113976D-03
35	-0.925273D-05	-0.195473D-04	-0.846756D-04	-0.583058D-05	0.608476D-05
36	-0.100632D-04	0.348907D-05	-0.774410D-04	0.904967D-05	-0.719435D-04
37	0.977189D-04	0.139879D-03	0.353872D-03	0.265130D-04	0.333152D-03
38	-0.721999D-06	-0.192829D-05	-0.252648D-04	0.208659D-04	0.556597D-05
39	-0.844535D-06	-0.956528D-05	-0.509811D-05	0.750567D-05	0.109673D-04
40	0.200733D-03	-0.101663D-03	-0.351647D-03	-0.465852D-04	-0.558453D-04
41	0.526332D-04	0.242834D-04	-0.126860D-03	0.306003D-04	-0.332820D-04
42	-0.519049D-05	0.169986D-04	-0.663558D-04	0.154399D-04	0.403508D-04
43	0.360962D-03	0.539178D-03	0.132758D-02	0.903554D-04	0.112310D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.188982D-02				
32	0.864313D-04	0.302403D-02			
33	0.325669D-03	0.109843D-03	0.228261D-01		
34	0.728404D-05	0.956996D-04	0.193299D-03	0.316669D-02	
35	-0.764490D-04	0.337840D-03	0.721456D-04	-0.570377D-04	0.276315D-02
36	-0.114058D-03	-0.711202D-04	0.316439D-03	0.121852D-04	-0.137865D-03
37	-0.321959D-03	-0.861657D-03	-0.181459D-02	0.763603D-04	-0.521938D-03
38	-0.725156D-05	-0.195285D-03	0.547478D-05	-0.235414D-04	-0.288042D-04
39	0.168132D-04	-0.460568D-04	-0.860272D-04	0.435454D-04	-0.108939D-04
40	0.727393D-04	-0.284878D-03	-0.147173D-02	-0.619745D-03	-0.405160D-03
41	-0.961700D-04	0.321551D-05	-0.606411D-03	-0.100263D-03	0.184699D-03
42	-0.785047D-04	0.980145D-05	0.448146D-04	-0.439736D-04	0.972972D-05
43	-0.114393D-02	-0.325456D-02	-0.632538D-02	0.356553D-04	-0.200702D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.276375D-02				
37	0.173915D-02	0.928733D-01			
38	-0.345997D-04	0.191222D-03	0.423050D-03		
39	-0.152465D-03	0.330016D-03	0.288334D-04	0.110577D-02	
40	0.150935D-04	-0.941238D-03	0.197187D-03	0.148578D-03	0.689807D-01
41	0.217035D-03	-0.930155D-03	-0.305950D-04	-0.208236D-04	0.100508D-02
42	-0.337655D-04	-0.236979D-03	0.145696D-04	0.913023D-05	0.208692D-03
43	0.626651D-02	0.343421D+00	0.623309D-03	0.122429D-02	-0.418531D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	0.442545D-02	
42	0.163482D-03	0.687408D-03
43	-0.346933D-02	-0.950835D-03

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4
1	1.000			
2	0.207	1.000		

3	-0.068	-0.136	1.000		
4	0.028	0.162	-0.125	1.000	
5	0.085	0.125	-0.176	0.222	1.000
6	-0.040	0.008	0.055	0.009	-0.038
7	-0.002	-0.011	-0.032	0.005	0.005
8	-0.012	0.005	0.011	-0.009	0.005
9	-0.028	0.044	0.000	-0.049	-0.006
10	-0.019	-0.021	-0.001	-0.025	-0.012
11	0.022	0.016	-0.008	0.044	-0.052
12	-0.030	-0.020	0.020	-0.007	-0.057
13	0.014	0.030	-0.028	0.005	-0.013
14	-0.007	0.016	-0.021	-0.011	-0.004
15	-0.020	-0.009	0.022	-0.008	-0.035
16	0.013	0.010	0.026	0.023	-0.006
17	-0.019	-0.010	-0.003	-0.021	-0.018
18	0.012	0.019	0.036	-0.017	-0.034
19	0.023	0.020	0.004	0.049	0.011
20	-0.027	0.013	-0.027	-0.029	0.022
21	-0.023	0.024	0.015	0.022	-0.006
22	-0.011	0.001	0.091	-0.050	-0.024
23	-0.010	0.002	-0.028	-0.003	-0.006
24	-0.027	0.010	0.022	-0.036	-0.035
25	0.002	-0.022	0.032	-0.009	-0.028
26	0.038	0.007	0.017	0.002	0.021
27	0.014	-0.023	-0.012	0.055	-0.021
28	-0.022	-0.003	0.008	-0.019	0.033
29	0.022	-0.026	0.038	0.042	0.018
30	-0.024	-0.016	0.025	0.028	0.037
31	0.029	0.030	-0.059	0.029	-0.002
32	-0.006	-0.014	0.027	-0.039	0.012
33	0.006	0.005	0.028	-0.038	0.006
34	0.019	-0.057	0.082	-0.106	-0.096
35	0.018	-0.004	0.002	0.019	-0.028
36	-0.027	-0.003	0.035	0.019	0.043
37	0.027	0.005	-0.013	-0.031	-0.014
38	-0.017	-0.022	-0.007	0.034	0.031
39	0.053	-0.015	0.012	-0.008	0.001
40	0.020	0.044	0.001	0.007	-0.049
41	0.003	0.011	-0.001	0.033	-0.017
42	-0.025	-0.052	-0.004	-0.033	0.017
43	0.026	0.006	-0.014	-0.030	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.074	1.000			
8	0.018	0.092	1.000		
9	0.062	-0.084	0.098	1.000	
10	-0.140	-0.045	0.093	-0.147	1.000
11	-0.021	-0.039	-0.036	-0.060	-0.033
12	0.007	0.030	-0.021	-0.060	-0.015
13	-0.026	0.021	-0.027	-0.071	0.005
14	-0.051	0.012	0.005	0.009	0.011
15	-0.027	0.028	0.059	0.007	0.027
16	0.042	-0.016	-0.058	0.034	-0.041
17	-0.009	0.009	-0.004	-0.010	0.048
18	-0.025	-0.023	0.006	-0.018	0.051
19	0.010	-0.010	0.003	0.027	-0.019
20	-0.020	0.009	0.027	-0.014	-0.022
21	0.024	0.008	-0.049	-0.038	0.028
22	-0.013	-0.013	-0.024	-0.023	0.009
23	-0.027	-0.040	0.007	0.016	-0.022
24	0.006	-0.017	-0.028	-0.006	0.006
25	0.013	-0.007	-0.012	0.025	0.001
26	-0.016	-0.002	0.028	0.012	-0.039
27	0.017	0.018	0.037	0.005	-0.018
28	0.048	-0.024	-0.016	-0.002	-0.010
29	0.031	0.051	-0.008	0.008	-0.009
30	-0.018	0.043	0.033	-0.004	0.004
31	-0.003	-0.068	-0.039	-0.001	0.055
32	-0.023	0.008	-0.113	0.106	0.178
33	0.053	-0.017	-0.012	-0.024	0.030
34	-0.014	-0.009	0.031	0.044	0.004
35	-0.037	0.020	-0.087	0.040	0.003
36	0.069	0.059	-0.032	-0.012	-0.083
37	-0.020	-0.016	-0.007	-0.031	-0.010
38	0.006	0.102	0.008	-0.042	0.027
39	0.039	0.131	0.048	-0.058	-0.021
40	-0.001	-0.003	0.050	0.032	0.017
41	-0.036	-0.016	-0.004	-0.020	-0.014
42	-0.012	0.018	0.032	-0.011	0.037
43	-0.022	-0.028	-0.007	-0.035	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

11

12

13

14

15

11	1.000				
12	0.300	1.000			
13	0.023	0.312	1.000		
14	-0.168	-0.191	-0.033	1.000	
15	-0.019	-0.141	-0.190	0.232	1.000
16	-0.001	-0.023	0.021	-0.144	-0.233
17	0.084	0.166	0.091	-0.183	-0.062
18	0.013	0.067	0.200	-0.031	-0.181
19	0.004	-0.043	-0.035	0.059	0.188
20	-0.050	-0.023	0.029	0.013	-0.029
21	0.177	0.133	0.052	-0.210	-0.071
22	0.017	0.140	0.117	-0.068	-0.167
23	0.009	-0.047	-0.036	0.167	0.156
24	-0.041	0.032	0.019	-0.023	-0.058
25	-0.011	0.030	0.005	-0.045	-0.055
26	-0.087	-0.184	-0.018	0.179	0.069
27	-0.004	0.001	-0.095	0.057	0.127
28	0.004	0.004	0.052	-0.091	-0.201
29	0.048	0.030	0.021	0.020	0.075
30	0.024	-0.018	-0.012	0.080	0.062
31	-0.018	-0.050	-0.019	-0.032	-0.040
32	-0.019	-0.023	-0.057	-0.006	0.052
33	-0.034	-0.002	-0.013	0.035	-0.001
34	0.013	0.010	0.021	0.010	0.011
35	0.028	-0.001	0.033	-0.005	0.000
36	-0.014	-0.014	0.045	-0.012	-0.024
37	-0.006	0.017	0.024	-0.009	-0.058
38	0.003	-0.039	0.017	0.058	-0.016
39	-0.038	-0.035	-0.031	-0.007	-0.021
40	0.004	-0.008	-0.026	-0.005	0.051
41	-0.028	-0.009	0.054	0.022	0.029
42	-0.021	-0.045	-0.023	-0.016	0.073
43	-0.002	0.019	0.025	-0.010	-0.060

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.052	1.000			
18	0.022	0.228	1.000		
19	-0.171	-0.136	-0.187	1.000	
20	0.008	0.074	0.278	-0.214	1.000



21	0.024	0.249	0.112	-0.033	0.052
22	0.024	0.139	0.287	-0.109	0.097
23	-0.251	-0.063	-0.095	0.270	-0.040
24	0.038	0.153	0.132	-0.199	0.300
25	0.030	0.098	0.050	-0.044	0.013
26	-0.024	-0.183	-0.061	0.020	-0.055
27	-0.048	-0.073	-0.231	0.066	-0.076
28	0.180	0.039	0.092	-0.197	0.046
29	-0.001	-0.050	-0.182	0.208	-0.314
30	-0.048	-0.068	-0.049	0.063	-0.118
31	0.069	0.031	0.041	-0.016	0.061
32	0.021	0.019	-0.008	0.027	-0.034
33	-0.032	-0.028	-0.004	0.007	0.014
34	-0.022	-0.040	0.030	-0.013	-0.032
35	-0.018	0.001	0.034	0.014	0.014
36	0.046	-0.001	0.026	0.014	-0.032
37	-0.015	0.013	0.039	0.031	0.019
38	-0.015	0.025	0.035	0.019	0.028
39	-0.051	-0.002	-0.015	0.012	0.020
40	-0.055	0.004	0.011	0.004	0.029
41	0.051	0.010	0.038	-0.023	0.005
42	-0.029	0.018	-0.033	0.010	-0.063
43	-0.015	0.014	0.041	0.031	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.265	1.000			
23	-0.148	-0.203	1.000		
24	0.087	0.222	-0.178	1.000	
25	0.200	0.170	-0.240	0.263	1.000
26	-0.249	-0.120	0.071	-0.055	-0.067
27	-0.051	-0.267	0.064	-0.068	-0.017
28	0.068	0.094	-0.300	0.074	0.030
29	-0.041	-0.094	0.107	-0.274	-0.060
30	-0.124	-0.159	0.186	-0.257	-0.363
31	-0.009	0.037	-0.027	0.018	0.055
32	-0.011	-0.007	0.036	-0.019	0.039
33	0.023	-0.028	-0.012	-0.007	-0.001
34	0.011	0.040	0.012	0.012	-0.039
35	0.009	0.008	-0.005	0.044	0.020
36	0.023	0.034	0.003	-0.018	0.016

37	0.005	-0.022	0.026	-0.013	-0.048
38	-0.013	-0.009	-0.018	-0.006	0.021
39	-0.027	-0.035	0.041	-0.028	-0.019
40	0.048	-0.008	0.015	0.005	0.036
41	0.014	-0.017	0.007	0.007	-0.001
42	0.028	-0.039	-0.029	-0.005	0.026
43	0.005	-0.021	0.027	-0.013	-0.047

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.207	1.000			
28	-0.131	-0.185	1.000		
29	0.075	0.225	-0.194	1.000	
30	0.162	0.165	-0.220	0.296	1.000
31	-0.047	-0.207	0.215	-0.277	-0.323
32	0.007	-0.004	0.003	0.019	-0.022
33	-0.027	0.003	0.030	-0.015	-0.018
34	0.034	0.030	-0.056	0.050	0.059
35	-0.007	-0.021	-0.047	-0.005	0.003
36	-0.007	0.004	-0.043	0.007	-0.040
37	0.012	0.026	0.034	0.004	0.032
38	-0.001	-0.005	-0.036	0.042	0.008
39	-0.001	-0.016	-0.004	0.009	0.010
40	0.029	-0.022	-0.039	-0.007	-0.006
41	0.030	0.021	-0.055	0.019	-0.014
42	-0.007	0.037	-0.073	0.025	0.045
43	0.012	0.027	0.034	0.003	0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.036	1.000			
33	0.050	0.013	1.000		
34	0.003	0.031	0.023	1.000	
35	-0.033	0.117	0.009	-0.019	1.000
36	-0.050	-0.025	0.040	0.004	-0.050
37	-0.024	-0.051	-0.039	0.004	-0.033
38	-0.008	-0.173	0.002	-0.020	-0.027
39	0.012	-0.025	-0.017	0.023	-0.006

40	0.006	-0.020	-0.037	-0.042	-0.029
41	-0.033	0.001	-0.060	-0.027	0.053
42	-0.069	0.007	0.011	-0.030	0.007
43	-0.023	-0.052	-0.037	0.001	-0.034

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.109	1.000			
38	-0.032	0.031	1.000		
39	-0.087	0.033	0.042	1.000	
40	0.001	-0.012	0.037	0.017	1.000
41	0.062	-0.046	-0.022	-0.009	0.058
42	-0.024	-0.030	0.027	0.010	0.030
43	0.106	0.999	0.027	0.033	-0.014

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43
41	1.000		
42	0.094	1.000	
43	-0.046	-0.032	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.042	19
200	1.027	35
300	1.017	35
400	1.005	34
500	1.007	32

600	1.005	39
700	1.004	35
800	1.004	39
900	1.006	39
1000	1.002	25

These are models with the Kessler score and physical health score in 2016 treated as continuous not dichotomous variables, with 2015 values of Kessler and physical health interacting with health and wellbeing practices (the respective cross-level interactions are represented by the regression of health and wellbeing practices on the random slopes (s1 for 2015 Kessler and s2 for 2015 physical health)).

Physical health model

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

11	22
18	166
26	80
28	74 205
31	71
34	65
35	192
40	106 182
41	228
45	72 170
47	50
50	165 30 75 181
53	173
57	107
59	108 40
60	81 226 84
63	114
66	93
68	61 4
69	162
70	83 169
71	206
72	116 36
73	69
76	92
79	68
84	174
85	145 154
88	152
95	6
104	144 98 2

114	178
118	156
123	202
131	142
159	122
218	24
239	209
283	204
331	125
472	217
954	110
1083	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHY15	KES15	PHY16	CHOICE15	BULLY15
PHY15	0.958				
KES15	0.932	0.932			
PHY16	0.958	0.932	1.000		
CHOICE15	0.925	0.925	0.925	0.925	
BULLY15	0.925	0.925	0.925	0.925	0.925
PRESS15	0.925	0.925	0.925	0.925	0.925
DUTIES15	0.926	0.926	0.926	0.925	0.925
PRAFAC	0.958	0.932	1.000	0.925	0.925

	Covariance Coverage		
	PRESS15	DUTIES15	PRAFAC
PRESS15	0.925		
DUTIES15	0.925	0.926	
PRAFAC	0.925	0.926	1.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	1.956	0.559	1.000	28.98%	1.000	2.000	2.000
6676.000	0.605	0.164	5.000	0.24%	2.000	3.000	
KES15	0.605	1.665	0.000	18.88%	0.167	0.333	0.500
6495.000	0.391	3.340	4.000	0.11%	0.500	1.000	
PHY16	1.968	0.532	1.000	28.85%	1.000	2.000	2.000
6968.000	0.615	0.123	5.000	0.32%	2.000	3.000	
CHOICE15	0.000	-0.355	-2.151	8.93%	-1.151	-0.151	-0.151
6447.000	1.137	-0.460	1.849	7.91%	0.849	0.849	
BULLY15	0.000	3.100	-0.200	85.49%	-0.200	-0.200	-0.200
6446.000	0.292	10.556	3.800	0.16%	-0.200	-0.200	
PRESS15	0.000	0.260	-1.525	18.02%	-0.525	-0.525	0.475
6447.000	1.060	-0.377	2.475	3.71%	0.475	0.475	
DUTIES15	0.000	-1.160	-3.067	2.54%	-1.067	-0.067	-0.067
6450.000	0.895	1.352	0.933	36.40%	-0.067	0.933	
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 44

## Information Criteria

Deviance (DIC) 103390.444  
Estimated Number of Parameters (pD) 92.742

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHY16 ON						
KES15	0.115	0.013	0.000	0.089	0.141	*
CHOICE15	-0.017	0.007	0.011	-0.032	-0.003	*
BULLY15	0.030	0.015	0.020	0.001	0.059	*
DUTIES15	-0.007	0.008	0.186	-0.024	0.009	
PRESS15	-0.009	0.008	0.119	-0.024	0.006	
KES15 WITH						
PHY15	0.166	0.006	0.000	0.154	0.179	*
CHOICE15	-0.126	0.009	0.000	-0.143	-0.109	*
BULLY15	0.083	0.005	0.000	0.074	0.092	*
PRESS15	0.147	0.008	0.000	0.131	0.164	*
DUTIES15	-0.144	0.008	0.000	-0.159	-0.129	*
PHY15 WITH						
CHOICE15	-0.122	0.011	0.000	-0.143	-0.101	*
BULLY15	0.048	0.005	0.000	0.038	0.058	*
PRESS15	0.110	0.010	0.000	0.090	0.130	*
DUTIES15	-0.092	0.009	0.000	-0.110	-0.074	*
CHOICE15 WITH						
BULLY15	-0.082	0.007	0.000	-0.096	-0.068	*
PRESS15	-0.125	0.014	0.000	-0.152	-0.099	*
DUTIES15	0.185	0.013	0.000	0.159	0.209	*
BULLY15 WITH						
PRESS15	0.127	0.007	0.000	0.114	0.140	*
DUTIES15	-0.097	0.007	0.000	-0.111	-0.085	*
PRESS15 WITH						
DUTIES15	-0.210	0.013	0.000	-0.236	-0.186	*
Means						
CHOICE15	0.000	0.013	0.494	-0.025	0.026	



BULLY15	0.000	0.007	0.497	-0.014	0.013	
PRESS15	0.000	0.013	0.497	-0.025	0.026	
DUTIES15	0.000	0.012	0.497	-0.023	0.023	
Variances						
PHY15	0.601	0.010	0.000	0.582	0.621	*
KES15	0.388	0.007	0.000	0.376	0.402	*
CHOICE15	1.141	0.021	0.000	1.099	1.181	*
BULLY15	0.293	0.005	0.000	0.283	0.303	*
PRESS15	1.061	0.019	0.000	1.026	1.099	*
DUTIES15	0.897	0.016	0.000	0.868	0.929	*
Residual Variances						
PHY16	0.361	0.006	0.000	0.349	0.373	*
Between Level						
S2 ON						
PRAFAC	-0.008	0.011	0.238	-0.029	0.015	
PHY16 ON						
PRAFAC	-0.023	0.010	0.007	-0.043	-0.004	*
PHY15	1.082	0.322	0.001	0.599	1.857	*
KES15	-0.203	0.358	0.245	-1.001	0.372	
PHY15 WITH						
KES15	0.005	0.002	0.003	0.001	0.009	*
Means						
PHY15	1.949	0.018	0.000	1.914	1.987	*
KES15	0.602	0.014	0.000	0.576	0.631	*
Intercepts						
PHY16	-0.025	0.484	0.479	-1.142	0.728	
S2	0.601	0.013	0.000	0.576	0.626	*
Variances						
PHY15	0.009	0.004	0.000	0.004	0.019	*
KES15	0.005	0.002	0.000	0.002	0.009	*
Residual Variances						
PHY16	0.001	0.001	0.000	0.000	0.004	*
S2	0.001	0.001	0.000	0.001	0.004	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S2   PHY16 ON PHY15	0.595	0.009	0.000	0.578	0.612	*
PHY16 ON						
KES15	0.092	0.011	0.000	0.070	0.112	*
CHOICE15	-0.023	0.010	0.010	-0.043	-0.003	*
BULLY15	0.021	0.010	0.017	0.001	0.041	*
DUTIES15	-0.009	0.010	0.190	-0.029	0.011	
PRESS15	-0.012	0.010	0.119	-0.032	0.008	
KES15 WITH						
PHY15	0.343	0.011	0.000	0.321	0.365	*
CHOICE15	-0.189	0.012	0.000	-0.213	-0.165	*
BULLY15	0.246	0.012	0.000	0.223	0.270	*
PRESS15	0.230	0.012	0.000	0.206	0.253	*
DUTIES15	-0.244	0.012	0.000	-0.267	-0.222	*
PHY15 WITH						
CHOICE15	-0.147	0.013	0.000	-0.172	-0.123	*
BULLY15	0.114	0.012	0.000	0.090	0.139	*
PRESS15	0.138	0.012	0.000	0.113	0.162	*
DUTIES15	-0.125	0.012	0.000	-0.149	-0.100	*
CHOICE15 WITH						
BULLY15	-0.143	0.012	0.000	-0.166	-0.118	*
PRESS15	-0.114	0.012	0.000	-0.138	-0.090	*
DUTIES15	0.183	0.012	0.000	0.159	0.206	*
BULLY15 WITH						
PRESS15	0.228	0.012	0.000	0.205	0.252	*
DUTIES15	-0.189	0.012	0.000	-0.213	-0.165	*
PRESS15 WITH						

DUTIES15	-0.215	0.012	0.000	-0.238	-0.193	*
Means						
CHOICE15	0.000	0.013	0.493	-0.025	0.025	
BULLY15	0.000	0.012	0.498	-0.025	0.024	
PRESS15	0.000	0.012	0.497	-0.024	0.025	
DUTIES15	0.000	0.012	0.498	-0.024	0.023	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHY16	0.589	0.010	0.000	0.570	0.609	*
Between Level						
S2 ON						
PRAFAC	-0.141	0.208	0.238	-0.543	0.252	
PHY16 ON						
PRAFAC	-0.159	0.082	0.007	-0.350	-0.027	*
PHY15	0.997	0.221	0.001	0.612	1.479	*
KES15	-0.134	0.254	0.245	-0.675	0.272	
PHY15 WITH						
KES15	0.690	0.176	0.003	0.232	0.922	*
Means						
PHY15	20.245	4.515	0.000	14.186	31.047	*
KES15	8.561	1.550	0.000	6.193	12.268	*
Intercepts						
PHY16	-0.242	5.096	0.479	-10.307	9.428	
S2	15.588	3.661	0.000	8.841	23.081	*
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	

Residual Variances						
PHY16	0.101	0.107	0.000	0.006	0.402	*
S2	0.969	0.086	0.000	0.705	1.000	*

#### R-SQUARE

##### Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHY16	0.411	0.010	0.000	0.391	0.430

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHY16	0.899	0.107	0.000	0.598	0.994

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S2	0.031	0.086	0.000	0.000	0.295

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

NU				
PHY15	KES15	PHY16	CHOICE15	BULLY15
_____	_____	_____	_____	_____
0	0	0	0	0

NU	
PRESS15	DUTIES15
_____	_____
0	0

LAMBDA					
	PHY15	KES15	PHY16	CHOICE15	BULLY15
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
PHY16	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
PHY15	0	0
KES15	0	0
PHY16	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHY15	KES15	PHY16	CHOICE15	BULLY15
PHY15	0				
KES15	0	0			
PHY16	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA				
PHY15	KES15	PHY16	CHOICE15	BULLY15
<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>

ALPHA	
PRESS15	DUTIES15
<u>3</u>	<u>4</u>

BETA					
PHY15	KES15	PHY16	CHOICE15	BULLY15	
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
PHY16	5	0	6	7	
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15	DUTIES15	
<u>0</u>	<u>0</u>	
PHY15	0	
KES15	0	
PHY16	9	
CHOICE15	0	
BULLY15	0	
PRESS15	0	
DUTIES15	0	

PSI				
PHY15	KES15	PHY16	CHOICE15	BULLY15
<u>10</u>	<u>12</u>	<u>13</u>	<u>16</u>	<u>20</u>
PHY15	11			
KES15	12			
PHY16	0	13		
CHOICE15	14	0	16	
BULLY15	17	0	19	20

PRESS15	21	22	0	23	24
DUTIES15	26	27	0	28	29

	PSI	
	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

	NU				
	PHY15	KES15	PHY16	PRAFAC	
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0	0	0	0	

	LAMBDA				
	S2	PHY15	KES15	PHY16	PRAFAC
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
PHY16	0	0	0	0	0
PRAFAC	0	0	0	0	0

	THETA			
	PHY15	KES15	PHY16	PRAFAC
	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0			
KES15	0	0		
PHY16	0	0	0	
PRAFAC	0	0	0	0

	ALPHA				
	S2	PHY15	KES15	PHY16	PRAFAC
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	32	33	34	35	0

	BETA					
	S2		PHY15	KES15	PHY16	PRAFAC
S2	<u>0</u>		<u>0</u>	<u>0</u>	<u>0</u>	<u>36</u>
PHY15	0		0	0	0	0
KES15	0		0	0	0	0
PHY16	0		37	38	0	39
PRAFAC	0		0	0	0	0

	PSI					
	S2		PHY15	KES15	PHY16	PRAFAC
S2	<u>40</u>		<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0		41			
KES15	0		42	43		
PHY16	0		0	0	44	
PRAFAC	0		0	0	0	0

STARTING VALUES FOR WITHIN

NU	PHY15	KES15	PHY16	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

LAMBDA	PHY15	KES15	PHY16	CHOICE15	BULLY15
PHY15	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KES15	0.000	1.000	0.000	0.000	0.000
PHY16	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000



DUTIES15	0.000	0.000	0.000	0.000	0.000
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LAMBDA

PRESS15

DUTIES15

PHY15	<u>0.000</u>	<u>0.000</u>
KES15	0.000	0.000
PHY16	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

PHY15

KES15

PHY16

CHOICE15

BULLY15

PHY15	<u>0.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
KES15	0.000	0.000			
PHY16	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

PRESS15

DUTIES15

PRESS15	<u>0.000</u>	<u>          </u>
DUTIES15	0.000	0.000

ALPHA

PHY15

KES15

PHY16

CHOICE15

BULLY15

<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
--------------	--------------	--------------	--------------	--------------

ALPHA

PRESS15

DUTIES15

<u>0.000</u>	<u>0.000</u>
--------------	--------------

	BETA				
	PHY15	KES15	PHY16	CHOICE15	BULLY15
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
PHY16	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	BETA	
	PRESS15	DUTIES15
PHY15	0.000	0.000
KES15	0.000	0.000
PHY16	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	PHY15	KES15	PHY16	CHOICE15	BULLY15
PHY15	0.303				
KES15	0.000	0.195			
PHY16	0.000	0.000	0.307		
CHOICE15	0.000	0.000	0.000	0.569	
BULLY15	0.000	0.000	0.000	0.000	0.146
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	0.530	
DUTIES15	0.000	0.448

STARTING VALUES FOR BETWEEN

NU					
	PHY15	KES15	PHY16	PRAFAC	
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
LAMBDA					
	S2	PHY15	KES15	PHY16	PRAFAC
PHY15	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KES15	0.000	0.000	1.000	0.000	0.000
PHY16	0.000	0.000	0.000	1.000	0.000
PRAFAC	0.000	0.000	0.000	0.000	1.000
THETA					
	PHY15	KES15	PHY16	PRAFAC	
PHY15	<u>0.000</u>				
KES15	0.000	0.000			
PHY16	0.000	0.000	0.000		
PRAFAC	0.000	0.000	0.000	0.000	
ALPHA					
	S2	PHY15	KES15	PHY16	PRAFAC
	<u>0.000</u>	<u>1.956</u>	<u>0.605</u>	<u>1.968</u>	<u>0.000</u>
BETA					
	S2	PHY15	KES15	PHY16	PRAFAC
S2	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
PHY16	0.000	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000	0.000

	PSI				
	S2	PHY15	KES15	PHY16	PRAFAC
S2	1.000				
PHY15	0.000	0.303			
KES15	0.000	0.000	0.195		
PHY16	0.000	0.000	0.000	0.307	
PRAFAC	0.000	0.000	0.000	0.000	0.500

PRIORS FOR ALL PARAMETERS

PRIOR MEAN

PRIOR VARIANCE

PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 8~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 9~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 10~IW(0.000,-7)	infinity	infinity	infinity
Parameter 11~IW(0.000,-7)	infinity	infinity	infinity
Parameter 12~IW(0.000,-7)	infinity	infinity	infinity
Parameter 13~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 14~IW(0.000,-7)	infinity	infinity	infinity
Parameter 15~IW(0.000,-7)	infinity	infinity	infinity
Parameter 16~IW(0.000,-7)	infinity	infinity	infinity
Parameter 17~IW(0.000,-7)	infinity	infinity	infinity
Parameter 18~IW(0.000,-7)	infinity	infinity	infinity
Parameter 19~IW(0.000,-7)	infinity	infinity	infinity
Parameter 20~IW(0.000,-7)	infinity	infinity	infinity
Parameter 21~IW(0.000,-7)	infinity	infinity	infinity
Parameter 22~IW(0.000,-7)	infinity	infinity	infinity
Parameter 23~IW(0.000,-7)	infinity	infinity	infinity
Parameter 24~IW(0.000,-7)	infinity	infinity	infinity
Parameter 25~IW(0.000,-7)	infinity	infinity	infinity
Parameter 26~IW(0.000,-7)	infinity	infinity	infinity
Parameter 27~IW(0.000,-7)	infinity	infinity	infinity
Parameter 28~IW(0.000,-7)	infinity	infinity	infinity
Parameter 29~IW(0.000,-7)	infinity	infinity	infinity
Parameter 30~IW(0.000,-7)	infinity	infinity	infinity
Parameter 31~IW(0.000,-7)	infinity	infinity	infinity

Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 40~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 41~IW(0.000,-3)	infinity	infinity	infinity
Parameter 42~IW(0.000,-3)	infinity	infinity	infinity
Parameter 43~IW(0.000,-3)	infinity	infinity	infinity
Parameter 44~IG(-1.000,0.000)	infinity	infinity	infinity

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.179948D-03				
2	-0.142668D-04	0.446923D-04			
3	-0.208749D-04	0.213967D-04	0.161804D-03		
4	0.258804D-04	-0.143372D-04	-0.274989D-04	0.141147D-03	
5	-0.272188D-06	-0.291122D-05	-0.410999D-05	-0.499066D-05	0.173034D-03
6	-0.478302D-06	0.407847D-06	-0.101203D-05	-0.867886D-06	0.125800D-04
7	-0.114258D-05	0.740239D-06	0.369931D-05	0.971002D-05	-0.392431D-04
8	0.304194D-05	-0.378734D-06	-0.310989D-07	-0.351795D-05	-0.902070D-05
9	-0.464183D-05	0.144736D-05	0.460879D-05	0.773738D-06	0.151138D-04
10	0.231588D-05	-0.551610D-07	-0.371125D-05	-0.175561D-06	-0.582853D-05
11	-0.595499D-06	0.139723D-05	-0.115057D-05	-0.216049D-05	-0.146399D-05
12	-0.260087D-07	0.745157D-06	0.738301D-06	-0.274720D-05	-0.290298D-05
13	0.153480D-05	-0.686279D-07	0.106425D-05	-0.711869D-07	-0.277029D-05
14	-0.574046D-06	-0.838301D-06	0.253643D-05	0.130193D-05	0.604227D-05
15	0.255723D-05	0.913183D-06	0.118424D-05	-0.367866D-05	0.238493D-05
16	-0.782701D-05	0.254824D-05	-0.153909D-05	-0.270494D-05	-0.296324D-05
17	-0.860852D-06	-0.165507D-05	-0.737113D-06	-0.310654D-06	-0.183896D-06
18	-0.716537D-06	-0.858182D-06	-0.170416D-05	0.137524D-05	-0.934465D-06
19	0.479659D-06	0.483954D-06	0.560390D-06	-0.167068D-05	-0.708531D-06
20	-0.410192D-06	0.353840D-06	-0.171477D-06	0.708373D-06	-0.195211D-05
21	0.278865D-05	-0.403932D-06	-0.283606D-05	0.151008D-05	-0.228567D-05
22	-0.133872D-05	0.463424D-06	-0.775815D-06	-0.209046D-05	-0.265759D-05
23	-0.702164D-05	-0.301484D-05	0.153496D-06	0.204292D-05	0.782686D-05

24	0.881930D-06	-0.134363D-06	-0.403808D-05	0.334583D-05	-0.190719D-05
25	-0.369597D-05	0.343402D-06	0.144663D-04	0.221859D-05	-0.893939D-05
26	0.637745D-06	-0.571905D-06	-0.240333D-05	0.180935D-05	0.224629D-06
27	0.523552D-05	0.117253D-05	-0.273002D-05	-0.540118D-05	0.670499D-06
28	-0.508346D-05	-0.152108D-05	-0.151125D-05	0.424955D-05	0.129903D-08
29	0.469900D-05	0.667841D-06	0.203113D-05	0.128744D-05	-0.224955D-05
30	0.151057D-05	0.270589D-06	0.775722D-06	0.190954D-05	-0.502882D-05
31	-0.777931D-05	-0.209941D-05	0.324093D-05	0.252987D-05	0.494240D-05
32	-0.153510D-05	0.301732D-05	0.584434D-05	-0.555134D-05	-0.361227D-04
33	-0.265206D-04	0.589867D-05	0.150302D-04	-0.185167D-04	-0.582315D-06
34	-0.256815D-04	0.978995D-05	0.149955D-04	-0.233556D-04	-0.310586D-05
35	0.459159D-05	-0.476981D-04	-0.339729D-03	0.264403D-03	0.154561D-04
36	0.602750D-05	0.270455D-05	0.516172D-05	-0.171131D-05	-0.500998D-05
37	0.477026D-07	0.383969D-04	0.238341D-03	-0.188312D-03	0.144993D-04
38	0.209423D-05	-0.397006D-04	-0.217664D-03	0.180809D-03	-0.728004D-04
39	-0.226722D-05	0.125906D-05	0.935987D-06	-0.212418D-05	-0.496184D-05
40	0.439306D-06	-0.575790D-09	-0.358329D-06	-0.512394D-07	0.341789D-06
41	-0.848817D-06	0.768795D-06	-0.133752D-05	0.451725D-06	0.128166D-06
42	-0.237539D-07	0.350601D-07	-0.338864D-06	0.455285D-06	-0.685817D-06
43	0.229546D-06	-0.364344D-06	-0.482024D-06	0.646796D-06	-0.523206D-06
44	0.188246D-06	0.635059D-07	0.254951D-06	0.185923D-06	0.444974D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.560116D-04				
7	0.251863D-05	0.225706D-03			
8	0.337322D-05	-0.183786D-04	0.576877D-04		
9	-0.665548D-05	0.115866D-04	0.936305D-05	0.697379D-04	
10	0.278891D-05	-0.472709D-05	0.356196D-05	-0.420049D-05	0.105846D-03
11	-0.559095D-06	0.124528D-05	-0.156202D-05	-0.243279D-05	0.309597D-04
12	-0.104787D-05	-0.369831D-06	-0.131647D-05	-0.385479D-06	0.885398D-05
13	-0.587759D-06	-0.104429D-05	-0.872243D-06	-0.207364D-05	0.845328D-06
14	0.147782D-05	0.312417D-06	-0.143247D-05	0.227303D-05	-0.277863D-04
15	0.870115D-06	-0.633974D-05	0.994051D-06	0.437221D-06	-0.645001D-05
16	-0.558029D-06	0.841798D-05	0.694352D-05	0.128862D-06	0.708137D-05
17	0.401855D-07	-0.180907D-05	0.663939D-07	0.102180D-06	0.988015D-05
18	-0.828716D-06	0.435294D-06	0.155985D-06	0.788379D-06	0.341255D-05
19	0.152748D-05	0.139918D-05	-0.276252D-06	0.459705D-06	-0.770730D-06
20	-0.662538D-07	-0.328348D-06	0.319817D-06	0.248623D-05	0.175312D-05
21	-0.262522D-05	0.106146D-05	0.827985D-06	0.256174D-05	0.215047D-04
22	-0.312263D-06	-0.423726D-06	-0.434457D-07	0.132743D-05	0.107926D-04
23	-0.239899D-05	-0.838110D-05	-0.338637D-05	0.406195D-05	-0.108907D-04

24	-0.978179D-07	-0.269065D-05	-0.611895D-07	0.316094D-05	0.347048D-05
25	-0.603080D-05	0.213631D-05	0.978563D-05	0.500333D-05	-0.202638D-06
26	0.295203D-05	0.648310D-05	0.290987D-06	0.158742D-05	-0.113767D-04
27	0.194900D-05	0.239317D-05	-0.136958D-05	-0.260985D-05	-0.353438D-05
28	-0.463934D-05	0.246210D-05	-0.278782D-06	0.306687D-05	0.130974D-05
29	-0.145724D-05	0.173720D-05	-0.301127D-05	-0.404615D-05	0.120746D-06
30	-0.163725D-05	-0.728888D-05	-0.429295D-05	-0.523242D-05	-0.619609D-05
31	-0.103645D-05	-0.544364D-05	0.184561D-05	0.233292D-05	0.259846D-05
32	0.114797D-04	0.154057D-05	-0.697692D-05	-0.986835D-06	0.254993D-05
33	-0.188689D-05	0.386549D-05	0.302582D-05	0.585843D-06	0.417415D-05
34	0.121108D-05	-0.366827D-05	-0.115822D-05	-0.364513D-05	-0.898316D-06
35	0.902363D-04	-0.246119D-03	-0.147947D-03	-0.105960D-03	-0.453590D-03
36	0.890396D-06	0.179941D-05	-0.193954D-05	0.175550D-06	0.106318D-05
37	-0.145550D-04	0.123283D-03	0.738666D-04	0.145325D-04	0.282690D-03
38	-0.100831D-03	0.433372D-05	0.459848D-05	0.127340D-03	-0.165380D-03
39	0.148742D-05	0.180942D-05	0.126230D-05	0.128244D-06	-0.800763D-06
40	0.336620D-06	0.277834D-06	-0.156378D-06	-0.264237D-06	-0.262039D-06
41	0.618409D-06	-0.984157D-06	-0.158256D-05	-0.804864D-06	-0.266623D-05
42	-0.413735D-06	0.455311D-06	-0.323036D-06	0.410739D-07	-0.207757D-06
43	-0.652154D-06	0.958298D-06	-0.190788D-06	0.128603D-06	-0.334782D-06
44	0.144051D-06	-0.362773D-06	0.253255D-06	0.183697D-06	-0.419895D-06

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	11	12	13	14	15
11	0.401928D-04				
12	0.189890D-04	0.436892D-04			
13	-0.141536D-06	0.262160D-06	0.386507D-04		
14	-0.181473D-04	-0.657189D-05	0.524983D-06	0.121134D-03	
15	-0.941754D-05	-0.139496D-04	0.223890D-06	0.345524D-04	0.736784D-04
16	0.557847D-05	0.656904D-05	0.565138D-06	-0.530328D-04	-0.431228D-04
17	0.851997D-05	0.407720D-05	0.473051D-06	-0.113101D-04	-0.115962D-05
18	0.513916D-05	0.100112D-04	-0.753407D-08	-0.285428D-05	-0.555108D-05
19	0.725886D-07	-0.187630D-05	0.307543D-05	0.881323D-05	0.146820D-04
20	0.928538D-06	0.240719D-05	0.675436D-06	-0.199606D-05	-0.172075D-05
21	0.158079D-04	0.643176D-05	-0.888145D-06	-0.201084D-04	-0.499801D-05
22	0.124634D-04	0.158623D-04	0.610339D-06	-0.822122D-05	-0.113247D-04
23	-0.721489D-05	-0.703117D-05	0.243037D-06	0.284373D-04	0.276453D-04
24	0.316993D-05	0.342594D-05	-0.300699D-06	-0.431949D-05	-0.872408D-06
25	0.155701D-05	0.312901D-05	-0.156364D-06	-0.718637D-05	-0.144249D-05
26	-0.129703D-04	-0.600838D-05	0.797825D-06	0.194108D-04	0.650965D-05
27	-0.920238D-05	-0.158116D-04	0.527520D-07	0.654313D-05	0.144691D-04
28	0.160198D-05	0.993212D-06	0.500391D-06	-0.211375D-04	-0.278678D-04

29	-0.232806D-05	-0.375853D-05	0.183581D-05	0.237671D-05	0.354601D-05
30	-0.487124D-05	-0.701777D-05	-0.168887D-05	0.741210D-05	0.487718D-05
31	0.378786D-05	0.775961D-05	-0.125725D-05	-0.449853D-05	-0.119073D-04
32	-0.312094D-05	-0.176789D-05	0.105345D-05	-0.891840D-05	-0.197560D-05
33	0.270978D-05	0.144399D-05	-0.286436D-05	-0.960216D-05	-0.328581D-05
34	0.293011D-05	0.437416D-05	0.148725D-05	-0.364591D-05	-0.325568D-05
35	-0.224919D-04	0.211063D-04	0.105209D-03	0.256009D-03	0.369805D-04
36	0.368417D-06	-0.283261D-06	0.957893D-08	0.888339D-06	-0.398512D-09
37	0.143131D-04	-0.211621D-04	-0.816688D-04	-0.176411D-03	-0.159563D-04
38	-0.905388D-05	0.268111D-04	0.890423D-04	0.146521D-03	-0.929630D-05
39	-0.701357D-07	-0.222086D-06	-0.171333D-05	-0.116991D-06	-0.235145D-05
40	-0.131599D-06	-0.688602D-07	0.551963D-08	-0.226583D-06	-0.158926D-07
41	-0.512334D-06	0.269037D-06	-0.572079D-07	0.248057D-05	0.115634D-05
42	-0.202119D-06	0.206741D-06	-0.304879D-06	-0.589533D-06	-0.195031D-06
43	-0.315816D-06	0.233722D-06	-0.412860D-06	-0.793472D-06	-0.596632D-06
44	0.565181D-07	-0.583408D-07	0.688668D-07	-0.437638D-06	-0.509348D-07

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.426745D-03				
17	0.361715D-05	0.273805D-04			
18	0.799644D-05	0.843785D-05	0.203576D-04		
19	-0.302496D-04	-0.442787D-05	-0.774730D-05	0.529135D-04	
20	0.619408D-05	0.423198D-05	0.861690D-05	-0.900138D-05	0.267814D-04
21	0.345852D-05	0.121974D-04	0.360431D-05	-0.224093D-05	0.473794D-06
22	0.253020D-05	0.637413D-05	0.101785D-04	-0.533405D-05	0.368349D-05
23	-0.514166D-04	-0.488153D-05	-0.382711D-05	0.251863D-04	-0.482193D-05
24	0.419229D-05	0.659974D-05	0.926218D-05	-0.887909D-05	0.117162D-04
25	0.167077D-05	0.394150D-05	0.367008D-05	-0.670774D-05	0.246690D-05
26	-0.106776D-04	-0.961346D-05	-0.254281D-05	0.875025D-06	0.128115D-05
27	-0.107974D-04	-0.402678D-05	-0.793491D-05	0.359882D-05	-0.210167D-05
28	0.620323D-04	0.318537D-05	0.654362D-05	-0.182263D-04	0.500583D-05
29	-0.118454D-04	-0.479692D-05	-0.901243D-05	0.107338D-04	-0.941134D-05
30	-0.142664D-04	-0.517193D-05	-0.746432D-05	0.915949D-05	-0.394011D-05
31	0.132615D-04	0.535373D-05	0.576212D-05	-0.819885D-05	0.180466D-05
32	0.519133D-06	0.644157D-06	0.646442D-06	0.192919D-05	-0.111452D-05
33	-0.517888D-05	0.114787D-05	0.359312D-06	-0.247937D-05	-0.202155D-05
34	-0.169960D-04	-0.140827D-05	0.841121D-06	0.942883D-07	-0.158133D-05
35	-0.343298D-03	0.692436D-04	0.515629D-04	0.755873D-04	0.777951D-04
36	-0.461511D-05	0.789707D-06	0.646284D-06	0.510364D-07	0.979257D-06
37	0.279827D-03	-0.390968D-04	-0.278891D-04	-0.313444D-04	-0.675446D-04
38	-0.345666D-03	0.114843D-04	0.569557D-05	-0.249864D-04	0.934668D-04



39	0.343132D-05	-0.742031D-06	0.436445D-07	-0.246924D-05	0.589637D-06
40	-0.165169D-06	0.258291D-07	0.241716D-07	0.233822D-06	-0.238935D-06
41	-0.313958D-05	-0.298514D-06	0.247295D-06	0.575691D-06	0.343552D-06
42	-0.871185D-06	0.386590D-07	-0.729384D-08	0.240757D-06	-0.289698D-06
43	-0.734353D-06	-0.121731D-06	-0.538411D-07	0.308279D-06	-0.571712D-06
44	-0.735424D-06	0.798580D-07	-0.205272D-06	0.219235D-06	-0.943339D-07

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.103423D-03				
22	0.300274D-04	0.700060D-04			
23	-0.263068D-04	-0.252719D-04	0.183839D-03		
24	0.114928D-04	0.166632D-04	-0.168912D-04	0.497912D-04	
25	0.401965D-04	0.583052D-04	-0.423235D-04	0.399074D-04	0.369216D-03
26	-0.217368D-04	-0.790082D-05	0.116281D-04	-0.177509D-05	-0.714610D-05
27	-0.772951D-05	-0.149658D-04	0.884077D-05	-0.537503D-05	-0.117865D-04
28	0.402055D-05	0.840172D-05	-0.379529D-04	0.250820D-05	0.135747D-04
29	-0.151237D-05	-0.555538D-05	0.700219D-05	-0.120719D-04	-0.861075D-05
30	-0.141365D-04	-0.310341D-04	0.408177D-04	-0.208080D-04	-0.741724D-04
31	0.600443D-05	0.875304D-05	-0.125498D-04	0.496001D-05	0.125410D-04
32	0.101551D-05	-0.425403D-05	0.313068D-05	0.170991D-05	0.478462D-05
33	0.107742D-04	0.827093D-05	0.242797D-05	0.731840D-06	0.676412D-05
34	0.654614D-05	0.719285D-05	0.188805D-05	-0.101098D-05	0.188458D-05
35	-0.204959D-03	0.147718D-04	0.194094D-03	0.683830D-04	-0.283116D-03
36	-0.653852D-06	0.163586D-05	0.402264D-05	-0.602480D-06	-0.295005D-06
37	0.118757D-03	-0.240434D-04	-0.147443D-03	-0.467336D-04	0.161860D-03
38	-0.481452D-04	0.473568D-04	0.165758D-03	0.360382D-04	-0.910325D-04
39	-0.250958D-05	-0.480139D-05	-0.266853D-06	-0.167083D-05	0.136696D-05
40	0.107187D-06	0.274873D-06	0.343282D-06	-0.209819D-06	0.210834D-06
41	-0.207681D-05	-0.185482D-05	0.239067D-06	-0.530657D-06	-0.311147D-05
42	-0.830711D-07	-0.750632D-06	-0.779870D-06	-0.515385D-07	-0.513677D-06
43	0.253644D-06	0.233974D-06	-0.327303D-06	-0.100958D-06	-0.698435D-06
44	-0.192747D-06	-0.368118D-07	0.167677D-06	0.198720D-06	0.449605D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.855329D-04				
27	0.245245D-04	0.578796D-04			
28	-0.169414D-04	-0.214508D-04	0.162969D-03		
29	0.499497D-05	0.141624D-04	-0.143653D-04	0.434824D-04	

30	0.198389D-04	0.238621D-04	-0.264705D-04	0.210439D-04	0.158001D-03
31	-0.237916D-04	-0.394104D-04	0.540240D-04	-0.266539D-04	-0.615595D-04
32	0.366945D-05	0.427960D-05	0.186501D-05	0.282409D-05	0.849874D-05
33	-0.257652D-05	-0.179136D-05	-0.371655D-05	0.217531D-05	0.127173D-05
34	-0.608846D-06	-0.371487D-05	-0.746029D-06	0.316978D-05	-0.377808D-05
35	0.361027D-03	0.123948D-03	0.137869D-03	0.208606D-04	0.246571D-03
36	0.254743D-05	0.139782D-05	-0.551171D-05	-0.219598D-05	0.572862D-06
37	-0.235841D-03	-0.709683D-04	-0.574227D-04	-0.141479D-04	-0.159675D-03
38	0.170983D-03	0.261429D-04	-0.439860D-04	0.110031D-04	0.116885D-03
39	0.307603D-05	0.957811D-06	0.295862D-05	-0.137100D-05	0.143885D-06
40	-0.253666D-06	-0.263687D-06	-0.940138D-07	-0.175000D-06	-0.496826D-07
41	0.172685D-05	-0.905304D-06	0.136099D-05	-0.124101D-06	0.605479D-06
42	0.198018D-06	-0.403353D-06	0.787093D-06	-0.654810D-07	0.185028D-06
43	0.340731D-06	-0.289763D-06	0.353349D-06	0.100837D-07	0.213878D-06
44	0.244677D-06	0.234651D-06	0.213967D-06	0.207507D-06	0.161778D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.248100D-03				
32	-0.143501D-04	0.167504D-03			
33	-0.824312D-06	0.836061D-05	0.340454D-03		
34	0.536623D-06	0.683627D-05	0.140834D-03	0.187504D-03	
35	-0.210168D-03	0.381755D-03	-0.635708D-03	0.208866D-03	0.234393D+00
36	-0.538712D-05	0.169286D-04	-0.343015D-06	-0.127945D-05	0.162729D-03
37	0.169538D-03	-0.278304D-03	0.363811D-03	-0.164045D-03	-0.149211D+00
38	-0.194104D-03	0.266570D-03	-0.206671D-03	0.192149D-03	0.954611D-01
39	0.330334D-05	0.229338D-05	0.108943D-04	0.278228D-05	-0.939826D-03
40	0.398592D-06	0.783038D-06	-0.228074D-06	-0.329516D-06	0.118214D-04
41	-0.101790D-05	-0.102722D-05	-0.597110D-05	0.731086D-06	0.543489D-03
42	0.183252D-06	-0.300750D-06	-0.886621D-06	-0.962596D-06	-0.316995D-04
43	-0.109379D-06	0.122874D-07	0.642339D-06	-0.176659D-06	-0.560855D-04
44	-0.250934D-06	-0.286398D-06	-0.270580D-06	0.411234D-06	0.111781D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.129385D-03				
37	-0.107231D-03	0.103511D+00			
38	0.874135D-04	-0.883162D-01	0.128264D+00		
39	0.113858D-05	0.433968D-03	0.161838D-03	0.100428D-03	
40	0.801313D-06	-0.133089D-04	0.240608D-04	0.292198D-06	0.988840D-06

41	-0.641652D-06	-0.303347D-03	0.864093D-04	0.188533D-05	0.779504D-07
42	-0.606824D-06	0.459982D-04	-0.951558D-04	0.100967D-05	0.143893D-07
43	-0.472487D-06	0.215689D-04	0.231703D-04	0.962845D-07	0.138628D-07
44	-0.236938D-06	-0.895272D-04	0.104287D-03	-0.117178D-05	0.311811D-07

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44
41	0.146374D-04			
42	0.495152D-05	0.431242D-05		
43	0.194360D-05	0.259665D-05	0.308671D-05	
44	0.102691D-06	-0.444714D-07	0.172522D-10	0.111981D-05

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	-0.159	1.000			
3	-0.122	0.252	1.000		
4	0.162	-0.181	-0.182	1.000	
5	-0.002	-0.033	-0.025	-0.032	1.000
6	-0.005	0.008	-0.011	-0.010	0.128
7	-0.006	0.007	0.019	0.054	-0.199
8	0.030	-0.007	0.000	-0.039	-0.090
9	-0.041	0.026	0.043	0.008	0.138
10	0.017	-0.001	-0.028	-0.001	-0.043
11	-0.007	0.033	-0.014	-0.029	-0.018
12	0.000	0.017	0.009	-0.035	-0.033
13	0.018	-0.002	0.013	-0.001	-0.034
14	-0.004	-0.011	0.018	0.010	0.042
15	0.022	0.016	0.011	-0.036	0.021
16	-0.028	0.018	-0.006	-0.011	-0.011
17	-0.012	-0.047	-0.011	-0.005	-0.003
18	-0.012	-0.028	-0.030	0.026	-0.016
19	0.005	0.010	0.006	-0.019	-0.007
20	-0.006	0.010	-0.003	0.012	-0.029
21	0.020	-0.006	-0.022	0.012	-0.017
22	-0.012	0.008	-0.007	-0.021	-0.024
23	-0.039	-0.033	0.001	0.013	0.044
24	0.009	-0.003	-0.045	0.040	-0.021
25	-0.014	0.003	0.059	0.010	-0.035
26	0.005	-0.009	-0.020	0.016	0.002

27	0.051	0.023	-0.028	-0.060	0.007
28	-0.030	-0.018	-0.009	0.028	0.000
29	0.053	0.015	0.024	0.016	-0.026
30	0.009	0.003	0.005	0.013	-0.030
31	-0.037	-0.020	0.016	0.014	0.024
32	-0.009	0.035	0.036	-0.036	-0.212
33	-0.107	0.048	0.064	-0.084	-0.002
34	-0.140	0.107	0.086	-0.144	-0.017
35	0.001	-0.015	-0.055	0.046	0.002
36	0.040	0.036	0.036	-0.013	-0.033
37	0.000	0.018	0.058	-0.049	0.003
38	0.000	-0.017	-0.048	0.042	-0.015
39	-0.017	0.019	0.007	-0.018	-0.038
40	0.033	0.000	-0.028	-0.004	0.026
41	-0.017	0.030	-0.027	0.010	0.003
42	-0.001	0.003	-0.013	0.018	-0.025
43	0.010	-0.031	-0.022	0.031	-0.023
44	0.013	0.009	0.019	0.015	0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.022	1.000			
8	0.059	-0.161	1.000		
9	-0.106	0.092	0.148	1.000	
10	0.036	-0.031	0.046	-0.049	1.000
11	-0.012	0.013	-0.032	-0.046	0.475
12	-0.021	-0.004	-0.026	-0.007	0.130
13	-0.013	-0.011	-0.018	-0.040	0.013
14	0.018	0.002	-0.017	0.025	-0.245
15	0.014	-0.049	0.015	0.006	-0.073
16	-0.004	0.027	0.044	0.001	0.033
17	0.001	-0.023	0.002	0.002	0.184
18	-0.025	0.006	0.005	0.021	0.074
19	0.028	0.013	-0.005	0.008	-0.010
20	-0.002	-0.004	0.008	0.058	0.033
21	-0.034	0.007	0.011	0.030	0.206
22	-0.005	-0.003	-0.001	0.019	0.125
23	-0.024	-0.041	-0.033	0.036	-0.078
24	-0.002	-0.025	-0.001	0.054	0.048
25	-0.042	0.007	0.067	0.031	-0.001
26	0.043	0.047	0.004	0.021	-0.120

27	0.034	0.021	-0.024	-0.041	-0.045
28	-0.049	0.013	-0.003	0.029	0.010
29	-0.030	0.018	-0.060	-0.073	0.002
30	-0.017	-0.039	-0.045	-0.050	-0.048
31	-0.009	-0.023	0.015	0.018	0.016
32	0.119	0.008	-0.071	-0.009	0.019
33	-0.014	0.014	0.022	0.004	0.022
34	0.012	-0.018	-0.011	-0.032	-0.006
35	0.025	-0.034	-0.040	-0.026	-0.091
36	0.010	0.011	-0.022	0.002	0.009
37	-0.006	0.026	0.030	0.005	0.085
38	-0.038	0.001	0.002	0.043	-0.045
39	0.020	0.012	0.017	0.002	-0.008
40	0.045	0.019	-0.021	-0.032	-0.026
41	0.022	-0.017	-0.054	-0.025	-0.068
42	-0.027	0.015	-0.020	0.002	-0.010
43	-0.050	0.036	-0.014	0.009	-0.019
44	0.018	-0.023	0.032	0.021	-0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.453	1.000			
13	-0.004	0.006	1.000		
14	-0.260	-0.090	0.008	1.000	
15	-0.173	-0.246	0.004	0.366	1.000
16	0.043	0.048	0.004	-0.233	-0.243
17	0.257	0.118	0.015	-0.196	-0.026
18	0.180	0.336	0.000	-0.057	-0.143
19	0.002	-0.039	0.068	0.110	0.235
20	0.028	0.070	0.021	-0.035	-0.039
21	0.245	0.096	-0.014	-0.180	-0.057
22	0.235	0.287	0.012	-0.089	-0.158
23	-0.084	-0.078	0.003	0.191	0.238
24	0.071	0.073	-0.007	-0.056	-0.014
25	0.013	0.025	-0.001	-0.034	-0.009
26	-0.221	-0.098	0.014	0.191	0.082
27	-0.191	-0.314	0.001	0.078	0.222
28	0.020	0.012	0.006	-0.150	-0.254
29	-0.056	-0.086	0.045	0.033	0.063
30	-0.061	-0.084	-0.022	0.054	0.045
31	0.038	0.075	-0.013	-0.026	-0.088

32	-0.038	-0.021	0.013	-0.063	-0.018
33	0.023	0.012	-0.025	-0.047	-0.021
34	0.034	0.048	0.017	-0.024	-0.028
35	-0.007	0.007	0.035	0.048	0.009
36	0.005	-0.004	0.000	0.007	0.000
37	0.007	-0.010	-0.041	-0.050	-0.006
38	-0.004	0.011	0.040	0.037	-0.003
39	-0.001	-0.003	-0.028	-0.001	-0.027
40	-0.021	-0.010	0.001	-0.021	-0.002
41	-0.021	0.011	-0.002	0.059	0.035
42	-0.015	0.015	-0.024	-0.026	-0.011
43	-0.028	0.020	-0.038	-0.041	-0.040
44	0.008	-0.008	0.010	-0.038	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.033	1.000			
18	0.086	0.357	1.000		
19	-0.201	-0.116	-0.236	1.000	
20	0.058	0.156	0.369	-0.239	1.000
21	0.016	0.229	0.079	-0.030	0.009
22	0.015	0.146	0.270	-0.088	0.085
23	-0.184	-0.069	-0.063	0.255	-0.069
24	0.029	0.179	0.291	-0.173	0.321
25	0.004	0.039	0.042	-0.048	0.025
26	-0.056	-0.199	-0.061	0.013	0.027
27	-0.069	-0.101	-0.231	0.065	-0.053
28	0.235	0.048	0.114	-0.196	0.076
29	-0.087	-0.139	-0.303	0.224	-0.276
30	-0.055	-0.079	-0.132	0.100	-0.061
31	0.041	0.065	0.081	-0.072	0.022
32	0.002	0.010	0.011	0.020	-0.017
33	-0.014	0.012	0.004	-0.018	-0.021
34	-0.060	-0.020	0.014	0.001	-0.022
35	-0.034	0.027	0.024	0.021	0.031
36	-0.020	0.013	0.013	0.001	0.017
37	0.042	-0.023	-0.019	-0.013	-0.041
38	-0.047	0.006	0.004	-0.010	0.050
39	0.017	-0.014	0.001	-0.034	0.011
40	-0.008	0.005	0.005	0.032	-0.046
41	-0.040	-0.015	0.014	0.021	0.017

42	-0.020	0.004	-0.001	0.016	-0.027
43	-0.020	-0.013	-0.007	0.024	-0.063
44	-0.034	0.014	-0.043	0.028	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.353	1.000			
23	-0.191	-0.223	1.000		
24	0.160	0.282	-0.177	1.000	
25	0.206	0.363	-0.162	0.294	1.000
26	-0.231	-0.102	0.093	-0.027	-0.040
27	-0.100	-0.235	0.086	-0.100	-0.081
28	0.031	0.079	-0.219	0.028	0.055
29	-0.023	-0.101	0.078	-0.259	-0.068
30	-0.111	-0.295	0.239	-0.235	-0.307
31	0.037	0.066	-0.059	0.045	0.041
32	0.008	-0.039	0.018	0.019	0.019
33	0.057	0.054	0.010	0.006	0.019
34	0.047	0.063	0.010	-0.010	0.007
35	-0.042	0.004	0.030	0.020	-0.030
36	-0.006	0.017	0.026	-0.008	-0.001
37	0.036	-0.009	-0.034	-0.021	0.026
38	-0.013	0.016	0.034	0.014	-0.013
39	-0.025	-0.057	-0.002	-0.024	0.007
40	0.011	0.033	0.025	-0.030	0.011
41	-0.053	-0.058	0.005	-0.020	-0.042
42	-0.004	-0.043	-0.028	-0.004	-0.013
43	0.014	0.016	-0.014	-0.008	-0.021
44	-0.018	-0.004	0.012	0.027	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.143	-0.221	1.000		
29	0.082	0.282	-0.171	1.000	
30	0.171	0.250	-0.165	0.254	1.000
31	-0.163	-0.329	0.269	-0.257	-0.311
32	0.031	0.043	0.011	0.033	0.052

33	-0.015	-0.013	-0.016	0.018	0.005
34	-0.005	-0.036	-0.004	0.035	-0.022
35	0.081	0.034	0.022	0.007	0.041
36	0.024	0.016	-0.038	-0.029	0.004
37	-0.079	-0.029	-0.014	-0.007	-0.039
38	0.052	0.010	-0.010	0.005	0.026
39	0.033	0.013	0.023	-0.021	0.001
40	-0.028	-0.035	-0.007	-0.027	-0.004
41	0.049	-0.031	0.028	-0.005	0.013
42	0.010	-0.026	0.030	-0.005	0.007
43	0.021	-0.022	0.016	0.001	0.010
44	0.025	0.029	0.016	0.030	0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.070	1.000			
33	-0.003	0.035	1.000		
34	0.002	0.039	0.557	1.000	
35	-0.028	0.061	-0.071	0.032	1.000
36	-0.030	0.115	-0.002	-0.008	0.030
37	0.033	-0.067	0.061	-0.037	-0.958
38	-0.034	0.058	-0.031	0.039	0.551
39	0.021	0.018	0.059	0.020	-0.194
40	0.025	0.061	-0.012	-0.024	0.025
41	-0.017	-0.021	-0.085	0.014	0.293
42	0.006	-0.011	-0.023	-0.034	-0.032
43	-0.004	0.001	0.020	-0.007	-0.066
44	-0.015	-0.021	-0.014	0.028	0.218

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.029	1.000			
38	0.021	-0.766	1.000		
39	0.010	0.135	0.045	1.000	
40	0.071	-0.042	0.068	0.029	1.000
41	-0.015	-0.246	0.063	0.049	0.020
42	-0.026	0.069	-0.128	0.049	0.007
43	-0.024	0.038	0.037	0.005	0.008



44	-0.020	-0.263	0.275	-0.110	0.030
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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	41	42	43	44
41	1.000			
42	0.623	1.000		
43	0.289	0.712	1.000	
44	0.025	-0.020	0.000	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.009	33
200	1.019	39
300	1.018	37
400	1.013	38
500	1.003	5
600	1.003	1
700	1.002	4
800	1.003	4
900	1.003	4
1000	1.002	4

Kessler score model

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

11	22
18	166
26	80
28	74 205
31	71
34	65
35	192
40	106 182
41	228
45	72 170
47	50
50	165 30 75 181
53	173
57	107
59	108 40
60	81 226 84
63	114
66	93
68	61 4
69	162
70	83 169
71	206
72	116 36
73	69
76	92
79	68
84	174
85	145 154
88	152
95	6
104	144 98 2
114	178
118	156
123	202
131	142

159	122
218	24
239	209
283	204
331	125
472	217
954	110
1083	100

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns	9
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## PROPORTION OF DATA PRESENT

	Covariance		Coverage		
	PHY15	KES15	KES16	CHOICE15	BULLY15
PHY15	0.958				
KES15	0.932	0.932			
KES16	0.958	0.932	1.000		
CHOICE15	0.925	0.925	0.925	0.925	
BULLY15	0.925	0.925	0.925	0.925	0.925
PRESS15	0.925	0.925	0.925	0.925	0.925
DUTIES15	0.926	0.926	0.926	0.925	0.925
PRAFAC	0.958	0.932	1.000	0.925	0.925

	Covariance	Coverage	
	PRESS15	DUTIES15	PRAFAC
PRESS15	0.925		
DUTIES15	0.925	0.926	
PRAFAC	0.925	0.926	1.000

## UNIVARIATE SAMPLE STATISTICS

# UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	1.956	0.559	1.000	28.98%	1.000	2.000	2.000
6676.000	0.605	0.164	5.000	0.24%	2.000	3.000	
KES15	0.605	1.665	0.000	18.88%	0.167	0.333	0.500
6495.000	0.391	3.340	4.000	0.11%	0.500	1.000	
KES16	0.673	1.459	0.000	15.84%	0.167	0.333	0.500
6968.000	0.430	2.260	4.000	0.07%	0.667	1.167	
CHOICE15	0.000	-0.355	-2.151	8.93%	-1.151	-0.151	-0.151
6447.000	1.137	-0.460	1.849	7.91%	0.849	0.849	
BULLY15	0.000	3.100	-0.200	85.49%	-0.200	-0.200	-0.200
6446.000	0.292	10.556	3.800	0.16%	-0.200	-0.200	
PRESS15	0.000	0.260	-1.525	18.02%	-0.525	-0.525	0.475
6447.000	1.060	-0.377	2.475	3.71%	0.475	0.475	
DUTIES15	0.000	-1.160	-3.067	2.54%	-1.067	-0.067	-0.067
6450.000	0.895	1.352	0.933	36.40%	-0.067	0.933	
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 44

## Information Criteria

Deviance (DIC) 100102.952  
Estimated Number of Parameters (pD) 153.699

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KES16 ON						
PHY15	0.057	0.008	0.000	0.041	0.072	*
CHOICE15	-0.013	0.006	0.009	-0.025	-0.002	*
BULLY15	0.049	0.012	0.000	0.025	0.072	*
DUTIES15	-0.029	0.007	0.000	-0.042	-0.016	*
PRESS15	-0.010	0.006	0.067	-0.021	0.003	
KES15 WITH						
PHY15	0.166	0.006	0.000	0.154	0.180	*
CHOICE15	-0.126	0.009	0.000	-0.142	-0.108	*
BULLY15	0.083	0.005	0.000	0.074	0.092	*
PRESS15	0.148	0.008	0.000	0.131	0.164	*
DUTIES15	-0.144	0.008	0.000	-0.159	-0.130	*
PHY15 WITH						
CHOICE15	-0.123	0.011	0.000	-0.144	-0.101	*
BULLY15	0.048	0.005	0.000	0.039	0.058	*
PRESS15	0.110	0.010	0.000	0.091	0.130	*
DUTIES15	-0.092	0.009	0.000	-0.110	-0.074	*
CHOICE15 WITH						
BULLY15	-0.082	0.007	0.000	-0.097	-0.068	*
PRESS15	-0.125	0.014	0.000	-0.152	-0.099	*
DUTIES15	0.185	0.013	0.000	0.159	0.209	*
BULLY15 WITH						
PRESS15	0.127	0.007	0.000	0.114	0.141	*
DUTIES15	-0.097	0.007	0.000	-0.111	-0.085	*
PRESS15 WITH						
DUTIES15	-0.211	0.013	0.000	-0.236	-0.187	*
Means						
CHOICE15	-0.001	0.013	0.479	-0.026	0.024	
BULLY15	0.001	0.007	0.459	-0.013	0.014	
PRESS15	0.001	0.013	0.469	-0.024	0.027	
DUTIES15	-0.001	0.012	0.463	-0.024	0.021	

Variances						
PHY15	0.601	0.010	0.000	0.582	0.621	*
KES15	0.389	0.007	0.000	0.376	0.403	*
CHOICE15	1.141	0.021	0.000	1.100	1.181	*
BULLY15	0.293	0.005	0.000	0.283	0.303	*
PRESS15	1.062	0.019	0.000	1.026	1.099	*
DUTIES15	0.898	0.016	0.000	0.868	0.930	*
Residual Variances						
KES16	0.223	0.004	0.000	0.215	0.231	*
Between Level						
S1	ON					
PRAFAC		-0.041	0.016	0.007	-0.073	-0.011 *
KES16	ON					
PRAFAC		-0.015	0.008	0.028	-0.030	0.000
PHY15		0.026	0.390	0.455	-0.594	0.620
KES15		0.797	0.360	0.012	0.205	1.397 *
PHY15	WITH					
KES15		0.005	0.002	0.001	0.001	0.010 *
Means						
PHY15		1.951	0.018	0.000	1.915	1.987 *
KES15		0.602	0.014	0.000	0.576	0.631 *
Intercepts						
KES16		0.130	0.578	0.362	-0.740	1.051
S1		0.654	0.019	0.000	0.617	0.690 *
Variances						
PHY15		0.009	0.004	0.000	0.003	0.018 *
KES15		0.005	0.002	0.000	0.003	0.009 *
Residual Variances						
KES16		0.001	0.001	0.000	0.000	0.003 *
S1		0.008	0.004	0.000	0.003	0.018 *

STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KES16 ON KES15	0.630	0.010	0.000	0.609	0.648	*
KES16 ON						
PHY15	0.068	0.010	0.000	0.049	0.086	*
CHOICE15	-0.022	0.010	0.010	-0.041	-0.003	*
BULLY15	0.040	0.010	0.000	0.022	0.060	*
DUTIES15	-0.042	0.010	0.000	-0.062	-0.023	*
PRESS15	-0.015	0.010	0.060	-0.033	0.005	
KES15 WITH						
PHY15	0.343	0.011	0.000	0.322	0.365	*
CHOICE15	-0.188	0.012	0.000	-0.212	-0.165	*
BULLY15	0.246	0.012	0.000	0.222	0.270	*
PRESS15	0.230	0.012	0.000	0.207	0.253	*
DUTIES15	-0.244	0.012	0.000	-0.267	-0.222	*
PHY15 WITH						
CHOICE15	-0.148	0.013	0.000	-0.172	-0.123	*
BULLY15	0.115	0.012	0.000	0.091	0.139	*
PRESS15	0.138	0.012	0.000	0.114	0.162	*
DUTIES15	-0.124	0.012	0.000	-0.149	-0.100	*
CHOICE15 WITH						
BULLY15	-0.143	0.012	0.000	-0.166	-0.118	*
PRESS15	-0.113	0.012	0.000	-0.138	-0.091	*
DUTIES15	0.183	0.012	0.000	0.160	0.206	*
BULLY15 WITH						
PRESS15	0.228	0.012	0.000	0.205	0.252	*
DUTIES15	-0.189	0.012	0.000	-0.213	-0.165	*
PRESS15 WITH						
DUTIES15	-0.216	0.012	0.000	-0.238	-0.192	*
Means						
CHOICE15	-0.001	0.013	0.461	-0.026	0.024	

BULLY15	0.001	0.012	0.456	-0.023	0.025	
PRESS15	0.001	0.012	0.463	-0.023	0.026	
DUTIES15	-0.002	0.012	0.448	-0.025	0.022	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KES16	0.533	0.011	0.000	0.513	0.555	*
Between Level						
S1 ON						
PRAFAC	-0.302	0.113	0.007	-0.514	-0.078	*
KES16 ON						
PRAFAC	-0.151	0.094	0.028	-0.361	0.001	
PHY15	0.035	0.413	0.455	-0.703	0.705	
KES15	0.849	0.362	0.012	0.214	1.433	*
PHY15 WITH						
KES15	0.729	0.172	0.001	0.279	0.960	*
Means						
PHY15	21.101	5.329	0.000	14.489	34.903	*
KES15	8.337	1.455	0.000	6.119	11.738	*
Intercepts						
KES16	1.884	8.414	0.362	-10.287	16.950	
S1	6.714	1.469	0.000	4.651	10.301	*
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KES16	0.155	0.133	0.000	0.009	0.510	*
S1	0.909	0.069	0.000	0.736	0.993	*



# R-SQUARE

## Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KES16	0.467	0.011	0.000	0.445	0.487

## Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KES16	0.845	0.133	0.000	0.490	0.991

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.091	0.069	0.000	0.007	0.264

## TECHNICAL 1 OUTPUT

### PARAMETER SPECIFICATION FOR WITHIN

NU	PHY15	KES15	KES16	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	0	0	0	0

NU	PRESS15	DUTIES15
	_____	_____
	0	0

LAMBDA	PHY15	KES15	KES16	CHOICE15	BULLY15
	_____	_____	_____	_____	_____

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
KES16	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# LAMBDA

	PRESS15	DUTIES15
PHY15	0	0
KES15	0	0
KES16	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# THETA

	PHY15	KES15	KES16	CHOICE15	BULLY15
PHY15	0				
KES15	0	0			
KES16	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

# ALPHA

	PHY15	KES15	KES16	CHOICE15	BULLY15
	0	0	0	1	2

ALPHA	
PRESS15	DUTIES15
<u>3</u>	<u>4</u>

BETA					
PHY15	KES15	KES16	CHOICE15	BULLY15	
PHY15	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
KES15	0	0	0	0	0
KES16	5	0	0	6	7
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15	DUTIES15	
PHY15	<u>0</u>	<u>0</u>
KES15	0	0
KES16	8	9
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
PHY15	KES15	KES16	CHOICE15	BULLY15	
PHY15	<u>10</u>	<u>12</u>	<u>13</u>	<u>16</u>	<u>20</u>
KES15	11	12	0	19	24
KES16	0	0	13	23	28
CHOICE15	14	15	0	16	29
BULLY15	17	18	0	19	20
PRESS15	21	22	0	23	24
DUTIES15	26	27	0	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u>          </u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

	NU				
	PHY15	KES15	KES16	PRAFAC	
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	

	LAMBDA				
	S1	PHY15	KES15	KES16	PRAFAC
PHY15	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
KES15	0	0	0	0	0
KES16	0	0	0	0	0
PRAFAC	0	0	0	0	0

	THETA				
	PHY15	KES15	KES16	PRAFAC	
PHY15	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	
KES15	0	0			
KES16	0	0	0		
PRAFAC	0	0	0	0	

	ALPHA				
	S1	PHY15	KES15	KES16	PRAFAC
	<u>32</u>	<u>33</u>	<u>34</u>	<u>35</u>	<u>0</u>

	BETA				
	S1	PHY15	KES15	KES16	PRAFAC
S1	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>36</u>

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
KES16	0	37	38	0	39
PRAFAC	0	0	0	0	0

PSI					
	S1	PHY15	KES15	KES16	PRAFAC
S1	<u>40</u>				
PHY15	0	41			
KES15	0	42	43		
KES16	0	0	0	44	
PRAFAC	0	0	0	0	0

STARTING VALUES FOR WITHIN

NU					
	PHY15	KES15	KES16	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

LAMBDA					
	PHY15	KES15	KES16	CHOICE15	BULLY15
PHY15	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KES15	0.000	1.000	0.000	0.000	0.000
KES16	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHY15	0.000	0.000
KES15	0.000	0.000
KES16	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHY15	KES15	KES16	CHOICE15	BULLY15
PHY15	0.000				
KES15	0.000	0.000			
KES16	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	PHY15	KES15	KES16	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	PHY15	KES15	KES16	CHOICE15	BULLY15

PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
KES16	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHY15	0.000	0.000
KES15	0.000	0.000
KES16	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHY15	KES15	KES16	CHOICE15	BULLY15
PHY15	0.303				
KES15	0.000	0.195			
KES16	0.000	0.000	0.215		
CHOICE15	0.000	0.000	0.000	0.569	
BULLY15	0.000	0.000	0.000	0.000	0.146
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.530	
DUTIES15	0.000	0.448

STARTING VALUES FOR BETWEEN

NU					
	PHY15	KES15	KES16	PRAFAC	
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
LAMBDA					
	S1	PHY15	KES15	KES16	PRAFAC
PHY15	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KES15	0.000	0.000	1.000	0.000	0.000
KES16	0.000	0.000	0.000	1.000	0.000
PRAFAC	0.000	0.000	0.000	0.000	1.000
THETA					
	PHY15	KES15	KES16	PRAFAC	
PHY15	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
KES15	0.000	0.000	0.000	0.000	
KES16	0.000	0.000	0.000	0.000	
PRAFAC	0.000	0.000	0.000	0.000	
ALPHA					
	S1	PHY15	KES15	KES16	PRAFAC
	<u>0.000</u>	<u>1.956</u>	<u>0.605</u>	<u>0.673</u>	<u>0.000</u>
BETA					
	S1	PHY15	KES15	KES16	PRAFAC
S1	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
KES16	0.000	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000	0.000
PSI					
	S1	PHY15	KES15	KES16	PRAFAC
S1	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>



PHY15	0.000	0.303			
KES15	0.000	0.000	0.195		
KES16	0.000	0.000	0.000	0.215	
PRAFAC	0.000	0.000	0.000	0.000	0.500

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 8~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 9~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 10~IW(0.000,-7)	infinity	infinity	infinity
Parameter 11~IW(0.000,-7)	infinity	infinity	infinity
Parameter 12~IW(0.000,-7)	infinity	infinity	infinity
Parameter 13~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 14~IW(0.000,-7)	infinity	infinity	infinity
Parameter 15~IW(0.000,-7)	infinity	infinity	infinity
Parameter 16~IW(0.000,-7)	infinity	infinity	infinity
Parameter 17~IW(0.000,-7)	infinity	infinity	infinity
Parameter 18~IW(0.000,-7)	infinity	infinity	infinity
Parameter 19~IW(0.000,-7)	infinity	infinity	infinity
Parameter 20~IW(0.000,-7)	infinity	infinity	infinity
Parameter 21~IW(0.000,-7)	infinity	infinity	infinity
Parameter 22~IW(0.000,-7)	infinity	infinity	infinity
Parameter 23~IW(0.000,-7)	infinity	infinity	infinity
Parameter 24~IW(0.000,-7)	infinity	infinity	infinity
Parameter 25~IW(0.000,-7)	infinity	infinity	infinity
Parameter 26~IW(0.000,-7)	infinity	infinity	infinity
Parameter 27~IW(0.000,-7)	infinity	infinity	infinity
Parameter 28~IW(0.000,-7)	infinity	infinity	infinity
Parameter 29~IW(0.000,-7)	infinity	infinity	infinity
Parameter 30~IW(0.000,-7)	infinity	infinity	infinity
Parameter 31~IW(0.000,-7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 40~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 41~IW(0.000,-3)	infinity	infinity	infinity
Parameter 42~IW(0.000,-3)	infinity	infinity	infinity
Parameter 43~IW(0.000,-3)	infinity	infinity	infinity
Parameter 44~IG(-1.000,0.000)	infinity	infinity	infinity

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.179306D-03				
2	-0.142852D-04	0.445934D-04			
3	-0.208264D-04	0.214302D-04	0.162020D-03		
4	0.255912D-04	-0.141064D-04	-0.273633D-04	0.140640D-03	
5	-0.648108D-06	-0.996805D-06	-0.275744D-05	-0.245803D-05	0.631897D-04
6	-0.402903D-06	0.591053D-07	-0.854305D-06	-0.954809D-06	0.489375D-05
7	-0.218363D-05	0.550146D-06	0.171903D-05	0.742676D-05	-0.351742D-05
8	0.178006D-05	-0.911362D-07	0.126615D-05	-0.372145D-05	-0.180888D-05
9	-0.285365D-05	0.221352D-05	0.413360D-05	-0.648808D-06	0.845983D-06
10	0.192456D-05	0.526022D-06	-0.332938D-05	-0.428879D-06	-0.374957D-05
11	-0.554081D-06	0.183380D-05	-0.124029D-05	-0.209991D-05	-0.180640D-05
12	0.326567D-06	0.860679D-06	0.349493D-06	-0.248361D-05	-0.205696D-05
13	0.100395D-05	-0.163243D-06	0.550721D-06	-0.135636D-06	-0.771034D-06
14	-0.898402D-06	-0.158481D-05	0.207117D-05	0.917288D-06	0.204837D-05
15	0.293951D-05	0.523742D-06	0.395940D-06	-0.373337D-05	0.369015D-06
16	-0.836147D-05	0.312074D-05	-0.608591D-06	-0.297118D-05	-0.682215D-06
17	-0.832274D-06	-0.129028D-05	-0.780193D-06	-0.566340D-06	-0.289014D-06
18	-0.238920D-06	-0.858595D-06	-0.235543D-05	0.203299D-05	-0.633035D-06
19	0.403186D-06	0.382150D-06	0.565203D-06	-0.182955D-05	-0.151979D-06
20	-0.192179D-06	0.299649D-06	-0.548003D-06	0.104273D-05	-0.123602D-05
21	0.278621D-05	-0.384582D-06	-0.201048D-05	0.138004D-05	-0.190071D-05
22	-0.959863D-06	0.555304D-06	-0.237466D-06	-0.227877D-05	-0.283071D-05
23	-0.703193D-05	-0.331896D-05	-0.736475D-06	0.231867D-05	0.511385D-05
24	0.108463D-05	-0.885373D-07	-0.406206D-05	0.337842D-05	-0.280078D-05
25	-0.366004D-05	0.728764D-06	0.154657D-04	0.134300D-05	-0.602846D-05
26	0.685483D-06	-0.789686D-06	-0.247754D-05	0.124508D-05	0.110180D-05
27	0.524199D-05	0.137727D-05	-0.282916D-05	-0.575348D-05	0.930383D-06

28	-0.539892D-05	-0.145366D-05	-0.109535D-05	0.458048D-05	0.122732D-05
29	0.436791D-05	0.834777D-06	0.245617D-05	0.768813D-06	-0.162498D-05
30	0.129731D-05	0.290354D-06	0.387683D-06	0.190121D-05	-0.190723D-05
31	-0.797209D-05	-0.244376D-05	0.330952D-05	0.303909D-05	0.244613D-05
32	-0.550964D-05	0.325020D-05	0.154795D-04	-0.127500D-04	-0.257280D-04
33	-0.235482D-04	0.688780D-05	0.127501D-04	-0.167646D-04	0.205579D-05
34	-0.268604D-04	0.947890D-05	0.166056D-04	-0.233939D-04	-0.651784D-06
35	0.182393D-03	-0.145249D-03	-0.154500D-03	0.487914D-05	0.254475D-03
36	0.191197D-05	0.393501D-05	0.612140D-05	-0.178309D-05	-0.598187D-05
37	-0.102660D-03	0.104238D-03	0.113174D-03	0.785575D-05	-0.165272D-03
38	0.387595D-04	-0.964083D-04	-0.120244D-03	-0.208835D-04	0.116195D-03
39	-0.153702D-05	-0.299230D-07	0.117217D-05	-0.109737D-05	-0.113469D-05
40	0.220397D-05	-0.166391D-06	0.181008D-06	-0.975340D-06	0.894166D-06
41	-0.486143D-06	0.693200D-06	-0.109792D-05	0.218986D-07	0.414955D-06
42	-0.648938D-07	0.316183D-07	-0.312153D-06	0.523049D-06	-0.283975D-06
43	0.177839D-06	-0.380702D-06	-0.545741D-06	0.844831D-06	-0.662376D-07
44	0.262884D-07	0.151252D-06	0.369828D-06	-0.270486D-06	0.420231D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.347558D-04				
7	0.416175D-05	0.145073D-03			
8	0.122209D-05	-0.104005D-04	0.363995D-04		
9	-0.511069D-05	0.725117D-05	0.570549D-05	0.443731D-04	
10	0.229904D-05	-0.420431D-05	0.242342D-05	-0.259207D-05	0.106447D-03
11	-0.682398D-07	0.186603D-05	-0.138456D-05	-0.138185D-05	0.314982D-04
12	-0.139732D-05	-0.597198D-06	-0.111809D-05	0.381888D-06	0.920922D-05
13	0.952988D-08	-0.459487D-06	-0.511309D-06	-0.796329D-06	0.610034D-06
14	0.109742D-06	0.904835D-06	-0.817103D-06	0.143794D-05	-0.285834D-04
15	0.817012D-06	-0.509646D-05	0.490994D-06	-0.265973D-06	-0.584255D-05
16	-0.890966D-06	0.351774D-05	0.431476D-05	0.187151D-06	0.551507D-05
17	0.718150D-07	-0.129040D-05	-0.419280D-06	-0.402682D-06	0.987421D-05
18	-0.549156D-06	0.435979D-06	-0.606895D-07	0.273912D-06	0.323953D-05
19	0.146466D-05	0.541611D-06	-0.207438D-06	0.480032D-06	-0.820908D-07
20	-0.149253D-06	0.480189D-07	0.424733D-06	0.184753D-05	0.153645D-05
21	-0.220900D-05	0.858207D-06	-0.727298D-06	0.321180D-05	0.215796D-04
22	-0.329647D-06	-0.279500D-06	0.416029D-06	0.186061D-05	0.108216D-04
23	-0.120922D-05	-0.733051D-05	-0.262223D-05	0.190010D-05	-0.110790D-04
24	0.130167D-06	-0.334909D-05	-0.354013D-06	0.340157D-05	0.335807D-05
25	-0.387308D-05	0.147527D-05	0.760180D-05	0.539201D-05	-0.779399D-06
26	0.189055D-05	0.437865D-05	0.123147D-05	0.921564D-06	-0.114471D-04
27	0.142460D-05	0.177771D-05	-0.752298D-06	-0.155875D-05	-0.337851D-05

28	-0.333000D-05	0.344722D-05	0.324339D-06	0.148765D-05	0.115442D-05
29	-0.149612D-05	0.100309D-05	-0.252014D-05	-0.269727D-05	0.557301D-06
30	-0.994823D-06	-0.603671D-05	-0.325040D-05	-0.438378D-05	-0.600702D-05
31	-0.670003D-06	-0.275243D-05	0.199672D-05	0.789050D-06	0.245165D-05
32	0.146708D-04	-0.121470D-04	-0.152797D-04	0.632445D-05	0.509580D-05
33	0.886615D-06	0.571995D-05	0.794614D-06	0.351234D-05	0.504077D-05
34	0.412602D-06	-0.165771D-05	0.399923D-07	-0.816986D-06	-0.777068D-06
35	0.596920D-04	-0.517340D-03	0.239315D-04	-0.161320D-03	-0.219187D-03
36	-0.206713D-05	0.916069D-06	-0.416411D-05	0.221287D-05	0.804816D-06
37	-0.928274D-05	0.331974D-03	-0.388364D-04	0.850694D-04	0.133089D-03
38	-0.679421D-04	-0.220132D-03	0.864048D-04	-0.811555D-05	-0.684543D-04
39	0.808883D-06	0.260480D-06	0.124529D-05	0.583802D-06	0.121381D-05
40	-0.179724D-06	-0.281478D-05	-0.124983D-06	-0.920900D-06	-0.708424D-07
41	0.338351D-06	-0.694158D-06	-0.852383D-06	-0.734523D-06	-0.242972D-05
42	-0.120567D-06	0.983537D-07	-0.404619D-06	0.119534D-06	-0.252411D-06
43	-0.332587D-06	0.457945D-06	-0.217727D-06	0.226716D-07	-0.560448D-06
44	0.121758D-06	0.180452D-06	0.476415D-07	0.215065D-06	-0.167864D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.401388D-04				
12	0.188867D-04	0.439629D-04			
13	-0.153635D-06	-0.307092D-06	0.150343D-04		
14	-0.189012D-04	-0.711003D-05	0.334744D-06	0.120773D-03	
15	-0.951367D-05	-0.141468D-04	-0.294216D-06	0.348820D-04	0.734804D-04
16	0.559667D-05	0.632350D-05	0.117956D-05	-0.519525D-04	-0.418043D-04
17	0.854820D-05	0.394666D-05	0.164867D-06	-0.114066D-04	-0.149019D-05
18	0.519488D-05	0.101875D-04	-0.261012D-07	-0.307199D-05	-0.589101D-05
19	0.150821D-07	-0.232911D-05	0.184618D-05	0.835948D-05	0.148404D-04
20	0.868158D-06	0.260493D-05	0.384973D-06	-0.228560D-05	-0.188734D-05
21	0.162850D-04	0.620516D-05	-0.441338D-06	-0.207363D-04	-0.513879D-05
22	0.121465D-04	0.159338D-04	-0.372929D-06	-0.827445D-05	-0.110832D-04
23	-0.755307D-05	-0.716253D-05	0.145917D-06	0.294045D-04	0.270594D-04
24	0.302929D-05	0.391952D-05	-0.691061D-06	-0.437308D-05	-0.119974D-05
25	0.174841D-05	0.376355D-05	-0.352933D-06	-0.700077D-05	-0.153176D-05
26	-0.132812D-04	-0.561636D-05	0.788669D-06	0.198548D-04	0.679960D-05
27	-0.877945D-05	-0.157026D-04	0.465857D-06	0.657176D-05	0.139806D-04
28	0.176564D-05	0.117110D-05	0.203906D-06	-0.211893D-04	-0.274302D-04
29	-0.234937D-05	-0.414112D-05	0.123316D-05	0.206768D-05	0.345062D-05
30	-0.438822D-05	-0.653567D-05	-0.947672D-06	0.769275D-05	0.397735D-05
31	0.371306D-05	0.699282D-05	-0.733153D-06	-0.438446D-05	-0.108821D-04
32	-0.319233D-05	-0.504377D-05	-0.507531D-06	-0.483952D-05	0.374922D-05

33	0.244318D-05	0.964824D-06	-0.292060D-05	-0.946111D-05	-0.528968D-06
34	0.226949D-05	0.401794D-05	0.937380D-06	-0.364883D-05	-0.290093D-05
35	0.723282D-04	-0.918973D-06	-0.325042D-04	-0.170339D-03	0.645847D-04
36	0.123944D-05	-0.172448D-05	0.787011D-06	0.513706D-06	0.694732D-06
37	-0.376880D-04	-0.334390D-05	0.206081D-04	0.112635D-03	-0.480660D-04
38	0.286776D-05	0.785913D-05	-0.135976D-04	-0.851923D-04	0.490164D-04
39	0.932700D-06	0.335286D-07	-0.126246D-05	-0.500510D-06	-0.207396D-05
40	-0.455511D-06	0.326928D-09	-0.944779D-07	-0.157377D-05	0.797957D-06
41	-0.544573D-06	0.186282D-06	0.265738D-06	0.206298D-05	0.183810D-05
42	-0.195948D-06	0.310173D-06	-0.106698D-06	-0.462034D-06	0.602716D-07
43	-0.225852D-06	0.320571D-06	-0.236574D-06	-0.695421D-06	-0.605899D-06
44	-0.294147D-07	-0.660219D-07	-0.218058D-07	-0.199088D-06	0.107972D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.424693D-03				
17	0.353812D-05	0.273074D-04			
18	0.799590D-05	0.841083D-05	0.203840D-04		
19	-0.297083D-04	-0.450622D-05	-0.792574D-05	0.529738D-04	
20	0.611474D-05	0.409628D-05	0.874326D-05	-0.908574D-05	0.268921D-04
21	0.314505D-05	0.120464D-04	0.320799D-05	-0.197815D-05	0.376898D-06
22	0.178734D-05	0.603072D-05	0.102358D-04	-0.527051D-05	0.378963D-05
23	-0.503567D-04	-0.492412D-05	-0.407466D-05	0.250571D-04	-0.494750D-05
24	0.406612D-05	0.640502D-05	0.912556D-05	-0.883507D-05	0.116332D-04
25	0.821815D-06	0.364837D-05	0.391791D-05	-0.652525D-05	0.250349D-05
26	-0.107191D-04	-0.100881D-04	-0.274438D-05	0.111805D-05	0.115304D-05
27	-0.100132D-04	-0.425558D-05	-0.803259D-05	0.362646D-05	-0.216738D-05
28	0.611634D-04	0.342851D-05	0.676659D-05	-0.182711D-04	0.511549D-05
29	-0.115286D-04	-0.473744D-05	-0.911888D-05	0.107341D-04	-0.949062D-05
30	-0.135414D-04	-0.485980D-05	-0.734051D-05	0.890040D-05	-0.387954D-05
31	0.124052D-04	0.565005D-05	0.555473D-05	-0.800198D-05	0.172570D-05
32	0.104461D-04	0.114143D-05	0.148721D-05	0.180509D-05	-0.170282D-05
33	-0.661647D-05	0.360905D-06	-0.891289D-06	-0.822393D-06	-0.177732D-05
34	-0.155562D-04	-0.996719D-06	0.473268D-06	-0.212494D-06	-0.219547D-05
35	-0.127334D-03	0.432696D-04	-0.772058D-05	0.414456D-04	0.344125D-04
36	-0.863283D-05	-0.525496D-06	0.211651D-06	-0.582390D-06	0.161265D-06
37	0.948577D-04	-0.312310D-04	0.769584D-06	-0.201468D-04	-0.381066D-04
38	-0.997180D-04	0.273283D-04	0.995418D-05	-0.238745D-05	0.668379D-04
39	0.525267D-05	-0.240805D-06	0.449467D-06	-0.279807D-05	0.836683D-06
40	0.736352D-08	0.552761D-07	-0.548919D-06	0.136964D-05	-0.675746D-06
41	-0.284160D-05	-0.312521D-07	0.517277D-06	0.331706D-06	0.281405D-06
42	-0.136700D-05	0.371294D-07	-0.587203D-07	0.461376D-06	-0.272344D-06

43	-0.879986D-06	-0.126312D-06	-0.629729D-07	0.393095D-06	-0.548747D-06
44	-0.561258D-06	0.122024D-06	-0.946930D-07	0.114125D-06	-0.409593D-07

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.103836D-03				
22	0.300664D-04	0.705849D-04			
23	-0.257957D-04	-0.254390D-04	0.183387D-03		
24	0.114229D-04	0.173054D-04	-0.170900D-04	0.498803D-04	
25	0.404883D-04	0.599037D-04	-0.424453D-04	0.404955D-04	0.370798D-03
26	-0.224548D-04	-0.729421D-05	0.118778D-04	-0.194171D-05	-0.704537D-05
27	-0.699874D-05	-0.142712D-04	0.785984D-05	-0.547578D-05	-0.112438D-04
28	0.412454D-05	0.819937D-05	-0.374047D-04	0.270279D-05	0.132556D-04
29	-0.992188D-06	-0.535426D-05	0.670763D-05	-0.119461D-04	-0.834401D-05
30	-0.138377D-04	-0.306422D-04	0.401943D-04	-0.209264D-04	-0.742518D-04
31	0.563779D-05	0.789566D-05	-0.113846D-04	0.480047D-05	0.115410D-04
32	0.402443D-05	-0.832093D-05	0.499219D-05	0.434356D-05	0.498783D-05
33	0.988786D-05	0.686466D-05	0.709611D-05	0.189203D-06	-0.291902D-06
34	0.644765D-05	0.707419D-05	0.109651D-05	-0.125692D-05	0.451898D-05
35	-0.805537D-04	-0.584427D-04	-0.786647D-04	0.216673D-05	-0.176980D-03
36	-0.556530D-05	-0.313236D-05	0.844755D-05	-0.410824D-05	-0.770324D-05
37	0.413338D-04	0.403664D-04	0.534958D-04	-0.676701D-06	0.939734D-04
38	-0.293378D-07	-0.366695D-04	-0.301964D-04	-0.433152D-05	-0.360064D-04
39	-0.131022D-05	-0.221834D-05	-0.182834D-05	-0.756927D-06	0.525427D-06
40	0.108758D-05	0.967477D-06	0.188729D-05	-0.725713D-06	0.233884D-05
41	-0.244949D-05	-0.217333D-05	0.490781D-06	-0.559071D-06	-0.401176D-05
42	-0.858285D-07	-0.764803D-06	-0.253503D-06	-0.921714D-07	-0.761145D-06
43	0.169990D-06	0.237320D-06	-0.227417D-06	-0.124728D-06	-0.720861D-06
44	-0.346395D-07	-0.256721D-07	-0.209770D-06	0.158909D-06	0.523373D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.861865D-04				
27	0.248503D-04	0.580166D-04			
28	-0.178087D-04	-0.213694D-04	0.162921D-03		
29	0.521831D-05	0.146554D-04	-0.144342D-04	0.436830D-04	
30	0.191937D-04	0.233653D-04	-0.260385D-04	0.209626D-04	0.157467D-03
31	-0.237022D-04	-0.393066D-04	0.537728D-04	-0.269232D-04	-0.611108D-04
32	0.621787D-06	0.780722D-05	-0.308916D-05	0.501624D-05	0.785557D-05
33	-0.441320D-07	-0.287223D-06	-0.641625D-05	0.374283D-05	0.458855D-05

34	-0.247908D-06	-0.304621D-05	-0.725185D-06	0.387225D-05	-0.325823D-05
35	0.207492D-03	0.208860D-03	0.101601D-04	0.156983D-04	0.271100D-03
36	0.217205D-05	0.416033D-05	-0.390102D-05	-0.729668D-07	0.864208D-05
37	-0.133154D-03	-0.139436D-03	0.147555D-04	-0.173267D-04	-0.171726D-03
38	0.909602D-04	0.107381D-03	-0.687038D-04	0.325074D-04	0.115575D-03
39	0.140817D-05	0.626257D-06	0.377089D-05	-0.186633D-05	-0.304162D-06
40	-0.114642D-05	-0.284971D-06	0.520199D-06	-0.160613D-06	0.494474D-08
41	0.178946D-05	-0.164651D-06	0.583448D-06	0.196462D-06	0.108867D-05
42	0.639896D-06	0.692432D-07	0.445823D-06	0.119870D-06	0.404550D-06
43	0.320450D-06	-0.149099D-06	0.484177D-06	-0.435039D-07	0.414813D-06
44	-0.439074D-07	0.890531D-07	0.346888D-06	0.128846D-06	0.177642D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.248124D-03				
32	-0.212557D-04	0.362981D-03			
33	-0.197702D-05	0.147719D-04	0.329350D-03		
34	-0.542657D-06	0.922829D-05	0.143995D-03	0.192217D-03	
35	-0.599772D-03	0.377143D-03	0.205929D-04	-0.116127D-03	0.334065D+00
36	-0.145625D-04	0.378688D-04	-0.173350D-05	0.372421D-05	0.251953D-03
37	0.414421D-03	-0.220796D-03	-0.264237D-04	0.784612D-04	-0.221879D+00
38	-0.342680D-03	0.842875D-04	0.435748D-04	-0.786876D-04	0.164737D+00
39	0.392506D-05	-0.135938D-05	0.634393D-05	0.739537D-06	-0.802797D-03
40	0.146402D-05	-0.140885D-05	-0.490695D-06	-0.777437D-06	0.857854D-04
41	-0.150488D-05	-0.146123D-05	-0.677190D-05	-0.203460D-06	-0.353276D-04
42	-0.417956D-06	0.207752D-06	-0.102293D-05	-0.818546D-06	0.180152D-04
43	-0.186949D-06	0.237209D-06	0.468082D-06	-0.434891D-06	-0.123879D-04
44	-0.582797D-07	-0.632898D-06	0.117522D-06	0.339233D-06	0.391737D-07

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.248137D-03				
37	-0.167650D-03	0.152000D+00			
38	0.131653D-03	-0.124353D+00	0.129613D+00		
39	0.622541D-06	0.399655D-03	0.450628D-04	0.633346D-04	
40	-0.684443D-05	-0.661761D-04	0.722723D-04	-0.513206D-07	0.148034D-04
41	-0.160383D-05	0.325533D-04	-0.435000D-04	-0.258878D-06	0.695187D-07
42	-0.235336D-05	-0.871739D-05	-0.595791D-06	0.477838D-06	0.382853D-06
43	-0.221988D-05	0.137678D-04	-0.236007D-04	0.167491D-06	0.123167D-06
44	-0.258747D-06	0.929748D-06	-0.450026D-05	-0.434456D-06	-0.304374D-07

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES			
	41	42	43	44
41	0.148864D-04			
42	0.515298D-05	0.437463D-05		
43	0.212935D-05	0.278602D-05	0.326925D-05	
44	0.416584D-07	-0.203995D-07	-0.238417D-07	0.490885D-06

	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	-0.160	1.000			
3	-0.122	0.252	1.000		
4	0.161	-0.178	-0.181	1.000	
5	-0.006	-0.019	-0.027	-0.026	1.000
6	-0.005	0.002	-0.011	-0.014	0.104
7	-0.014	0.007	0.011	0.052	-0.037
8	0.022	-0.002	0.016	-0.052	-0.038
9	-0.032	0.050	0.049	-0.008	0.016
10	0.014	0.008	-0.025	-0.004	-0.046
11	-0.007	0.043	-0.015	-0.028	-0.036
12	0.004	0.019	0.004	-0.032	-0.039
13	0.019	-0.006	0.011	-0.003	-0.025
14	-0.006	-0.022	0.015	0.007	0.023
15	0.026	0.009	0.004	-0.037	0.005
16	-0.030	0.023	-0.002	-0.012	-0.004
17	-0.012	-0.037	-0.012	-0.009	-0.007
18	-0.004	-0.028	-0.041	0.038	-0.018
19	0.004	0.008	0.006	-0.021	-0.003
20	-0.003	0.009	-0.008	0.017	-0.030
21	0.020	-0.006	-0.016	0.011	-0.023
22	-0.009	0.010	-0.002	-0.023	-0.042
23	-0.039	-0.037	-0.004	0.014	0.048
24	0.011	-0.002	-0.045	0.040	-0.050
25	-0.014	0.006	0.063	0.006	-0.039
26	0.006	-0.013	-0.021	0.011	0.015
27	0.051	0.027	-0.029	-0.064	0.015
28	-0.032	-0.017	-0.007	0.030	0.012
29	0.049	0.019	0.029	0.010	-0.031
30	0.008	0.003	0.002	0.013	-0.019



31	-0.038	-0.023	0.017	0.016	0.020
32	-0.022	0.026	0.064	-0.056	-0.170
33	-0.097	0.057	0.055	-0.078	0.014
34	-0.145	0.102	0.094	-0.142	-0.006
35	0.024	-0.038	-0.021	0.001	0.055
36	0.009	0.037	0.031	-0.010	-0.048
37	-0.020	0.040	0.023	0.002	-0.053
38	0.008	-0.040	-0.026	-0.005	0.041
39	-0.014	-0.001	0.012	-0.012	-0.018
40	0.043	-0.006	0.004	-0.021	0.029
41	-0.009	0.027	-0.022	0.000	0.014
42	-0.002	0.002	-0.012	0.021	-0.017
43	0.007	-0.032	-0.024	0.039	-0.005
44	0.003	0.032	0.041	-0.033	0.075

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.059	1.000			
8	0.034	-0.143	1.000		
9	-0.130	0.090	0.142	1.000	
10	0.038	-0.034	0.039	-0.038	1.000
11	-0.002	0.024	-0.036	-0.033	0.482
12	-0.036	-0.007	-0.028	0.009	0.135
13	0.000	-0.010	-0.022	-0.031	0.015
14	0.002	0.007	-0.012	0.020	-0.252
15	0.016	-0.049	0.009	-0.005	-0.066
16	-0.007	0.014	0.035	0.001	0.026
17	0.002	-0.021	-0.013	-0.012	0.183
18	-0.021	0.008	-0.002	0.009	0.070
19	0.034	0.006	-0.005	0.010	-0.001
20	-0.005	0.001	0.014	0.053	0.029
21	-0.037	0.007	-0.012	0.047	0.205
22	-0.007	-0.003	0.008	0.033	0.125
23	-0.015	-0.045	-0.032	0.021	-0.079
24	0.003	-0.039	-0.008	0.072	0.046
25	-0.034	0.006	0.065	0.042	-0.004
26	0.035	0.039	0.022	0.015	-0.120
27	0.032	0.019	-0.016	-0.031	-0.043
28	-0.044	0.022	0.004	0.017	0.009
29	-0.038	0.013	-0.063	-0.061	0.008
30	-0.013	-0.040	-0.043	-0.052	-0.046

31	-0.007	-0.015	0.021	0.008	0.015
32	0.131	-0.053	-0.133	0.050	0.026
33	0.008	0.026	0.007	0.029	0.027
34	0.005	-0.010	0.000	-0.009	-0.005
35	0.018	-0.074	0.007	-0.042	-0.037
36	-0.022	0.005	-0.044	0.021	0.005
37	-0.004	0.071	-0.017	0.033	0.033
38	-0.032	-0.051	0.040	-0.003	-0.018
39	0.017	0.003	0.026	0.011	0.015
40	-0.008	-0.061	-0.005	-0.036	-0.002
41	0.015	-0.015	-0.037	-0.029	-0.061
42	-0.010	0.004	-0.032	0.009	-0.012
43	-0.031	0.021	-0.020	0.002	-0.030
44	0.029	0.021	0.011	0.046	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.450	1.000			
13	-0.006	-0.012	1.000		
14	-0.271	-0.098	0.008	1.000	
15	-0.175	-0.249	-0.009	0.370	1.000
16	0.043	0.046	0.015	-0.229	-0.237
17	0.258	0.114	0.008	-0.199	-0.033
18	0.182	0.340	-0.001	-0.062	-0.152
19	0.000	-0.048	0.065	0.105	0.238
20	0.026	0.076	0.019	-0.040	-0.042
21	0.252	0.092	-0.011	-0.185	-0.059
22	0.228	0.286	-0.011	-0.090	-0.154
23	-0.088	-0.080	0.003	0.198	0.233
24	0.068	0.084	-0.025	-0.056	-0.020
25	0.014	0.029	-0.005	-0.033	-0.009
26	-0.226	-0.091	0.022	0.195	0.085
27	-0.182	-0.311	0.016	0.079	0.214
28	0.022	0.014	0.004	-0.151	-0.251
29	-0.056	-0.094	0.048	0.028	0.061
30	-0.055	-0.079	-0.019	0.056	0.037
31	0.037	0.067	-0.012	-0.025	-0.081
32	-0.026	-0.040	-0.007	-0.023	0.023
33	0.021	0.008	-0.042	-0.047	-0.003
34	0.026	0.044	0.017	-0.024	-0.024
35	0.020	0.000	-0.015	-0.027	0.013

36	0.012	-0.017	0.013	0.003	0.005
37	-0.015	-0.001	0.014	0.026	-0.014
38	0.001	0.003	-0.010	-0.022	0.016
39	0.018	0.001	-0.041	-0.006	-0.030
40	-0.019	0.000	-0.006	-0.037	0.024
41	-0.022	0.007	0.018	0.049	0.056
42	-0.015	0.022	-0.013	-0.020	0.003
43	-0.020	0.027	-0.034	-0.035	-0.039
44	-0.007	-0.014	-0.008	-0.026	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.033	1.000			
18	0.086	0.356	1.000		
19	-0.198	-0.118	-0.241	1.000	
20	0.057	0.151	0.373	-0.241	1.000
21	0.015	0.226	0.070	-0.027	0.007
22	0.010	0.137	0.270	-0.086	0.087
23	-0.180	-0.070	-0.067	0.254	-0.070
24	0.028	0.174	0.286	-0.172	0.318
25	0.002	0.036	0.045	-0.047	0.025
26	-0.056	-0.208	-0.065	0.017	0.024
27	-0.064	-0.107	-0.234	0.065	-0.055
28	0.233	0.051	0.117	-0.197	0.077
29	-0.085	-0.137	-0.306	0.223	-0.277
30	-0.052	-0.074	-0.130	0.097	-0.060
31	0.038	0.069	0.078	-0.070	0.021
32	0.027	0.011	0.017	0.013	-0.017
33	-0.018	0.004	-0.011	-0.006	-0.019
34	-0.054	-0.014	0.008	-0.002	-0.031
35	-0.011	0.014	-0.003	0.010	0.011
36	-0.027	-0.006	0.003	-0.005	0.002
37	0.012	-0.015	0.000	-0.007	-0.019
38	-0.013	0.015	0.006	-0.001	0.036
39	0.032	-0.006	0.013	-0.048	0.020
40	0.000	0.003	-0.032	0.049	-0.034
41	-0.036	-0.002	0.030	0.012	0.014
42	-0.032	0.003	-0.006	0.030	-0.025
43	-0.024	-0.013	-0.008	0.030	-0.059
44	-0.039	0.033	-0.030	0.022	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	1.000				
22	0.351	1.000			
23	-0.187	-0.224	1.000		
24	0.159	0.292	-0.179	1.000	
25	0.206	0.370	-0.163	0.298	1.000
26	-0.237	-0.094	0.094	-0.030	-0.039
27	-0.090	-0.223	0.076	-0.102	-0.077
28	0.032	0.076	-0.216	0.030	0.054
29	-0.015	-0.096	0.075	-0.256	-0.066
30	-0.108	-0.291	0.237	-0.236	-0.307
31	0.035	0.060	-0.053	0.043	0.038
32	0.021	-0.052	0.019	0.032	0.014
33	0.053	0.045	0.029	0.001	-0.001
34	0.046	0.061	0.006	-0.013	0.017
35	-0.014	-0.012	-0.010	0.001	-0.016
36	-0.035	-0.024	0.040	-0.037	-0.025
37	0.010	0.012	0.010	0.000	0.013
38	0.000	-0.012	-0.006	-0.002	-0.005
39	-0.016	-0.033	-0.017	-0.013	0.003
40	0.028	0.030	0.036	-0.027	0.032
41	-0.062	-0.067	0.009	-0.021	-0.054
42	-0.004	-0.044	-0.009	-0.006	-0.019
43	0.009	0.016	-0.009	-0.010	-0.021
44	-0.005	-0.004	-0.022	0.032	0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	1.000				
27	0.351	1.000			
28	-0.150	-0.220	1.000		
29	0.085	0.291	-0.171	1.000	
30	0.165	0.244	-0.163	0.253	1.000
31	-0.162	-0.328	0.267	-0.259	-0.309
32	0.004	0.054	-0.013	0.040	0.033
33	0.000	-0.002	-0.028	0.031	0.020
34	-0.002	-0.029	-0.004	0.042	-0.019
35	0.039	0.047	0.001	0.004	0.037
36	0.015	0.035	-0.019	-0.001	0.044

37	-0.037	-0.047	0.003	-0.007	-0.035
38	0.027	0.039	-0.015	0.014	0.026
39	0.019	0.010	0.037	-0.035	-0.003
40	-0.032	-0.010	0.011	-0.006	0.000
41	0.050	-0.006	0.012	0.008	0.022
42	0.033	0.004	0.017	0.009	0.015
43	0.019	-0.011	0.021	-0.004	0.018
44	-0.007	0.017	0.039	0.028	0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.071	1.000			
33	-0.007	0.043	1.000		
34	-0.002	0.035	0.572	1.000	
35	-0.066	0.034	0.002	-0.014	1.000
36	-0.059	0.126	-0.006	0.017	0.028
37	0.067	-0.030	-0.004	0.015	-0.985
38	-0.060	0.012	0.007	-0.016	0.792
39	0.031	-0.009	0.044	0.007	-0.175
40	0.024	-0.019	-0.007	-0.015	0.039
41	-0.025	-0.020	-0.097	-0.004	-0.016
42	-0.013	0.005	-0.027	-0.028	0.015
43	-0.007	0.007	0.014	-0.017	-0.012
44	-0.005	-0.047	0.009	0.035	0.000

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.027	1.000			
38	0.023	-0.886	1.000		
39	0.005	0.129	0.016	1.000	
40	-0.113	-0.044	0.052	-0.002	1.000
41	-0.026	0.022	-0.031	-0.008	0.005
42	-0.071	-0.011	-0.001	0.029	0.048
43	-0.078	0.020	-0.036	0.012	0.018
44	-0.023	0.003	-0.018	-0.078	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44
41	1.000			
42	0.639	1.000		
43	0.305	0.737	1.000	
44	0.015	-0.014	-0.019	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.009	33
200	1.006	39
300	1.004	35
400	1.002	15
500	1.001	1
600	1.002	1
700	1.002	4
800	1.003	4
900	1.003	4
1000	1.002	4

These are the models using categories from the latent profile analysis instead of the dimension derived from principal component analysis

This is deterioration in physical health

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2

95	156 202
96	144
108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.947	0.947	0.947	0.947	
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.915			
BULLY15	0.915	0.915		
PRESS15	0.915	0.914	0.915	



DUTIES15            0.915            0.915            0.915            0.915

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16  
 Category 1    0.881            4884.000  
 Category 2    0.119            662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
 OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

# MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-26.525 22.393

Posterior Predictive P-Value 0.529

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.971	0.068	0.000	0.839	1.106	*
CHOICE15	-0.067	0.025	0.003	-0.116	-0.018	*
BULLY15	0.028	0.049	0.281	-0.070	0.119	
DUTIES15	-0.029	0.027	0.133	-0.084	0.023	
PRESS15	-0.032	0.027	0.107	-0.082	0.022	
KES15	0.224	0.044	0.000	0.139	0.311	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.093	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.001	0.005	0.018	*
PRESS15	0.038	0.007	0.000	0.026	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						

BULLY15	-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15	-0.086	0.015	0.000	-0.118	-0.060	*
DUTIES15	0.173	0.013	0.000	0.148	0.201	*
BULLY15 WITH						
PRESS15	0.104	0.007	0.000	0.092	0.118	*
DUTIES15	-0.077	0.006	0.000	-0.090	-0.065	*
PRESS15 WITH						
DUTIES15	-0.185	0.013	0.000	-0.212	-0.160	*
Means						
PHY15	0.002	0.007	0.370	-0.011	0.015	
KES15	0.001	0.008	0.446	-0.014	0.015	
CHOICE15	-0.002	0.015	0.449	-0.029	0.028	
BULLY15	0.001	0.007	0.475	-0.013	0.015	
PRESS15	0.001	0.014	0.481	-0.026	0.029	
DUTIES15	-0.001	0.013	0.471	-0.026	0.025	
Variances						
PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.289	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.122	*
BULLY15	0.239	0.005	0.000	0.230	0.248	*
PRESS15	1.000	0.020	0.000	0.963	1.040	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*
Between Level						
PHYCAT16 ON						
CLU2	-0.206	0.095	0.013	-0.398	-0.025	*
CLU3	-0.021	0.088	0.411	-0.186	0.155	
CLU2 WITH						
CLU3	-0.137	0.038	0.000	-0.228	-0.076	*
Means						
CLU2	0.309	0.063	0.000	0.180	0.439	*
CLU3	0.447	0.068	0.000	0.314	0.585	*
Thresholds						
PHYCAT16\$1	1.259	0.076	0.000	1.112	1.406	*
Variances						

CLU2	0.230	0.044	0.000	0.166	0.330	*
CLU3	0.262	0.050	0.000	0.185	0.376	*
Residual Variances						
PHYCAT16	0.015	0.012	0.000	0.001	0.048	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		Significance
Within Level							
PHYCAT16 ON							
PHY15		0.416	0.024	0.000	0.367	0.462	*
CHOICE15		-0.062	0.023	0.003	-0.106	-0.017	*
BULLY15		0.012	0.021	0.281	-0.030	0.051	
DUTIES15		-0.024	0.022	0.133	-0.069	0.019	
PRESS15		-0.028	0.024	0.107	-0.073	0.019	
KES15		0.107	0.021	0.000	0.067	0.149	*
KES15 WITH							
PHY15		0.198	0.013	0.000	0.170	0.223	*
CHOICE15		-0.159	0.014	0.000	-0.187	-0.132	*
BULLY15		0.218	0.013	0.000	0.193	0.244	*
PRESS15		0.186	0.014	0.000	0.157	0.212	*
DUTIES15		-0.213	0.013	0.000	-0.240	-0.187	*
PHY15 WITH							
CHOICE15		-0.072	0.014	0.000	-0.099	-0.045	*
BULLY15		0.049	0.014	0.001	0.021	0.076	*
PRESS15		0.079	0.014	0.000	0.053	0.107	*
DUTIES15		-0.081	0.014	0.000	-0.107	-0.054	*
CHOICE15 WITH							
BULLY15		-0.114	0.014	0.000	-0.141	-0.088	*
PRESS15		-0.083	0.014	0.000	-0.113	-0.058	*
DUTIES15		0.179	0.013	0.000	0.154	0.206	*
BULLY15 WITH							
PRESS15		0.214	0.013	0.000	0.189	0.239	*

DUTIES15	-0.171	0.013	0.000	-0.197	-0.145	*
PRESS15 WITH DUTIES15	-0.200	0.013	0.000	-0.227	-0.174	*
Means						
PHY15	0.004	0.014	0.370	-0.024	0.031	
KES15	0.002	0.014	0.446	-0.025	0.028	
CHOICE15	-0.002	0.014	0.449	-0.028	0.026	
BULLY15	0.001	0.014	0.475	-0.026	0.030	
PRESS15	0.001	0.014	0.481	-0.026	0.029	
DUTIES15	-0.001	0.014	0.471	-0.028	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON						
CLU2	-0.630	0.243	0.013	-1.047	-0.079	*
CLU3	-0.072	0.280	0.411	-0.578	0.528	
CLU2 WITH CLU3	-0.562	0.089	0.000	-0.711	-0.365	*
Means						
CLU2	0.646	0.143	0.000	0.365	0.928	*
CLU3	0.878	0.154	0.000	0.575	1.192	*
Thresholds						
PHYCAT16\$1	7.840	2.941	0.000	4.642	15.956	*
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.587	0.199	0.000	0.169	0.927	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.215	0.021	0.000	0.177	0.258

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.413	0.199	0.000	0.073	0.831

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU				
PHYCAT16				
<div><div></div><div>0</div></div>				
NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>
NU				
PRESS15	DUTIES15			
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>			
LAMBDA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15

PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15

	0	1	2	3	4
ALPHA					
PRESS15		DUTIES15			
	<hr/> 5	<hr/> 6			
BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
BETA					
PRESS15		DUTIES15			
	<hr/>	<hr/>			
PHYCAT16	11	12			
PHY15	0	0			
KES15	0	0			
CHOICE15	0	0			
BULLY15	0	0			
PRESS15	0	0			
DUTIES15	0	0			
PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31



	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>42</u>

NU			
PHYCAT16	CLU2	CLU3	
<u>0</u>	<u>0</u>	<u>0</u>	

LAMBDA			
PHYCAT16	CLU2	CLU3	
<u>0</u>	<u>0</u>	<u>0</u>	
PHYCAT16	0	0	0
CLU2	0	0	0
CLU3	0	0	0

THETA			
PHYCAT16	CLU2	CLU3	
<u>0</u>	<u>0</u>	<u>0</u>	
PHYCAT16	0	0	0
CLU2	0	0	0
CLU3	0	0	0

ALPHA			
PHYCAT16	CLU2	CLU3	
<u>0</u>	<u>34</u>	<u>35</u>	

BETA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	<u>0</u>	<u>36</u>	<u>37</u>
CLU2	0	0	0
CLU3	0	0	0

PSI			
	PHYCAT16	CLU2	CLU3
PHYCAT16	<u>38</u>	<u></u>	<u></u>
CLU2	0	39	
CLU3	0	40	41

STARTING VALUES FOR WITHIN

TAU	
	PHYCAT16
	<u>0.000</u>

NU					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 1.000	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
<hr/>	<hr/>

PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU	
PHYCAT16	
	<hr/>
	1.110

NU			
PHYCAT16	CLU2	CLU3	
	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	

LAMBDA			
PHYCAT16	CLU2	CLU3	
	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000
CLU2	0.000	1.000	0.000
CLU3	0.000	0.000	1.000

THETA			
PHYCAT16	CLU2	CLU3	
	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000		
CLU2	0.000	0.000	
CLU3	0.000	0.000	0.000

ALPHA			
PHYCAT16	CLU2	CLU3	
	<hr/>	<hr/>	<hr/>
0.000	0.406	0.471	

BETA			
PHYCAT16	CLU2	CLU3	
	<hr/>	<hr/>	<hr/>

PHYCAT16	0.000	0.000	0.000
CLU2	0.000	0.000	0.000
CLU3	0.000	0.000	0.000

	PSI		
	PHYCAT16	CLU2	CLU3
PHYCAT16	1.000		
CLU2	0.000	0.121	
CLU3	0.000	0.000	0.125

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity

Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.448757D-04				
2	0.119472D-04	0.581402D-04			
3	-0.839971D-05	-0.194671D-04	0.221296D-03		
4	0.414070D-05	0.135792D-04	-0.120735D-04	0.493765D-04	
5	0.584452D-05	0.187815D-04	-0.187500D-04	0.223986D-04	0.195630D-03
6	-0.946674D-05	-0.167614D-04	0.353855D-04	-0.142923D-04	-0.310581D-04
7	-0.118671D-04	-0.355603D-05	-0.189452D-04	-0.100782D-04	-0.408880D-04
8	-0.375134D-05	-0.622916D-05	0.221375D-04	0.235138D-05	-0.877889D-05
9	-0.959530D-05	-0.254040D-05	0.176568D-04	-0.119344D-05	0.202089D-05
10	0.102786D-04	-0.572257D-05	-0.109233D-04	0.102000D-04	-0.231774D-04
11	0.907085D-05	0.586503D-05	0.102546D-04	-0.247166D-05	0.476186D-05
12	0.435816D-05	0.402073D-05	-0.156487D-04	0.508802D-05	0.187976D-05
13	-0.408432D-06	0.661011D-06	0.207347D-05	-0.109538D-05	-0.879992D-06
14	-0.575373D-06	0.105647D-05	0.127843D-05	-0.680810D-06	-0.470715D-06
15	-0.190219D-05	0.128419D-05	0.167714D-06	0.193245D-06	0.840695D-06
16	-0.363094D-06	-0.135399D-07	0.112514D-05	0.491739D-06	0.176442D-05
17	0.211867D-05	-0.980027D-07	-0.210117D-05	0.275883D-06	0.212959D-05
18	0.519158D-06	0.455528D-05	0.315691D-05	0.252053D-05	-0.253887D-05
19	0.377450D-06	-0.216309D-06	-0.113368D-05	-0.264684D-06	0.137067D-06
20	-0.316140D-06	-0.144363D-06	-0.581434D-06	0.609327D-07	0.111075D-06
21	0.194970D-06	0.957168D-06	0.378496D-07	-0.164117D-07	-0.345621D-06
22	-0.820405D-07	-0.690389D-06	0.130108D-05	-0.549650D-06	0.195094D-05

23	-0.105695D-05	-0.345476D-06	-0.379689D-05	-0.161210D-05	-0.960127D-08
24	-0.322183D-06	0.213954D-05	-0.137062D-05	0.127330D-05	-0.687784D-06
25	0.169264D-05	-0.337500D-06	-0.458598D-05	-0.115375D-05	-0.479702D-05
26	-0.117155D-05	-0.181743D-05	0.137332D-05	0.454739D-06	0.361313D-06
27	-0.366938D-05	-0.546629D-05	-0.406505D-05	0.625914D-06	-0.414648D-05
28	-0.108520D-05	0.310582D-06	0.794066D-06	0.477404D-06	-0.435901D-06
29	0.198922D-05	0.501736D-06	0.205976D-05	-0.511461D-06	0.852036D-06
30	-0.129947D-05	0.636171D-06	-0.278587D-05	0.580901D-06	-0.405170D-05
31	0.152877D-05	0.181483D-05	0.796202D-06	-0.342100D-06	0.171144D-05
32	0.678236D-06	0.169586D-06	0.403751D-05	-0.374840D-05	-0.315889D-05
33	-0.737514D-06	-0.280340D-06	0.120023D-05	0.717735D-06	0.380422D-05
34	-0.638042D-05	-0.923949D-05	-0.362582D-04	-0.303406D-05	-0.435924D-05
35	0.335519D-05	0.612237D-05	0.476876D-04	0.223127D-05	0.126270D-04
36	-0.300743D-05	0.353858D-05	0.265273D-04	-0.674983D-07	0.147544D-04
37	-0.963287D-05	0.308843D-05	0.331848D-04	-0.902855D-05	-0.633070D-05
38	-0.420672D-06	-0.340746D-05	0.926320D-06	0.853088D-07	-0.120173D-05
39	-0.256769D-05	0.890618D-05	0.252041D-04	0.107937D-04	-0.224540D-04
40	-0.122227D-05	-0.135429D-04	-0.366269D-04	-0.930982D-05	0.266412D-04
41	0.550015D-05	0.255855D-04	0.406212D-04	0.950907D-05	-0.117603D-04
42	-0.171926D-04	0.570089D-05	0.135217D-04	-0.153236D-04	-0.257683D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.172143D-03				
7	0.240056D-05	0.458619D-02			
8	0.117349D-04	-0.338452D-03	0.191196D-02		
9	-0.477845D-05	-0.346399D-05	0.166616D-03	0.605097D-03	
10	0.667639D-05	0.655793D-04	-0.341281D-03	0.541034D-04	0.236948D-02
11	0.101617D-04	-0.234891D-04	-0.111060D-03	-0.135203D-04	-0.222910D-03
12	0.111028D-04	0.411422D-04	0.158924D-03	-0.628309D-04	0.148185D-03
13	0.203381D-06	0.141488D-05	0.213984D-05	-0.789248D-06	-0.680157D-05
14	-0.148547D-05	0.269970D-05	-0.601389D-06	-0.222738D-05	-0.846942D-05
15	0.104729D-05	-0.290596D-05	0.618672D-05	-0.143905D-05	-0.146711D-05
16	0.142511D-05	-0.866479D-06	0.105748D-04	-0.143381D-05	0.527528D-06
17	0.293553D-05	-0.160357D-05	-0.152656D-04	-0.340398D-05	-0.103203D-04
18	0.410768D-05	0.195194D-04	0.562724D-04	0.244709D-04	-0.351877D-05
19	0.272746D-05	0.111036D-04	0.256660D-07	-0.223735D-06	-0.570255D-05
20	0.311854D-06	-0.235901D-05	-0.416751D-05	0.112919D-05	-0.356130D-05
21	-0.107672D-05	-0.782448D-05	-0.690975D-05	-0.114773D-05	0.148491D-04
22	0.904914D-06	-0.840747D-05	-0.136543D-05	0.160563D-06	-0.644307D-05
23	0.280578D-05	-0.106734D-05	0.955122D-05	-0.279150D-05	-0.104169D-04
24	0.257522D-05	-0.115087D-05	-0.199299D-05	-0.168314D-05	-0.857760D-05



25	0.445514D-05	0.226356D-04	-0.194211D-04	-0.244020D-04	0.215277D-04
26	0.318036D-05	-0.447711D-05	0.150612D-05	-0.187679D-05	-0.175545D-04
27	0.350000D-05	0.213606D-04	-0.187861D-04	0.340014D-05	0.329422D-05
28	-0.389511D-06	-0.592881D-05	0.171812D-05	0.105444D-04	0.170803D-04
29	-0.778833D-06	0.171840D-04	-0.497530D-05	-0.329088D-05	0.839914D-06
30	0.138523D-05	0.293418D-04	0.122801D-04	-0.237258D-05	-0.883117D-06
31	-0.379498D-05	-0.494497D-05	0.271054D-05	0.760494D-06	0.310611D-05
32	-0.346393D-06	-0.122106D-05	-0.853368D-05	-0.141386D-05	0.158323D-04
33	0.842293D-05	0.295482D-04	0.368445D-06	0.892118D-05	0.897106D-05
34	-0.880889D-05	-0.134920D-03	0.487310D-04	-0.297013D-05	0.146387D-03
35	-0.700965D-05	0.429827D-04	-0.159944D-03	-0.519188D-06	-0.111452D-03
36	0.443296D-05	-0.155426D-03	-0.760972D-04	-0.852852D-05	-0.349661D-04
37	-0.272381D-04	-0.276182D-03	-0.175127D-04	0.353821D-04	0.480363D-05
38	-0.423030D-05	0.194895D-04	0.121973D-04	-0.100166D-04	-0.161663D-04
39	-0.163365D-06	-0.129777D-03	-0.544884D-05	-0.871235D-05	0.768810D-05
40	0.141538D-04	0.119192D-03	-0.690637D-04	-0.110983D-04	0.415417D-04
41	-0.128368D-04	-0.997065D-04	0.694637D-04	0.383872D-04	-0.152878D-04
42	-0.260250D-04	0.814466D-03	0.112777D-03	-0.202061D-04	-0.520952D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.704224D-03				
12	0.705727D-04	0.734793D-03			
13	0.445559D-05	0.971049D-06	0.214981D-04		
14	0.186653D-05	0.136341D-05	0.485135D-05	0.138783D-04	
15	-0.303201D-05	0.539176D-05	0.852146D-06	0.596767D-05	0.329717D-04
16	-0.421550D-05	0.772359D-05	-0.438409D-05	-0.441630D-05	-0.104982D-05
17	0.248874D-05	0.261010D-05	-0.145954D-05	-0.322309D-05	-0.827429D-05
18	0.545683D-06	-0.129693D-04	0.141892D-05	0.355578D-05	0.277816D-05
19	0.636355D-05	0.396114D-05	0.891544D-06	0.307591D-05	0.118468D-05
20	0.442335D-05	0.741344D-06	0.582611D-06	0.130366D-05	0.640352D-05
21	-0.408458D-05	0.538800D-05	0.772940D-07	-0.117742D-05	-0.154030D-05
22	-0.392852D-07	-0.328839D-05	-0.152747D-07	0.871177D-06	0.144604D-05
23	0.757521D-05	0.428000D-05	0.444248D-05	0.518556D-05	0.181706D-05
24	0.112033D-04	-0.392786D-05	0.177155D-05	0.357331D-05	0.120585D-04
25	-0.485139D-05	0.228710D-04	-0.885318D-06	-0.257006D-05	-0.182481D-05
26	0.541446D-05	-0.997067D-05	-0.791054D-06	0.471459D-06	0.213094D-05
27	-0.514828D-05	-0.842938D-05	-0.260431D-06	0.101935D-05	0.141642D-05
28	-0.734682D-05	-0.154609D-05	-0.512053D-05	-0.563404D-05	-0.259342D-05
29	-0.209742D-05	-0.726885D-06	-0.138491D-05	-0.339828D-05	-0.106532D-04
30	-0.815410D-06	0.138426D-04	-0.355617D-06	0.166339D-05	0.241435D-05
31	-0.157878D-05	0.202997D-05	-0.572872D-06	-0.615539D-06	-0.110096D-06

32	-0.104618D-04	0.759832D-05	-0.108834D-05	-0.192495D-05	-0.137091D-05
33	-0.671134D-06	0.377898D-05	-0.186732D-07	0.410563D-06	0.157480D-05
34	-0.632551D-04	0.419732D-04	-0.869024D-05	0.252141D-07	0.935587D-05
35	-0.991612D-06	0.225283D-04	0.887585D-05	0.752318D-05	-0.157102D-04
36	-0.106340D-03	-0.637462D-04	0.102937D-04	0.375561D-05	-0.258569D-04
37	-0.758667D-04	0.505575D-04	0.167285D-04	0.582503D-05	-0.137708D-04
38	0.137333D-04	0.291934D-04	0.162297D-05	0.159358D-05	0.308353D-05
39	-0.214823D-04	0.132085D-04	0.385857D-05	-0.120481D-05	-0.127046D-05
40	-0.153993D-05	0.130429D-04	-0.814240D-05	-0.245221D-05	0.729748D-05
41	-0.440952D-05	-0.775354D-05	0.105119D-04	-0.573796D-06	-0.895449D-05
42	-0.104752D-03	0.225999D-04	0.969233D-05	0.962333D-05	-0.527209D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.505687D-04				
17	0.100045D-04	0.615420D-04			
18	-0.149661D-04	-0.320715D-04	0.447054D-03		
19	-0.296265D-05	-0.111141D-05	0.161407D-05	0.111932D-04	
20	-0.132057D-05	-0.249413D-05	-0.108682D-05	0.277664D-05	0.141281D-04
21	0.220242D-05	0.116363D-04	-0.167733D-04	-0.198765D-05	-0.522933D-05
22	-0.797741D-06	-0.172507D-05	0.162304D-05	0.125918D-05	0.574457D-05
23	-0.229587D-05	-0.107870D-05	-0.155241D-05	0.436576D-05	0.207609D-05
24	-0.149775D-05	-0.747246D-05	0.449850D-05	0.150374D-05	0.788637D-05
25	0.123235D-04	0.250382D-04	-0.446319D-04	-0.242699D-06	-0.246007D-05
26	-0.574132D-06	-0.162645D-05	0.250214D-05	0.202481D-05	0.627807D-05
27	-0.154637D-05	-0.272628D-05	-0.122485D-04	0.161053D-05	0.444263D-05
28	0.782146D-05	0.160519D-05	-0.941444D-06	-0.407089D-05	-0.104191D-05
29	0.228949D-05	0.106606D-04	-0.695541D-05	-0.149179D-05	-0.450084D-05
30	-0.447733D-05	-0.206402D-04	0.725644D-04	0.194819D-06	-0.130080D-05
31	0.816404D-06	0.176001D-05	-0.747087D-05	-0.106603D-05	-0.499890D-05
32	-0.107982D-05	0.299067D-05	0.183509D-05	-0.157736D-05	-0.124833D-05
33	-0.634285D-06	-0.167391D-05	-0.320306D-06	0.290038D-05	0.271566D-05
34	-0.142108D-04	0.132226D-04	-0.236254D-04	-0.258262D-05	0.521696D-06
35	0.900196D-05	0.131903D-05	-0.203357D-04	0.401633D-06	-0.295668D-05
36	0.102519D-04	0.387841D-04	-0.545639D-04	-0.449732D-05	0.729731D-05
37	0.980412D-07	0.118527D-04	-0.741471D-04	-0.111789D-04	0.116466D-05
38	0.139823D-05	-0.285598D-05	0.431943D-05	0.102345D-05	0.244045D-05
39	0.375431D-05	-0.250894D-05	-0.475007D-05	-0.453062D-05	0.640963D-05
40	0.203538D-05	-0.672471D-05	-0.434681D-05	0.792705D-06	-0.272192D-05
41	-0.101972D-04	0.631161D-05	0.261875D-04	0.160345D-05	0.401436D-06
42	0.874319D-05	0.136939D-04	-0.342520D-04	-0.336059D-05	0.410990D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.513634D-04				
22	-0.542377D-05	0.215536D-04			
23	-0.400515D-06	0.131709D-05	0.437043D-04		
24	-0.394452D-05	0.284627D-05	0.108568D-04	0.616663D-04	
25	0.179140D-04	-0.120826D-05	-0.675482D-05	-0.273987D-04	0.217469D-03
26	-0.760592D-05	0.788776D-05	0.189775D-05	0.116583D-04	-0.151789D-04
27	-0.872484D-05	0.400062D-05	0.144344D-04	0.425992D-04	-0.512405D-04
28	0.165424D-05	-0.106133D-05	-0.765666D-05	-0.277516D-05	0.281166D-05
29	0.327445D-05	-0.225851D-05	-0.362422D-05	-0.121311D-04	0.631827D-05
30	-0.146361D-04	0.133815D-05	-0.116684D-08	0.325975D-05	-0.433263D-04
31	0.929445D-05	-0.688771D-05	-0.548248D-06	-0.363141D-05	0.705965D-05
32	0.638498D-05	-0.430649D-05	-0.108957D-04	-0.243240D-04	0.435515D-04
33	-0.323136D-05	0.311929D-05	0.285587D-05	-0.523602D-06	-0.103701D-04
34	0.904734D-05	-0.765966D-05	-0.268938D-04	-0.121872D-04	0.512813D-05
35	-0.267731D-05	0.270659D-06	0.195694D-04	0.657776D-05	0.326027D-04
36	-0.170486D-04	0.204719D-04	0.169685D-04	-0.624825D-05	-0.303794D-04
37	0.432142D-05	0.933162D-05	-0.148363D-04	-0.159189D-04	-0.318386D-04
38	0.445818D-06	0.225352D-05	-0.139256D-05	0.677367D-06	0.101157D-05
39	0.142448D-06	-0.343936D-05	0.901273D-05	0.277201D-04	0.817832D-07
40	-0.905781D-05	0.368201D-05	-0.428600D-07	-0.118405D-04	-0.143337D-05
41	0.201479D-04	-0.695975D-05	-0.610820D-05	0.595229D-05	0.287885D-04
42	-0.769680D-05	0.515259D-05	0.625859D-05	0.705783D-05	-0.397401D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.454249D-04				
27	0.373949D-04	0.389058D-03			
28	0.247172D-07	-0.178896D-06	0.388876D-04		
29	-0.137728D-05	-0.101917D-04	0.844751D-05	0.494089D-04	
30	0.299785D-06	0.105489D-04	-0.576238D-05	-0.173671D-04	0.180873D-03
31	-0.789021D-05	-0.783265D-05	0.369556D-06	0.100103D-04	-0.125975D-04
32	-0.153489D-04	-0.672017D-04	0.664787D-05	0.182894D-04	-0.280035D-04
33	-0.136685D-05	0.309394D-05	-0.101841D-04	-0.372453D-04	0.620931D-04
34	-0.382666D-05	-0.342502D-04	0.190061D-04	-0.624183D-06	0.100173D-04
35	-0.116126D-04	0.230184D-04	-0.313610D-05	0.334359D-05	-0.257024D-04
36	-0.607194D-05	0.189153D-04	0.351583D-05	0.964406D-06	-0.831945D-04
37	-0.163995D-05	-0.114175D-04	0.891226D-06	0.959859D-05	-0.563056D-04
38	0.887741D-06	0.809305D-05	-0.257435D-05	-0.137809D-06	0.570429D-05

39	0.481843D-05	0.147230D-06	-0.534289D-07	-0.473176D-05	0.476115D-05
40	-0.148692D-05	-0.187840D-04	0.536712D-05	0.296944D-05	-0.204541D-04
41	-0.310806D-05	0.499999D-04	-0.829038D-05	-0.870881D-06	0.200990D-04
42	-0.128015D-04	-0.974896D-06	-0.893760D-05	-0.486954D-05	-0.258914D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.403404D-04				
32	0.190746D-04	0.174396D-03			
33	-0.287522D-04	-0.649412D-04	0.289356D-03		
34	0.105570D-04	0.155427D-04	0.329575D-04	0.395787D-02	
35	0.162046D-05	-0.207842D-04	-0.836107D-05	-0.226115D-02	0.467671D-02
36	-0.102182D-05	-0.301297D-04	-0.217690D-04	0.582224D-04	0.327464D-04
37	0.883931D-05	-0.110716D-04	-0.432684D-04	0.743705D-04	-0.674570D-04
38	0.118711D-05	0.467311D-05	0.798377D-06	0.899107D-05	-0.246538D-04
39	-0.776570D-05	-0.243485D-04	-0.105567D-04	-0.573708D-05	0.289884D-04
40	0.111508D-04	0.401797D-04	-0.139224D-04	-0.438822D-04	0.737231D-04
41	-0.882952D-05	-0.542655D-04	0.582685D-04	0.118491D-03	-0.579224D-04
42	0.130283D-04	-0.729813D-05	-0.267488D-04	-0.350880D-04	-0.365118D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.904724D-02				
37	0.543376D-02	0.769950D-02			
38	-0.195736D-03	-0.237303D-04	0.145748D-03		
39	0.276678D-03	0.123559D-03	0.678635D-06	0.192085D-02	
40	-0.185277D-03	-0.470774D-04	-0.483784D-05	-0.114534D-02	0.145512D-02
41	0.225171D-03	0.708226D-04	0.104220D-04	0.697443D-03	-0.134992D-02
42	0.545813D-02	0.546318D-02	0.316162D-04	0.165591D-03	-0.883802D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.245688D-02	
42	0.645189D-04	0.574528D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
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1	1.000				
2	0.234	1.000			
3	-0.084	-0.172	1.000		
4	0.088	0.253	-0.116	1.000	
5	0.062	0.176	-0.090	0.228	1.000
6	-0.108	-0.168	0.181	-0.155	-0.169
7	-0.026	-0.007	-0.019	-0.021	-0.043
8	-0.013	-0.019	0.034	0.008	-0.014
9	-0.058	-0.014	0.048	-0.007	0.006
10	0.032	-0.015	-0.015	0.030	-0.034
11	0.051	0.029	0.026	-0.013	0.013
12	0.024	0.019	-0.039	0.027	0.005
13	-0.013	0.019	0.030	-0.034	-0.014
14	-0.023	0.037	0.023	-0.026	-0.009
15	-0.049	0.029	0.002	0.005	0.010
16	-0.008	0.000	0.011	0.010	0.018
17	0.040	-0.002	-0.018	0.005	0.019
18	0.004	0.028	0.010	0.017	-0.009
19	0.017	-0.008	-0.023	-0.011	0.003
20	-0.013	-0.005	-0.010	0.002	0.002
21	0.004	0.018	0.000	0.000	-0.003
22	-0.003	-0.020	0.019	-0.017	0.030
23	-0.024	-0.007	-0.039	-0.035	0.000
24	-0.006	0.036	-0.012	0.023	-0.006
25	0.017	-0.003	-0.021	-0.011	-0.023
26	-0.026	-0.035	0.014	0.010	0.004
27	-0.028	-0.036	-0.014	0.005	-0.015
28	-0.026	0.007	0.009	0.011	-0.005
29	0.042	0.009	0.020	-0.010	0.009
30	-0.014	0.006	-0.014	0.006	-0.022
31	0.036	0.037	0.008	-0.008	0.019
32	0.008	0.002	0.021	-0.040	-0.017
33	-0.006	-0.002	0.005	0.006	0.016
34	-0.015	-0.019	-0.039	-0.007	-0.005
35	0.007	0.012	0.047	0.005	0.013
36	-0.005	0.005	0.019	0.000	0.011
37	-0.016	0.005	0.025	-0.015	-0.005
38	-0.005	-0.037	0.005	0.001	-0.007
39	-0.009	0.027	0.039	0.035	-0.037
40	-0.005	-0.047	-0.065	-0.035	0.050
41	0.017	0.068	0.055	0.027	-0.017
42	-0.034	0.010	0.012	-0.029	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	0.003	1.000			
8	0.020	-0.114	1.000		
9	-0.015	-0.002	0.155	1.000	
10	0.010	0.020	-0.160	0.045	1.000
11	0.029	-0.013	-0.096	-0.021	-0.173
12	0.031	0.022	0.134	-0.094	0.112
13	0.003	0.005	0.011	-0.007	-0.030
14	-0.030	0.011	-0.004	-0.024	-0.047
15	0.014	-0.007	0.025	-0.010	-0.005
16	0.015	-0.002	0.034	-0.008	0.002
17	0.029	-0.003	-0.045	-0.018	-0.027
18	0.015	0.014	0.061	0.047	-0.003
19	0.062	0.049	0.000	-0.003	-0.035
20	0.006	-0.009	-0.025	0.012	-0.019
21	-0.011	-0.016	-0.022	-0.007	0.043
22	0.015	-0.027	-0.007	0.001	-0.029
23	0.032	-0.002	0.033	-0.017	-0.032
24	0.025	-0.002	-0.006	-0.009	-0.022
25	0.023	0.023	-0.030	-0.067	0.030
26	0.036	-0.010	0.005	-0.011	-0.054
27	0.014	0.016	-0.022	0.007	0.003
28	-0.005	-0.014	0.006	0.069	0.056
29	-0.008	0.036	-0.016	-0.019	0.002
30	0.008	0.032	0.021	-0.007	-0.001
31	-0.046	-0.011	0.010	0.005	0.010
32	-0.002	-0.001	-0.015	-0.004	0.025
33	0.038	0.026	0.000	0.021	0.011
34	-0.011	-0.032	0.018	-0.002	0.048
35	-0.008	0.009	-0.053	0.000	-0.033
36	0.004	-0.024	-0.018	-0.004	-0.008
37	-0.024	-0.046	-0.005	0.016	0.001
38	-0.027	0.024	0.023	-0.034	-0.028
39	0.000	-0.044	-0.003	-0.008	0.004
40	0.028	0.046	-0.041	-0.012	0.022
41	-0.020	-0.030	0.032	0.031	-0.006
42	-0.026	0.159	0.034	-0.011	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.098	1.000			
13	0.036	0.008	1.000		
14	0.019	0.014	0.281	1.000	
15	-0.020	0.035	0.032	0.279	1.000
16	-0.022	0.040	-0.133	-0.167	-0.026
17	0.012	0.012	-0.040	-0.110	-0.184
18	0.001	-0.023	0.014	0.045	0.023
19	0.072	0.044	0.057	0.247	0.062
20	0.044	0.007	0.033	0.093	0.297
21	-0.021	0.028	0.002	-0.044	-0.037
22	0.000	-0.026	-0.001	0.050	0.054
23	0.043	0.024	0.145	0.211	0.048
24	0.054	-0.018	0.049	0.122	0.267
25	-0.012	0.057	-0.013	-0.047	-0.022
26	0.030	-0.055	-0.025	0.019	0.055
27	-0.010	-0.016	-0.003	0.014	0.013
28	-0.044	-0.009	-0.177	-0.243	-0.072
29	-0.011	-0.004	-0.042	-0.130	-0.264
30	-0.002	0.038	-0.006	0.033	0.031
31	-0.009	0.012	-0.019	-0.026	-0.003
32	-0.030	0.021	-0.018	-0.039	-0.018
33	-0.001	0.008	0.000	0.006	0.016
34	-0.038	0.025	-0.030	0.000	0.026
35	-0.001	0.012	0.028	0.030	-0.040
36	-0.042	-0.025	0.023	0.011	-0.047
37	-0.033	0.021	0.041	0.018	-0.027
38	0.043	0.089	0.029	0.035	0.044
39	-0.018	0.011	0.019	-0.007	-0.005
40	-0.002	0.013	-0.046	-0.017	0.033
41	-0.003	-0.006	0.046	-0.003	-0.031
42	-0.052	0.011	0.028	0.034	-0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.179	1.000			
18	-0.100	-0.193	1.000		
19	-0.125	-0.042	0.023	1.000	
20	-0.049	-0.085	-0.014	0.221	1.000

21	0.043	0.207	-0.111	-0.083	-0.194
22	-0.024	-0.047	0.017	0.081	0.329
23	-0.049	-0.021	-0.011	0.197	0.084
24	-0.027	-0.121	0.027	0.057	0.267
25	0.118	0.216	-0.143	-0.005	-0.044
26	-0.012	-0.031	0.018	0.090	0.248
27	-0.011	-0.018	-0.029	0.024	0.060
28	0.176	0.033	-0.007	-0.195	-0.044
29	0.046	0.193	-0.047	-0.063	-0.170
30	-0.047	-0.196	0.255	0.004	-0.026
31	0.018	0.035	-0.056	-0.050	-0.209
32	-0.011	0.029	0.007	-0.036	-0.025
33	-0.005	-0.013	-0.001	0.051	0.042
34	-0.032	0.027	-0.018	-0.012	0.002
35	0.019	0.002	-0.014	0.002	-0.012
36	0.015	0.052	-0.027	-0.014	0.020
37	0.000	0.017	-0.040	-0.038	0.004
38	0.016	-0.030	0.017	0.025	0.054
39	0.012	-0.007	-0.005	-0.031	0.039
40	0.008	-0.022	-0.005	0.006	-0.019
41	-0.029	0.016	0.025	0.010	0.002
42	0.016	0.023	-0.021	-0.013	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.163	1.000			
23	-0.008	0.043	1.000		
24	-0.070	0.078	0.209	1.000	
25	0.169	-0.018	-0.069	-0.237	1.000
26	-0.157	0.252	0.043	0.220	-0.153
27	-0.062	0.044	0.111	0.275	-0.176
28	0.037	-0.037	-0.186	-0.057	0.031
29	0.065	-0.069	-0.078	-0.220	0.061
30	-0.152	0.021	0.000	0.031	-0.218
31	0.204	-0.234	-0.013	-0.073	0.075
32	0.067	-0.070	-0.125	-0.235	0.224
33	-0.027	0.039	0.025	-0.004	-0.041
34	0.020	-0.026	-0.065	-0.025	0.006
35	-0.005	0.001	0.043	0.012	0.032
36	-0.025	0.046	0.027	-0.008	-0.022
37	0.007	0.023	-0.026	-0.023	-0.025



38	0.005	0.040	-0.017	0.007	0.006
39	0.000	-0.017	0.031	0.081	0.000
40	-0.033	0.021	0.000	-0.040	-0.003
41	0.057	-0.030	-0.019	0.015	0.039
42	-0.014	0.015	0.012	0.012	-0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.281	1.000			
28	0.001	-0.001	1.000		
29	-0.029	-0.074	0.193	1.000	
30	0.003	0.040	-0.069	-0.184	1.000
31	-0.184	-0.063	0.009	0.224	-0.147
32	-0.172	-0.258	0.081	0.197	-0.158
33	-0.012	0.009	-0.096	-0.311	0.271
34	-0.009	-0.028	0.048	-0.001	0.012
35	-0.025	0.017	-0.007	0.007	-0.028
36	-0.009	0.010	0.006	0.001	-0.065
37	-0.003	-0.007	0.002	0.016	-0.048
38	0.011	0.034	-0.034	-0.002	0.035
39	0.016	0.000	0.000	-0.015	0.008
40	-0.006	-0.025	0.023	0.011	-0.040
41	-0.009	0.051	-0.027	-0.002	0.030
42	-0.025	-0.001	-0.019	-0.009	-0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.227	1.000			
33	-0.266	-0.289	1.000		
34	0.026	0.019	0.031	1.000	
35	0.004	-0.023	-0.007	-0.526	1.000
36	-0.002	-0.024	-0.013	0.010	0.005
37	0.016	-0.010	-0.029	0.013	-0.011
38	0.015	0.029	0.004	0.012	-0.030
39	-0.028	-0.042	-0.014	-0.002	0.010
40	0.046	0.080	-0.021	-0.018	0.028
41	-0.028	-0.083	0.069	0.038	-0.017
42	0.027	-0.007	-0.021	-0.007	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	1.000				
37	0.651	1.000			
38	-0.170	-0.022	1.000		
39	0.066	0.032	0.001	1.000	
40	-0.051	-0.014	-0.011	-0.685	1.000
41	0.048	0.016	0.017	0.321	-0.714
42	0.757	0.821	0.035	0.050	-0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	1.000	
42	0.017	1.000

#### TECHNICAL 8 OUTPUT

#### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.014	34
200	1.004	32
300	1.001	42
400	1.003	3
500	1.005	37
600	1.002	3
700	1.001	27
800	1.002	8
900	1.001	8
1000	1.002	30

This is improvement in physical health

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

# PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	0.971	0.971	0.971	0.971	0.971
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.966
PRESS15	0.966	0.966	0.966	0.966	0.966
DUTIES15	0.966	0.966	0.966	0.966	0.966

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.963			
BULLY15	0.963	0.966		
PRESS15	0.963	0.966	0.966	
DUTIES15	0.963	0.966	0.966	0.966

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	Percentiles 20%/60%	Percentiles 40%/80%	Median
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CLU2		0.316	0.793	0.000	68.42%	0.000	0.000	0.000
	57.000	0.216	-1.372	1.000	31.58%	0.000	1.000	
CLU3		0.439	0.247	0.000	56.14%	0.000	0.000	0.000
	57.000	0.246	-1.939	1.000	43.86%	1.000	1.000	
PHY15		0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
	1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15		0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
	1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15		0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
	1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15		0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
	1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15		0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
	1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15		0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
	1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-22.496 26.467

Posterior Predictive P-Value 0.458

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16 ON

PHY15	0.813	0.115	0.000	0.597	1.055	*
CHOICE15	-0.047	0.032	0.075	-0.111	0.016	
BULLY15	0.049	0.056	0.204	-0.059	0.162	
DUTIES15	0.033	0.038	0.178	-0.036	0.111	
PRESS15	-0.003	0.035	0.463	-0.073	0.066	
KES15	0.167	0.051	0.002	0.062	0.265	*

KES15 WITH

PHY15	0.070	0.008	0.000	0.055	0.087	*
CHOICE15	-0.134	0.024	0.000	-0.182	-0.088	*
BULLY15	0.128	0.015	0.000	0.098	0.158	*
PRESS15	0.206	0.024	0.000	0.158	0.253	*
DUTIES15	-0.206	0.021	0.000	-0.250	-0.166	*

PHY15 WITH

CHOICE15	-0.032	0.012	0.003	-0.056	-0.009	*
BULLY15	0.012	0.007	0.046	-0.002	0.026	
PRESS15	0.016	0.012	0.107	-0.008	0.037	
DUTIES15	-0.009	0.010	0.181	-0.029	0.011	

CHOICE15 WITH

BULLY15	-0.133	0.021	0.000	-0.174	-0.092	*
PRESS15	-0.181	0.033	0.000	-0.253	-0.119	*
DUTIES15	0.161	0.029	0.000	0.107	0.219	*

BULLY15 WITH

PRESS15	0.177	0.020	0.000	0.139	0.218	*
DUTIES15	-0.140	0.019	0.000	-0.178	-0.103	*

PRESS15 WITH

DUTIES15	-0.242	0.030	0.000	-0.306	-0.182	*
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Means

PHY15	0.000	0.010	0.484	-0.020	0.020	
KES15	0.000	0.021	0.488	-0.040	0.041	
CHOICE15	-0.001	0.030	0.487	-0.060	0.059	
BULLY15	0.000	0.019	0.499	-0.035	0.036	
PRESS15	0.002	0.031	0.473	-0.061	0.063	
DUTIES15	-0.002	0.027	0.465	-0.053	0.053	

Variances						
PHY15	0.154	0.006	0.000	0.144	0.167	*
KES15	0.613	0.023	0.000	0.571	0.660	*
CHOICE15	1.251	0.048	0.000	1.162	1.356	*
BULLY15	0.475	0.018	0.000	0.441	0.513	*
PRESS15	1.209	0.045	0.000	1.124	1.299	*
DUTIES15	0.974	0.038	0.000	0.908	1.053	*

#### Between Level

PHYCAT16 ON						
CLU2	-0.128	0.117	0.135	-0.360	0.093	
CLU3	-0.032	0.112	0.393	-0.238	0.194	

CLU2 WITH						
CLU3	-0.137	0.038	0.000	-0.225	-0.078	*

Means						
CLU2	0.317	0.064	0.000	0.188	0.442	*
CLU3	0.435	0.069	0.000	0.297	0.567	*

Thresholds						
PHYCAT16\$1	-0.451	0.096	0.000	-0.640	-0.259	*

Variances						
CLU2	0.232	0.045	0.000	0.164	0.338	*
CLU3	0.264	0.050	0.000	0.186	0.376	*

Residual Variances						
PHYCAT16	0.008	0.011	0.000	0.000	0.039	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.297	0.039	0.000	0.223	0.376	*
CHOICE15	-0.049	0.034	0.075	-0.116	0.017	

BULLY15	0.031	0.036	0.204	-0.038	0.102	
DUTIES15	0.030	0.035	0.178	-0.034	0.103	
PRESS15	-0.003	0.035	0.463	-0.074	0.067	
KES15	0.122	0.037	0.002	0.044	0.192	*
KES15 WITH						
PHY15	0.230	0.025	0.000	0.181	0.280	*
CHOICE15	-0.153	0.027	0.000	-0.205	-0.102	*
BULLY15	0.237	0.026	0.000	0.185	0.286	*
PRESS15	0.240	0.026	0.000	0.187	0.288	*
DUTIES15	-0.266	0.024	0.000	-0.315	-0.217	*
PHY15 WITH						
CHOICE15	-0.073	0.027	0.003	-0.125	-0.021	*
BULLY15	0.045	0.027	0.046	-0.007	0.096	
PRESS15	0.036	0.027	0.107	-0.017	0.087	
DUTIES15	-0.023	0.027	0.181	-0.076	0.029	
CHOICE15 WITH						
BULLY15	-0.172	0.027	0.000	-0.224	-0.119	*
PRESS15	-0.148	0.026	0.000	-0.204	-0.097	*
DUTIES15	0.146	0.025	0.000	0.097	0.196	*
BULLY15 WITH						
PRESS15	0.234	0.025	0.000	0.187	0.282	*
DUTIES15	-0.205	0.026	0.000	-0.257	-0.152	*
PRESS15 WITH						
DUTIES15	-0.223	0.026	0.000	-0.276	-0.172	*
Means						
PHY15	0.001	0.026	0.484	-0.052	0.052	
KES15	0.001	0.027	0.488	-0.051	0.053	
CHOICE15	-0.001	0.027	0.487	-0.054	0.053	
BULLY15	0.000	0.027	0.499	-0.051	0.053	
PRESS15	0.002	0.028	0.473	-0.055	0.057	
DUTIES15	-0.002	0.027	0.465	-0.054	0.053	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	



DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON						
CLU2	-0.536	0.421	0.135	-1.113	0.447	
CLU3	-0.141	0.460	0.393	-0.923	0.815	
CLU2 WITH						
CLU3	-0.560	0.090	0.000	-0.707	-0.365	*
Means						
CLU2	0.658	0.144	0.000	0.375	0.945	*
CLU3	0.852	0.153	0.000	0.548	1.147	*
Thresholds						
PHYCAT16\$1	-3.822	1.701	0.000	-8.351	-1.627	*
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.597	0.265	0.000	0.061	0.981	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.134	0.026	0.000	0.084	0.189

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.403	0.265	0.000	0.019	0.939

#### TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15	0	0
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THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA		
	PRESS15	DUTIES15
	<u>5</u>	<u>6</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	PHYCAT16
	42

NU			
	PHYCAT16	CLU2	CLU3

	<u>0</u>	<u>0</u>	<u>0</u>
LAMBDA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>
CLU2	0	0	0
CLU3	0	0	0
THETA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	<u>0</u>	<u></u>	<u></u>
CLU2	0	0	
CLU3	0	0	0
ALPHA			
	PHYCAT16	CLU2	CLU3
	<u>0</u>	<u>34</u>	<u>35</u>
BETA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	<u>0</u>	<u>36</u>	<u>37</u>
CLU2	0	0	0
CLU3	0	0	0
PSI			
	PHYCAT16	CLU2	CLU3
PHYCAT16	<u>38</u>	<u></u>	<u></u>
CLU2	0	39	
CLU3	0	40	41

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
0.000		0.000	0.000	0.000	0.000

ALPHA		
PRESS15		DUTIES15
0.000		0.000

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15

PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.077			
KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	<u>0.604</u>	<u></u>
DUTIES15	0.000	0.488

STARTING VALUES FOR BETWEEN

TAU	
	PHYCAT16
	<u>-0.311</u>

NU		
PHYCAT16	CLU2	CLU3
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>



LAMBDA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	1.000	0.000	0.000
CLU2	0.000	1.000	0.000
CLU3	0.000	0.000	1.000

THETA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	0.000		
CLU2	0.000	0.000	
CLU3	0.000	0.000	0.000

ALPHA			
	PHYCAT16	CLU2	CLU3
	0.000	0.375	0.482

BETA			
	PHYCAT16	CLU2	CLU3
PHYCAT16	0.000	0.000	0.000
CLU2	0.000	0.000	0.000
CLU3	0.000	0.000	0.000

PSI			
	PHYCAT16	CLU2	CLU3
PHYCAT16	1.000		
CLU2	0.000	0.117	
CLU3	0.000	0.000	0.125

#### PRIORS FOR ALL PARAMETERS

Parameter 1~N(0.000,infinity)  
 Parameter 2~N(0.000,infinity)  
 Parameter 3~N(0.000,infinity)

#### PRIOR MEAN

0.0000  
 0.0000  
 0.0000

#### PRIOR VARIANCE

infinity  
 infinity  
 infinity

#### PRIOR STD. DEV.

infinity  
 infinity  
 infinity

Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.105262D-03				
2	0.522099D-04	0.442628D-03			
3	-0.262419D-04	-0.110192D-03	0.929481D-03		
4	0.322525D-05	0.104716D-03	-0.755626D-04	0.348455D-03	
5	0.635873D-06	0.156523D-03	-0.148962D-03	0.121344D-03	0.967276D-03
6	-0.227550D-04	-0.163706D-03	0.101547D-03	-0.990022D-04	-0.194197D-03
7	-0.473830D-04	-0.106192D-04	0.860037D-04	-0.114620D-03	0.440447D-04
8	0.883148D-05	-0.141897D-04	-0.397684D-04	-0.265663D-04	0.305252D-04
9	0.338668D-06	-0.868866D-05	-0.125421D-04	-0.374014D-05	0.116240D-04
10	0.137523D-04	-0.296978D-04	0.171386D-04	-0.880256D-05	-0.530262D-04
11	-0.826442D-05	-0.242502D-04	0.157286D-04	-0.465916D-05	-0.697701D-05
12	0.472652D-05	-0.147078D-04	0.460416D-04	-0.579648D-05	-0.106324D-04
13	-0.667530D-06	-0.223376D-05	0.696678D-06	-0.102916D-05	-0.391225D-05
14	-0.119208D-06	0.675570D-05	-0.115155D-04	0.536184D-05	-0.837803D-05
15	0.385787D-06	0.752307D-05	-0.386848D-05	-0.169163D-04	-0.620009D-04
16	-0.630384D-06	-0.520426D-05	0.147215D-05	-0.364536D-05	-0.864527D-05
17	-0.166895D-05	0.960727D-05	0.335476D-04	-0.675295D-05	0.119197D-04
18	0.125509D-04	0.304573D-05	0.132964D-04	0.370760D-04	0.489762D-04
19	-0.133879D-05	0.741788D-05	-0.119494D-05	0.889856D-05	0.977515D-05
20	-0.413096D-05	0.927670D-06	-0.215175D-04	0.531646D-06	-0.216484D-04
21	0.222737D-05	0.230024D-07	0.825189D-05	-0.403222D-05	-0.206894D-04
22	-0.117320D-05	-0.235379D-05	0.110312D-05	-0.140579D-05	-0.650264D-05
23	0.368566D-07	0.766144D-05	0.187407D-05	0.371081D-05	0.900057D-05
24	-0.200801D-06	-0.125305D-05	0.153906D-04	-0.647541D-05	-0.439211D-04
25	0.402973D-05	0.221260D-04	0.255007D-04	0.103903D-04	0.319160D-04
26	0.226490D-05	0.196939D-05	-0.218037D-04	0.140120D-04	-0.336102D-04
27	0.239432D-05	-0.139019D-04	0.262102D-04	0.105460D-04	-0.671932D-04
28	-0.828849D-06	0.303366D-05	-0.551657D-05	-0.186707D-05	0.164074D-05
29	-0.251799D-05	-0.624424D-05	-0.111665D-04	0.133501D-04	0.275866D-04
30	-0.407606D-05	-0.144474D-05	-0.107754D-04	0.644528D-05	0.102420D-04
31	0.385096D-05	0.485731D-05	0.638391D-05	0.268388D-05	0.150427D-04
32	0.352522D-05	-0.218272D-05	-0.170428D-04	-0.129129D-04	0.251570D-04
33	0.864598D-05	-0.117286D-04	0.911237D-05	-0.171027D-04	-0.238279D-04
34	-0.147325D-04	-0.782214D-05	0.162146D-04	0.264196D-04	0.327775D-04
35	0.116100D-04	-0.800991D-06	-0.130347D-04	-0.354020D-04	-0.833499D-05
36	-0.382444D-04	-0.306458D-04	0.113670D-04	-0.534542D-05	0.156327D-04
37	-0.271925D-05	0.301085D-05	-0.101750D-03	-0.952608D-04	0.329996D-04
38	-0.348012D-05	-0.359984D-05	0.583665D-05	0.303689D-05	0.769826D-05
39	-0.811066D-05	-0.133140D-04	0.575212D-04	0.182196D-04	-0.494844D-04
40	0.290374D-05	-0.659219D-05	-0.266997D-04	-0.197596D-04	0.687205D-05
41	-0.227541D-04	-0.162512D-05	-0.126322D-06	-0.222750D-05	0.581103D-05

42 -0.103715D-04 -0.777695D-05 -0.225545D-04 -0.434172D-04 -0.233159D-04

# ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.732610D-03				
7	-0.416575D-04	0.131352D-01			
8	0.333638D-04	-0.601810D-03	0.264118D-02		
9	0.584974D-05	0.113485D-03	0.104799D-03	0.104991D-02	
10	0.275440D-04	-0.395860D-04	-0.298240D-03	0.194338D-03	0.311253D-02
11	-0.105327D-04	0.325892D-04	-0.221780D-03	0.936031D-04	-0.292622D-03
12	0.411934D-04	0.127188D-04	0.388605D-03	-0.116288D-03	0.313098D-03
13	0.130688D-05	0.288756D-04	-0.370168D-05	0.450656D-05	-0.497342D-05
14	0.854572D-05	-0.970948D-05	0.909446D-05	-0.332586D-05	-0.263917D-04
15	0.227027D-04	0.862508D-04	0.508199D-04	-0.370093D-04	-0.317446D-04
16	-0.397170D-05	-0.408811D-04	0.671065D-05	0.758014D-06	0.177444D-04
17	0.165907D-04	0.703443D-04	-0.465567D-04	0.833559D-05	0.623819D-04
18	0.860930D-05	-0.107706D-03	0.326083D-04	0.545779D-04	-0.487552D-04
19	-0.104889D-05	0.185832D-04	0.415247D-05	-0.110765D-05	0.639190D-05
20	0.108409D-04	-0.192009D-04	-0.269587D-05	0.754843D-06	0.342125D-04
21	0.135240D-04	0.178030D-04	-0.584506D-04	0.296171D-04	-0.278575D-04
22	0.643929D-05	0.184501D-04	0.292051D-04	-0.129381D-04	-0.314103D-04
23	0.237922D-05	0.198891D-04	0.226259D-04	0.577878D-05	0.976011D-05
24	0.177698D-04	0.286658D-04	0.153561D-04	-0.205340D-04	-0.717849D-05
25	-0.557422D-05	0.108849D-03	0.113543D-04	0.652516D-04	-0.626230D-04
26	-0.423460D-05	-0.617858D-04	0.328575D-04	-0.163965D-04	-0.233205D-04
27	0.275099D-04	-0.533628D-04	0.371963D-04	-0.323979D-04	-0.309568D-04
28	-0.150370D-04	0.250008D-04	-0.159558D-04	-0.542051D-05	-0.132027D-05
29	-0.962862D-05	0.697472D-04	-0.281458D-04	0.164996D-04	-0.298103D-04
30	0.158223D-04	-0.111784D-03	0.104109D-03	0.262871D-05	0.443154D-04
31	-0.144690D-04	0.772394D-04	-0.202786D-04	0.617595D-05	-0.216926D-04
32	-0.112092D-04	0.179038D-03	-0.250388D-04	0.312937D-04	-0.303517D-04
33	0.112155D-04	0.276182D-04	0.517607D-04	-0.101719D-04	0.181919D-04
34	0.326140D-04	-0.115772D-03	-0.224997D-04	-0.436560D-04	0.137634D-05
35	0.125378D-04	-0.140707D-04	-0.380870D-04	-0.244202D-04	0.127416D-03
36	-0.373112D-04	-0.706321D-03	0.232243D-03	0.137215D-03	0.520451D-04
37	0.301894D-04	-0.107102D-03	0.828094D-04	0.132892D-03	0.281374D-04
38	0.357938D-05	0.289684D-04	-0.790695D-06	-0.143817D-04	-0.873297D-06
39	0.279077D-04	0.152743D-03	-0.690305D-06	-0.337519D-05	-0.185418D-04
40	-0.115845D-04	-0.275550D-04	-0.997092D-05	0.153833D-04	-0.520365D-04
41	0.234466D-04	0.107975D-03	-0.327709D-04	-0.160956D-04	0.110195D-03
42	-0.643628D-06	-0.120470D-02	0.937982D-04	0.210510D-03	-0.801495D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.120007D-02				
12	0.199191D-03	0.144320D-02			
13	0.967296D-05	0.479133D-05	0.334098D-04		
14	0.238085D-05	-0.487018D-05	0.127730D-04	0.699864D-04	
15	0.129664D-04	0.113038D-04	0.233631D-05	0.637586D-04	0.513344D-03
16	-0.693712D-05	0.148725D-04	-0.738005D-05	-0.171912D-04	-0.242837D-04
17	-0.188319D-04	0.221222D-04	0.162191D-05	-0.161146D-04	-0.104965D-03
18	0.299912D-04	0.175785D-04	-0.133682D-05	-0.131544D-05	0.185195D-04
19	-0.599504D-05	-0.744187D-05	0.291034D-05	0.157631D-04	0.221027D-04
20	0.251703D-04	-0.284388D-05	0.508043D-06	0.752150D-05	0.103457D-03
21	0.189246D-04	-0.465523D-04	0.337874D-05	-0.258457D-05	-0.257098D-04
22	0.145121D-04	0.212089D-04	-0.455866D-08	0.741619D-06	0.267868D-04
23	-0.202310D-04	-0.670458D-05	0.267143D-05	0.214806D-04	0.283768D-04
24	0.664984D-05	-0.220640D-04	0.136601D-05	0.141315D-04	0.175213D-03
25	-0.105950D-04	0.150718D-04	0.266874D-05	0.180930D-05	-0.392724D-04
26	0.883777D-05	-0.508897D-05	0.403797D-05	-0.403811D-06	0.341716D-04
27	0.392927D-04	0.280575D-04	0.110914D-04	-0.179285D-05	0.258423D-05
28	0.149130D-04	0.913933D-05	0.121453D-05	-0.251590D-04	-0.206300D-04
29	-0.180296D-04	0.536992D-05	0.330982D-05	-0.138419D-04	-0.167877D-03
30	-0.536362D-04	0.139934D-04	-0.278197D-05	0.614801D-05	0.424993D-04
31	-0.561393D-05	-0.157006D-04	-0.487125D-06	0.783586D-05	-0.219792D-04
32	0.230333D-04	-0.132701D-04	-0.629055D-05	-0.412592D-05	-0.508391D-04
33	-0.247600D-04	0.252237D-04	0.254428D-05	-0.179706D-05	0.172148D-04
34	-0.339577D-04	-0.302631D-05	-0.896517D-05	-0.130133D-04	-0.117426D-04
35	-0.174033D-04	0.919791D-04	0.331713D-05	-0.109309D-04	-0.147262D-04
36	-0.135080D-03	0.590875D-05	0.737915D-06	0.393619D-06	-0.130353D-03
37	-0.264264D-03	0.884354D-04	0.470838D-05	-0.167648D-04	-0.137657D-03
38	0.153589D-04	0.156208D-04	-0.109148D-05	-0.112305D-05	-0.762715D-05
39	0.354721D-06	-0.113861D-04	0.476982D-05	-0.886923D-05	0.455608D-04
40	0.422895D-05	0.461113D-04	-0.101338D-05	0.658260D-05	-0.304989D-04
41	0.259212D-04	-0.670791D-04	-0.426031D-06	-0.496838D-05	0.103079D-04
42	-0.157349D-03	0.181059D-04	-0.250326D-05	-0.564762D-06	-0.942640D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.141546D-03				
17	0.782531D-04	0.576807D-03			
18	-0.662612D-04	-0.227266D-03	0.233904D-02		

19	-0.161769D-04	-0.115753D-04	0.905695D-05	0.542308D-04	
20	-0.163592D-04	-0.733395D-04	0.142766D-04	0.276678D-04	0.226623D-03
21	0.155231D-04	0.125424D-03	-0.193905D-03	-0.123377D-04	-0.619677D-04
22	-0.328587D-05	-0.296149D-04	-0.374699D-05	0.782425D-05	0.902621D-04
23	-0.166842D-04	-0.843030D-05	0.540976D-05	0.199138D-04	0.844172D-05
24	-0.580184D-06	-0.104475D-03	0.292537D-05	0.556211D-05	0.989620D-04
25	0.261122D-04	0.206565D-03	-0.346644D-03	0.627955D-05	-0.646066D-04
26	0.534902D-05	-0.312907D-04	-0.144789D-04	0.107005D-05	0.931959D-04
27	-0.161632D-04	-0.519570D-04	0.397874D-04	0.193734D-05	0.669769D-04
28	0.145867D-04	0.139803D-04	0.138956D-04	-0.172224D-04	-0.123211D-04
29	0.154126D-04	0.922912D-04	0.477028D-05	-0.111185D-04	-0.841011D-04
30	-0.135083D-04	-0.170872D-03	0.262874D-03	0.866959D-05	0.392426D-04
31	0.101218D-04	0.398435D-04	-0.882048D-05	-0.432072D-05	-0.925204D-04
32	0.250584D-05	0.653101D-04	-0.563045D-04	0.789109D-05	-0.407126D-04
33	-0.130643D-04	-0.872268D-04	0.751266D-04	0.234806D-05	0.311233D-04
34	-0.237344D-04	0.178461D-04	0.828291D-04	0.102473D-04	-0.113776D-04
35	0.466308D-04	-0.162373D-04	-0.111989D-03	0.568362D-05	0.143684D-04
36	-0.465245D-05	-0.612658D-04	0.254975D-03	-0.192414D-04	-0.215994D-04
37	0.505146D-05	-0.480326D-04	0.215668D-03	-0.199700D-04	0.122847D-04
38	0.618158D-06	0.260227D-05	0.129748D-04	-0.464292D-06	-0.967182D-06
39	-0.361021D-05	0.125318D-04	-0.883618D-04	-0.158869D-04	-0.260618D-05
40	0.109284D-05	-0.104016D-04	0.788431D-04	0.167096D-04	0.567483D-05
41	-0.105937D-05	0.416842D-04	-0.139881D-03	-0.253515D-05	-0.999231D-05
42	0.365565D-05	-0.556599D-04	0.176514D-03	-0.278726D-04	-0.403227D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.456523D-03				
22	-0.105292D-03	0.326154D-03			
23	0.109324D-05	0.167885D-05	0.132919D-03		
24	-0.289039D-04	0.333685D-04	0.555626D-04	0.586208D-03	
25	0.175293D-03	-0.354710D-04	-0.292478D-04	-0.124285D-03	0.108530D-02
26	-0.728277D-04	0.124673D-03	0.558426D-05	0.126734D-03	-0.126802D-03
27	-0.585220D-04	0.272959D-04	0.241503D-04	0.351976D-03	-0.280893D-03
28	-0.266629D-05	-0.862837D-05	-0.255695D-04	-0.115745D-04	-0.216264D-05
29	0.288361D-04	-0.319028D-04	-0.112125D-04	-0.142992D-03	0.502475D-04
30	-0.132951D-03	0.425921D-04	0.826911D-05	0.553672D-04	-0.245986D-03
31	0.914036D-04	-0.100629D-03	-0.130577D-05	-0.558501D-04	0.754557D-04
32	0.201080D-04	-0.388019D-04	-0.127838D-04	-0.195939D-03	0.196348D-03
33	-0.428002D-04	0.485785D-04	-0.509376D-06	0.463466D-04	-0.521639D-04
34	0.259470D-04	-0.391854D-05	-0.536588D-06	-0.139991D-04	-0.326988D-04
35	-0.169700D-04	0.280870D-04	-0.175560D-06	0.397501D-05	0.585080D-04

36	-0.641270D-04	0.198649D-04	-0.259264D-04	-0.157051D-03	-0.204652D-04
37	-0.149579D-04	-0.277332D-04	-0.202721D-04	-0.837269D-04	-0.273885D-04
38	0.228070D-05	-0.176800D-05	0.216808D-05	-0.101603D-04	0.106443D-04
39	0.315767D-04	0.170188D-04	0.229160D-04	0.264110D-04	0.558869D-04
40	-0.307242D-05	-0.373294D-05	-0.196256D-04	-0.130527D-04	-0.246651D-04
41	0.129541D-04	0.128897D-05	0.130237D-04	-0.469624D-05	0.288154D-04
42	-0.566860D-04	0.552613D-05	-0.248855D-04	-0.585751D-04	-0.338371D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.418034D-03				
27	0.288601D-03	0.203282D-02			
28	-0.112653D-04	0.400952D-05	0.110115D-03		
29	-0.381555D-04	-0.786376D-04	0.554706D-04	0.448356D-03	
30	0.411276D-04	0.131701D-04	-0.328641D-04	-0.117504D-03	0.848391D-03
31	-0.952302D-04	-0.566817D-04	0.583598D-05	0.107277D-03	-0.122335D-03
32	-0.137263D-03	-0.367233D-03	0.113036D-04	0.179865D-03	-0.192958D-03
33	0.464803D-04	0.835150D-04	-0.199160D-04	-0.305554D-03	0.253325D-03
34	0.194053D-04	0.683297D-04	0.152880D-04	0.576830D-04	-0.820378D-04
35	-0.825007D-06	-0.794450D-04	-0.257463D-04	-0.355240D-04	0.598554D-04
36	0.128914D-04	-0.214455D-03	0.212137D-04	0.115086D-03	0.264782D-04
37	0.201118D-05	-0.254526D-03	0.130683D-05	0.972030D-04	0.627520D-04
38	-0.143618D-04	-0.140415D-04	-0.225480D-05	0.460860D-05	-0.117291D-04
39	0.311069D-04	-0.635273D-04	-0.222031D-04	-0.893470D-06	-0.538331D-04
40	-0.205049D-04	0.546583D-04	0.590527D-05	-0.111369D-04	0.454946D-04
41	0.478959D-05	0.840974D-05	-0.442249D-05	0.708294D-05	-0.487707D-04
42	0.574060D-05	-0.145426D-03	0.155732D-04	0.461919D-04	0.607025D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.365390D-03				
32	0.162409D-03	0.917620D-03			
33	-0.191993D-03	-0.354666D-03	0.145035D-02		
34	0.242642D-05	0.480017D-04	-0.148708D-03	0.407087D-02	
35	-0.157937D-04	-0.640317D-04	0.214188D-04	-0.234014D-02	0.479336D-02
36	-0.387683D-04	-0.146826D-06	-0.921447D-04	0.149312D-03	-0.189911D-03
37	-0.535372D-04	-0.153994D-03	-0.102357D-03	0.183770D-03	-0.127142D-03
38	0.652295D-05	0.123827D-04	-0.416541D-05	-0.155990D-04	0.338645D-04
39	-0.233512D-04	-0.160226D-05	0.327527D-04	0.757971D-05	0.348131D-04
40	0.915615D-05	0.269809D-04	-0.155887D-04	-0.402497D-04	0.334928D-04

41	-0.170862D-04	0.128027D-04	0.584113D-04	-0.138550D-05	0.634848D-05
42	-0.588780D-04	-0.825874D-04	-0.442122D-04	0.128807D-03	-0.897964D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.136548D-01				
37	0.885535D-02	0.125403D-01			
38	-0.489292D-04	0.456647D-04	0.113248D-03		
39	0.215782D-03	0.232124D-05	-0.270945D-05	0.198931D-02	
40	-0.158874D-03	-0.258958D-04	-0.511132D-05	-0.115270D-02	0.144324D-02
41	0.252664D-03	0.141571D-03	0.663934D-05	0.635372D-03	-0.128713D-02
42	0.900914D-02	0.910591D-02	-0.122099D-04	0.181665D-04	-0.905200D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.250501D-02	
42	0.282926D-04	0.920400D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.242	1.000			
3	-0.084	-0.172	1.000		
4	0.017	0.267	-0.133	1.000	
5	0.002	0.239	-0.157	0.209	1.000
6	-0.082	-0.287	0.123	-0.196	-0.231
7	-0.040	-0.004	0.025	-0.054	0.012
8	0.017	-0.013	-0.025	-0.028	0.019
9	0.001	-0.013	-0.013	-0.006	0.012
10	0.024	-0.025	0.010	-0.008	-0.031
11	-0.023	-0.033	0.015	-0.007	-0.006
12	0.012	-0.018	0.040	-0.008	-0.009
13	-0.011	-0.018	0.004	-0.010	-0.022
14	-0.001	0.038	-0.045	0.034	-0.032
15	0.002	0.016	-0.006	-0.040	-0.088
16	-0.005	-0.021	0.004	-0.016	-0.023
17	-0.007	0.019	0.046	-0.015	0.016
18	0.025	0.003	0.009	0.041	0.033



19	-0.018	0.048	-0.005	0.065	0.043
20	-0.027	0.003	-0.047	0.002	-0.046
21	0.010	0.000	0.013	-0.010	-0.031
22	-0.006	-0.006	0.002	-0.004	-0.012
23	0.000	0.032	0.005	0.017	0.025
24	-0.001	-0.002	0.021	-0.014	-0.058
25	0.012	0.032	0.025	0.017	0.031
26	0.011	0.005	-0.035	0.037	-0.053
27	0.005	-0.015	0.019	0.013	-0.048
28	-0.008	0.014	-0.017	-0.010	0.005
29	-0.012	-0.014	-0.017	0.034	0.042
30	-0.014	-0.002	-0.012	0.012	0.011
31	0.020	0.012	0.011	0.008	0.025
32	0.011	-0.003	-0.018	-0.023	0.027
33	0.022	-0.015	0.008	-0.024	-0.020
34	-0.023	-0.006	0.008	0.022	0.017
35	0.016	-0.001	-0.006	-0.027	-0.004
36	-0.032	-0.012	0.003	-0.002	0.004
37	-0.002	0.001	-0.030	-0.046	0.009
38	-0.032	-0.016	0.018	0.015	0.023
39	-0.018	-0.014	0.042	0.022	-0.036
40	0.007	-0.008	-0.023	-0.028	0.006
41	-0.044	-0.002	0.000	-0.002	0.004
42	-0.011	-0.004	-0.008	-0.024	-0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.013	1.000			
8	0.024	-0.102	1.000		
9	0.007	0.031	0.063	1.000	
10	0.018	-0.006	-0.104	0.108	1.000
11	-0.011	0.008	-0.125	0.083	-0.151
12	0.040	0.003	0.199	-0.094	0.148
13	0.008	0.044	-0.012	0.024	-0.015
14	0.038	-0.010	0.021	-0.012	-0.057
15	0.037	0.033	0.044	-0.050	-0.025
16	-0.012	-0.030	0.011	0.002	0.027
17	0.026	0.026	-0.038	0.011	0.047
18	0.007	-0.019	0.013	0.035	-0.018
19	-0.005	0.022	0.011	-0.005	0.016
20	0.027	-0.011	-0.003	0.002	0.041

21	0.023	0.007	-0.053	0.043	-0.023
22	0.013	0.009	0.031	-0.022	-0.031
23	0.008	0.015	0.038	0.015	0.015
24	0.027	0.010	0.012	-0.026	-0.005
25	-0.006	0.029	0.007	0.061	-0.034
26	-0.008	-0.026	0.031	-0.025	-0.020
27	0.023	-0.010	0.016	-0.022	-0.012
28	-0.053	0.021	-0.030	-0.016	-0.002
29	-0.017	0.029	-0.026	0.024	-0.025
30	0.020	-0.033	0.070	0.003	0.027
31	-0.028	0.035	-0.021	0.010	-0.020
32	-0.014	0.052	-0.016	0.032	-0.018
33	0.011	0.006	0.026	-0.008	0.009
34	0.019	-0.016	-0.007	-0.021	0.000
35	0.007	-0.002	-0.011	-0.011	0.033
36	-0.012	-0.053	0.039	0.036	0.008
37	0.010	-0.008	0.014	0.037	0.005
38	0.012	0.024	-0.001	-0.042	-0.001
39	0.023	0.030	0.000	-0.002	-0.007
40	-0.011	-0.006	-0.005	0.012	-0.025
41	0.017	0.019	-0.013	-0.010	0.039
42	0.000	-0.110	0.019	0.068	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.151	1.000			
13	0.048	0.022	1.000		
14	0.008	-0.015	0.264	1.000	
15	0.017	0.013	0.018	0.336	1.000
16	-0.017	0.033	-0.107	-0.173	-0.090
17	-0.023	0.024	0.012	-0.080	-0.193
18	0.018	0.010	-0.005	-0.003	0.017
19	-0.023	-0.027	0.068	0.256	0.132
20	0.048	-0.005	0.006	0.060	0.303
21	0.026	-0.057	0.027	-0.014	-0.053
22	0.023	0.031	0.000	0.005	0.065
23	-0.051	-0.015	0.040	0.223	0.109
24	0.008	-0.024	0.010	0.070	0.319
25	-0.009	0.012	0.014	0.007	-0.053
26	0.012	-0.007	0.034	-0.002	0.074
27	0.025	0.016	0.043	-0.005	0.003

28	0.041	0.023	0.020	-0.287	-0.087
29	-0.025	0.007	0.027	-0.078	-0.350
30	-0.053	0.013	-0.017	0.025	0.064
31	-0.008	-0.022	-0.004	0.049	-0.051
32	0.022	-0.012	-0.036	-0.016	-0.074
33	-0.019	0.017	0.012	-0.006	0.020
34	-0.015	-0.001	-0.024	-0.024	-0.008
35	-0.007	0.035	0.008	-0.019	-0.009
36	-0.033	0.001	0.001	0.000	-0.049
37	-0.068	0.021	0.007	-0.018	-0.054
38	0.042	0.039	-0.018	-0.013	-0.032
39	0.000	-0.007	0.019	-0.024	0.045
40	0.003	0.032	-0.005	0.021	-0.035
41	0.015	-0.035	-0.001	-0.012	0.009
42	-0.047	0.005	-0.005	-0.001	-0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	1.000				
17	0.274	1.000			
18	-0.115	-0.196	1.000		
19	-0.185	-0.065	0.025	1.000	
20	-0.091	-0.203	0.020	0.250	1.000
21	0.061	0.244	-0.188	-0.078	-0.193
22	-0.015	-0.068	-0.004	0.059	0.332
23	-0.122	-0.030	0.010	0.235	0.049
24	-0.002	-0.180	0.002	0.031	0.272
25	0.067	0.261	-0.218	0.026	-0.130
26	0.022	-0.064	-0.015	0.007	0.303
27	-0.030	-0.048	0.018	0.006	0.099
28	0.117	0.055	0.027	-0.223	-0.078
29	0.061	0.181	0.005	-0.071	-0.264
30	-0.039	-0.244	0.187	0.040	0.089
31	0.045	0.087	-0.010	-0.031	-0.322
32	0.007	0.090	-0.038	0.035	-0.089
33	-0.029	-0.095	0.041	0.008	0.054
34	-0.031	0.012	0.027	0.022	-0.012
35	0.057	-0.010	-0.033	0.011	0.014
36	-0.003	-0.022	0.045	-0.022	-0.012
37	0.004	-0.018	0.040	-0.024	0.007
38	0.005	0.010	0.025	-0.006	-0.006
39	-0.007	0.012	-0.041	-0.048	-0.004

40	0.002	-0.011	0.043	0.060	0.010
41	-0.002	0.035	-0.058	-0.007	-0.013
42	0.003	-0.024	0.038	-0.039	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.273	1.000			
23	0.004	0.008	1.000		
24	-0.056	0.076	0.199	1.000	
25	0.249	-0.060	-0.077	-0.156	1.000
26	-0.167	0.338	0.024	0.256	-0.188
27	-0.061	0.034	0.046	0.322	-0.189
28	-0.012	-0.046	-0.211	-0.046	-0.006
29	0.064	-0.083	-0.046	-0.279	0.072
30	-0.214	0.081	0.025	0.079	-0.256
31	0.224	-0.291	-0.006	-0.121	0.120
32	0.031	-0.071	-0.037	-0.267	0.197
33	-0.053	0.071	-0.001	0.050	-0.042
34	0.019	-0.003	-0.001	-0.009	-0.016
35	-0.011	0.022	0.000	0.002	0.026
36	-0.026	0.009	-0.019	-0.056	-0.005
37	-0.006	-0.014	-0.016	-0.031	-0.007
38	0.010	-0.009	0.018	-0.039	0.030
39	0.033	0.021	0.045	0.024	0.038
40	-0.004	-0.005	-0.045	-0.014	-0.020
41	0.012	0.001	0.023	-0.004	0.017
42	-0.028	0.003	-0.022	-0.025	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.313	1.000			
28	-0.053	0.008	1.000		
29	-0.088	-0.082	0.250	1.000	
30	0.069	0.010	-0.108	-0.191	1.000
31	-0.244	-0.066	0.029	0.265	-0.220
32	-0.222	-0.269	0.036	0.280	-0.219
33	0.060	0.049	-0.050	-0.379	0.228
34	0.015	0.024	0.023	0.043	-0.044

35	-0.001	-0.025	-0.035	-0.024	0.030
36	0.005	-0.041	0.017	0.047	0.008
37	0.001	-0.050	0.001	0.041	0.019
38	-0.066	-0.029	-0.020	0.020	-0.038
39	0.034	-0.032	-0.047	-0.001	-0.041
40	-0.026	0.032	0.015	-0.014	0.041
41	0.005	0.004	-0.008	0.007	-0.033
42	0.003	-0.034	0.015	0.023	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.280	1.000			
33	-0.264	-0.307	1.000		
34	0.002	0.025	-0.061	1.000	
35	-0.012	-0.031	0.008	-0.530	1.000
36	-0.017	0.000	-0.021	0.020	-0.023
37	-0.025	-0.045	-0.024	0.026	-0.016
38	0.032	0.038	-0.010	-0.023	0.046
39	-0.027	-0.001	0.019	0.003	0.011
40	0.013	0.023	-0.011	-0.017	0.013
41	-0.018	0.008	0.031	0.000	0.002
42	-0.032	-0.028	-0.012	0.021	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.677	1.000			
38	-0.039	0.038	1.000		
39	0.041	0.000	-0.006	1.000	
40	-0.036	-0.006	-0.013	-0.680	1.000
41	0.043	0.025	0.012	0.285	-0.677
42	0.804	0.848	-0.012	0.004	0.000

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.006	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.022	32
200	1.012	36
300	1.007	36
400	1.006	28
500	1.008	42
600	1.006	37
700	1.003	42
800	1.001	27
900	1.002	42
1000	1.002	38

This is worsening of psychological distress

#### SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	5855

Number of dependent variables	2
Number of independent variables	8
Number of continuous latent variables	0

#### Observed dependent variables

Continuous  
PRAFACSQ

Binary and ordered categorical (ordinal)  
KESCAT16

#### Observed independent variables

PHY15	KES15	CLU2	CLU3	CHOICE15	BULLY15
PRESS15	DUTIES15				

#### Variables with special functions

Cluster variable      CID15

Within variables  
PHY15      KES15      CHOICE15      BULLY15      PRESS15      DUTIES15

Between variables  
CLU2      CLU3

Centering (GRANDMEAN)  
PHY15      KES15      CHOICE15      BULLY15      PRESS15      DUTIES15

Estimator	BAYES
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#### Specifications for Bayesian Estimation

Point estimate	MEDIAN
Number of Markov chain Monte Carlo (MCMC) chains	3
Random seed for the first chain	0
Starting value information	UNPERTURBED
Algorithm used for Markov chain Monte Carlo	GIBBS (PX1)

Convergence criterion	0.100D-01
Maximum number of iterations	50000
K-th iteration used for thinning	20
Link	PROBIT

Input data file(s)  
multicomponent for mplus cat.dat  
Input data format FREE

# SUMMARY OF DATA

Number of clusters	58
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Size (s)	Cluster ID with Size s
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7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154



75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122
186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.950	0.950	0.950	0.950	
KES15	0.919	0.919	0.919	0.919	0.919
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.913
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913
PRAFACSQ	1.000	1.000	1.000	0.950	0.919

Covariance Coverage

	CHOICE15	BULLY15	PRESS15	DUTIES15	PRAFACSQ
CHOICE15	0.913				
BULLY15	0.912	0.913			
PRESS15	0.913	0.912	0.913		
DUTIES15	0.913	0.913	0.913	0.913	
PRAFACSQ	0.913	0.913	0.913	0.913	1.000

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.877	5135.000
Category 2	0.123	720.000

#### UNIVARIATE SAMPLE STATISTICS

##### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15	0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15	0.000	-0.400	-2.221	7.67%	-1.221	-0.221	-0.221
5345.000	1.097	-0.356	1.779	8.62%	0.779	0.779	
BULLY15	0.000	3.522	-0.153	88.29%	-0.153	-0.153	-0.153
5344.000	0.216	14.164	3.847	0.09%	-0.153	-0.153	
PRESS15	0.000	0.267	-1.445	19.70%	-0.445	-0.445	-0.445
5345.000	1.001	-0.357	2.555	2.75%	0.555	0.555	
DUTIES15	0.000	-1.296	-3.149	2.34%	-0.149	-0.149	-0.149
5347.000	0.828	1.939	0.851	39.74%	-0.149	0.851	
PRAFACSQ	1.011	2.017	0.002	0.56%	0.213	0.337	0.469
5855.000	1.509	3.818	5.467	1.09%	0.932	1.597	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

MODEL FIT INFORMATION

Number of Free Parameters 45

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

27.954 628.825

Posterior Predictive P-Value 0.000

MODEL RESULTS

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
	PHY15	0.136	0.033	0.000	0.072	0.198	*
	CHOICE15	-0.058	0.024	0.007	-0.106	-0.011	*
	BULLY15	0.108	0.048	0.015	0.013	0.200	*
	DUTIES15	-0.082	0.027	0.003	-0.133	-0.028	*
	PRESS15	-0.034	0.026	0.106	-0.083	0.017	
	KES15	1.616	0.084	0.000	1.457	1.780	*
KES15	WITH						
	PHY15	0.054	0.003	0.000	0.048	0.061	*
	CHOICE15	-0.037	0.004	0.000	-0.045	-0.028	*
	BULLY15	0.022	0.002	0.000	0.018	0.026	*
	PRESS15	0.053	0.004	0.000	0.045	0.061	*
	DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*

PHY15	WITH					
CHOICE15		-0.092	0.011	0.000	-0.114	-0.071 *
BULLY15		0.024	0.005	0.000	0.016	0.033 *
PRESS15		0.063	0.010	0.000	0.043	0.084 *
DUTIES15		-0.056	0.009	0.000	-0.074	-0.039 *
CHOICE15	WITH					
BULLY15		-0.052	0.007	0.000	-0.065	-0.038 *
PRESS15		-0.078	0.014	0.000	-0.106	-0.049 *
DUTIES15		0.159	0.013	0.000	0.133	0.184 *
BULLY15	WITH					
PRESS15		0.090	0.006	0.000	0.078	0.103 *
DUTIES15		-0.059	0.006	0.000	-0.070	-0.047 *
PRESS15	WITH					
DUTIES15		-0.156	0.012	0.000	-0.180	-0.132 *
Means						
PHY15		0.002	0.010	0.422	-0.017	0.021
KES15		0.003	0.004	0.221	-0.005	0.011
CHOICE15		-0.003	0.014	0.416	-0.032	0.025
BULLY15		0.001	0.006	0.427	-0.011	0.013
PRESS15		0.002	0.014	0.444	-0.025	0.030
DUTIES15		-0.003	0.012	0.405	-0.028	0.020
Variances						
PHY15		0.536	0.010	0.000	0.517	0.556 *
KES15		0.096	0.002	0.000	0.092	0.100 *
CHOICE15		1.099	0.021	0.000	1.057	1.141 *
BULLY15		0.216	0.004	0.000	0.208	0.224 *
PRESS15		1.002	0.019	0.000	0.966	1.039 *
DUTIES15		0.829	0.016	0.000	0.799	0.862 *
PRAFACSQ		0.000	0.000	0.000	0.000	0.000 *
Between Level						
KESCAT16	ON					
CLU2		0.036	0.091	0.344	-0.127	0.241
CLU3		0.040	0.086	0.311	-0.115	0.219
CLU2	WITH					
CLU3		-0.138	0.038	0.000	-0.224	-0.077 *

Means						
CLU2	0.310	0.063	0.000	0.194	0.436	*
CLU3	0.447	0.070	0.000	0.313	0.589	*
PRAFACSQ	1.384	0.211	0.000	0.962	1.826	*
Thresholds						
KESCAT16\$1	1.389	0.076	0.000	1.254	1.549	*
Variances						
CLU2	0.231	0.044	0.000	0.163	0.337	*
CLU3	0.266	0.051	0.000	0.187	0.378	*
PRAFACSQ	2.504	0.510	0.000	1.760	3.740	*
Residual Variances						
KESCAT16	0.010	0.008	0.000	0.001	0.033	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
PHY15		0.086	0.021	0.000	0.045	0.126	*
CHOICE15		-0.053	0.022	0.007	-0.096	-0.010	*
BULLY15		0.044	0.019	0.015	0.005	0.080	*
DUTIES15		-0.065	0.022	0.003	-0.105	-0.022	*
PRESS15		-0.029	0.023	0.106	-0.072	0.015	
KES15		0.435	0.019	0.000	0.398	0.472	*
KES15	WITH						
PHY15		0.240	0.013	0.000	0.215	0.267	*
CHOICE15		-0.113	0.013	0.000	-0.139	-0.087	*
BULLY15		0.154	0.013	0.000	0.127	0.181	*
PRESS15		0.171	0.013	0.000	0.145	0.197	*
DUTIES15		-0.180	0.013	0.000	-0.205	-0.155	*
PHY15	WITH						
CHOICE15		-0.120	0.014	0.000	-0.148	-0.094	*

BULLY15	0.072	0.013	0.000	0.047	0.098	*
PRESS15	0.086	0.014	0.000	0.059	0.115	*
DUTIES15	-0.084	0.013	0.000	-0.111	-0.059	*
CHOICE15 WITH						
BULLY15	-0.106	0.013	0.000	-0.133	-0.080	*
PRESS15	-0.074	0.014	0.000	-0.099	-0.047	*
DUTIES15	0.167	0.013	0.000	0.140	0.192	*
BULLY15 WITH						
PRESS15	0.194	0.013	0.000	0.170	0.221	*
DUTIES15	-0.139	0.014	0.000	-0.165	-0.112	*
PRESS15 WITH						
DUTIES15	-0.171	0.013	0.000	-0.196	-0.146	*
Means						
PHY15	0.003	0.013	0.422	-0.024	0.028	
KES15	0.010	0.013	0.221	-0.015	0.035	
CHOICE15	-0.003	0.014	0.416	-0.030	0.024	
BULLY15	0.003	0.013	0.427	-0.023	0.028	
PRESS15	0.002	0.014	0.444	-0.025	0.030	
DUTIES15	-0.003	0.013	0.405	-0.030	0.022	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Between Level						
KESCAT16 ON						
CLU2	0.168	0.384	0.344	-0.649	0.831	
CLU3	0.206	0.381	0.311	-0.589	0.906	
CLU2 WITH						
CLU3	-0.568	0.090	0.000	-0.712	-0.367	*
Means						
CLU2	0.649	0.142	0.000	0.376	0.931	*

CLU3	0.873	0.153	0.000	0.578	1.174	*
PRAFACSQ	0.874	0.156	0.000	0.562	1.176	*
Thresholds						
KESCAT16\$1	12.490	5.576	0.000	7.254	28.219	*
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.842	0.183	0.000	0.311	0.995	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.246	0.017	0.000	0.212	0.279

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.158	0.183	0.000	0.005	0.689

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
———  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

NU	PRESS15	DUTIES15	PRAFACSQ
	<u>0</u>	<u>0</u>	<u>0</u>

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
KESCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0
PRAFACSQ	0	0

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		



CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	PRAFACSQ
PRESS15	<u>0</u>	<u></u>	<u></u>
DUTIES15	0	0	
PRAFACSQ	0	0	1

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>

ALPHA	
PRESS15	DUTIES15
<u>6</u>	<u>7</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA	
PRESS15	DUTIES15
<u>12</u>	<u>13</u>
PHY15	0

KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	14			
KES15	0	15	16		
CHOICE15	0	17	18	19	
BULLY15	0	20	21	22	23
PRESS15	0	24	25	26	27
DUTIES15	0	29	30	31	32

PSI	
	PRESS15
PRESS15	28
DUTIES15	33

	DUTIES15
	34

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	KESCAT16
	45

NU			
	KESCAT16	CLU2	CLU3
	0	0	0

	PRAFACSQ
	35

LAMBDA		
	KESCAT16	CLU2
		CLU3

KESCAT16	0	0	0
CLU2	0	0	0
CLU3	0	0	0
PRAFACSQ	0	0	0

THETA				
	KESCAT16	CLU2	CLU3	PRAFACSQ
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>
CLU2	0	0		
CLU3	0	0	0	
PRAFACSQ	0	0	0	36

ALPHA			
	KESCAT16	CLU2	CLU3
	<u>0</u>	<u>37</u>	<u>38</u>

BETA			
	KESCAT16	CLU2	CLU3
KESCAT16	<u>0</u>	<u>39</u>	<u>40</u>
CLU2	0	0	0
CLU3	0	0	0

PSI			
	KESCAT16	CLU2	CLU3
KESCAT16	<u>41</u>	<u></u>	<u></u>
CLU2	0	42	
CLU3	0	43	44

STARTING VALUES FOR WITHIN

TAU	
	KESCAT16
	<u>0.000</u>

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15	PRAFACSQ
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
KES15	0.000	0.000	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
CHOICE15	0.000	0.000	0.000	<u>1.000</u>	<u>0.000</u>
BULLY15	0.000	0.000	0.000	0.000	<u>1.000</u>
PRESS15	0.000	0.000	0.000	<u>0.000</u>	<u>0.000</u>
DUTIES15	0.000	0.000	0.000	0.000	<u>0.000</u>
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	<u>1.000</u>	<u>0.000</u>
DUTIES15	0.000	<u>1.000</u>
PRAFACSQ	0.000	0.000

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	PRAFACSQ
PRESS15	<u>0.000</u>	<u></u>	<u></u>
DUTIES15	0.000	0.000	
PRAFACSQ	0.000	0.000	0.754

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA	
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
	PRESS15
	<u></u>
	DUTIES15
	<u></u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.268			
KES15	0.000	0.000	0.048		
CHOICE15	0.000	0.000	0.000	0.549	
BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU

KESCAT16
1.091

NU

KESCAT16	CLU2	CLU3	PRAFACSQ
0.000	0.000	0.000	1.011

LAMBDA

	KESCAT16	CLU2	CLU3
KESCAT16	1.000	0.000	0.000
CLU2	0.000	1.000	0.000
CLU3	0.000	0.000	1.000
PRAFACSQ	0.000	0.000	0.000

THETA				
	KESCAT16	CLU2	CLU3	PRAFACSQ
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
PRAFACSQ	0.000	0.000	0.000	0.754

ALPHA			
	KESCAT16	CLU2	CLU3
	0.000	0.403	0.469

BETA			
	KESCAT16	CLU2	CLU3
KESCAT16	0.000	0.000	0.000
CLU2	0.000	0.000	0.000
CLU3	0.000	0.000	0.000

PSI			
	KESCAT16	CLU2	CLU3
KESCAT16	1.000		
CLU2	0.000	0.120	
CLU3	0.000	0.000	0.125

PRIORS FOR ALL PARAMETERS

Parameter 1~IG(-1.000,0.000)  
Parameter 2~N(0.000,infinity)

PRIOR MEAN

infinity  
0.0000

PRIOR VARIANCE

infinity  
infinity

PRIOR STD. DEV.

infinity  
infinity

Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 14~IW(1.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(1.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(1.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(1.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(0.000,7)	infinity	infinity	infinity
Parameter 34~IW(1.000,7)	infinity	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IW(1.000,3)	infinity	infinity	infinity
Parameter 43~IW(0.000,3)	infinity	infinity	infinity
Parameter 44~IW(1.000,3)	infinity	infinity	infinity
Parameter 45~N(0.000,5.000)	0.0000	5.0000	2.2361



TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.339746D-11				
2	0.512799D-09	0.972549D-04			
3	-0.115449D-10	0.915767D-05	0.159231D-04		
4	-0.100337D-08	-0.161322D-04	-0.623704D-05	0.208226D-03	
5	0.301115D-09	0.407970D-05	0.307087D-05	-0.102077D-04	0.380748D-04
6	0.278231D-09	0.160503D-04	0.974672D-05	-0.196331D-04	0.190215D-04
7	-0.797014D-10	-0.363718D-05	-0.664907D-05	0.304278D-04	-0.851290D-05
8	0.475601D-09	-0.228666D-05	-0.554512D-05	0.133464D-04	-0.157842D-05
9	0.218510D-08	-0.335435D-04	0.101135D-04	0.990424D-06	0.600531D-05
10	0.257119D-08	-0.499878D-05	-0.235886D-05	-0.214588D-05	0.437538D-05
11	-0.670567D-09	0.100315D-04	0.101694D-05	-0.217055D-04	0.817194D-05
12	0.344450D-09	0.979659D-05	0.413802D-05	0.350140D-05	0.454005D-05
13	0.604273D-09	0.197096D-05	-0.117729D-05	0.599974D-05	-0.386840D-05
14	0.433214D-09	-0.536749D-06	-0.699477D-06	0.335624D-05	0.360807D-05
15	0.131656D-09	0.957874D-06	-0.576910D-07	-0.415235D-06	0.457994D-06
16	0.172769D-09	-0.467035D-06	-0.154907D-06	-0.395686D-06	-0.375117D-06
17	-0.402654D-10	-0.358141D-05	-0.502931D-06	0.668073D-05	-0.117114D-05
18	-0.596943D-09	-0.129261D-05	0.552415D-06	0.307140D-05	-0.614345D-06
19	0.276549D-08	0.536339D-05	0.975824D-06	-0.571252D-05	0.303462D-06
20	0.382660D-10	0.140082D-05	0.913705D-06	-0.307763D-05	0.108939D-05
21	-0.461788D-10	-0.235511D-06	0.194274D-07	0.608864D-07	-0.227426D-07
22	-0.199322D-09	0.476455D-06	0.394674D-06	0.259569D-05	-0.404126D-06
23	-0.199896D-09	-0.204532D-06	0.345146D-06	0.208410D-05	0.116151D-05
24	0.173742D-09	0.149840D-05	-0.979209D-06	-0.727554D-05	-0.173367D-07
25	0.124797D-09	-0.810286D-07	-0.408430D-06	-0.505007D-05	0.428016D-06
26	0.311482D-09	-0.227228D-05	-0.121797D-05	0.330792D-05	-0.110148D-05
27	-0.345144D-09	0.831420D-06	0.177736D-06	0.192502D-06	0.150463D-05
28	-0.906710D-09	-0.189560D-05	0.135104D-05	-0.219052D-04	0.111251D-05
29	0.401495D-09	0.112634D-05	0.190003D-06	0.172876D-05	-0.119077D-06
30	-0.356687D-10	0.216887D-06	0.238990D-06	0.768733D-06	-0.386766D-06
31	-0.350207D-09	-0.119031D-06	0.174936D-05	0.152231D-05	-0.928771D-06
32	0.254304D-09	0.575393D-06	0.151811D-06	-0.273194D-05	0.912787D-07
33	0.445239D-09	-0.351374D-05	-0.245460D-05	0.107245D-04	-0.594494D-06
34	-0.448971D-09	-0.535862D-05	-0.204503D-06	0.886898D-05	-0.101033D-06
35	0.745468D-08	0.130746D-04	0.328070D-04	0.126259D-04	0.211345D-05
36	-0.555793D-07	-0.134216D-03	-0.146570D-04	0.946459D-04	0.118314D-03
37	-0.155794D-08	0.173175D-04	-0.167140D-05	0.157329D-04	0.274422D-05

38	0.247899D-09	0.106098D-04	0.122679D-04	-0.115221D-04	0.789908D-05
39	0.533019D-08	0.501488D-05	0.106102D-04	0.108931D-04	0.614687D-07
40	0.721026D-08	0.115212D-04	0.980154D-05	0.390397D-05	-0.748010D-05
41	-0.176633D-09	-0.187276D-05	-0.369050D-06	0.151994D-06	0.380785D-05
42	-0.402505D-09	-0.218845D-05	-0.696830D-06	0.274330D-04	-0.506434D-05
43	0.103666D-08	0.114939D-05	-0.137958D-06	-0.675777D-05	0.823227D-06
44	0.120022D-08	0.456704D-05	-0.298408D-05	-0.433204D-05	-0.324001D-05
45	0.311533D-08	-0.686658D-05	0.145974D-04	-0.199465D-04	0.327440D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.200736D-03				
7	-0.313808D-04	0.146884D-03			
8	-0.899724D-05	0.734903D-05	0.111250D-02		
9	0.391807D-05	-0.695558D-05	-0.387077D-03	0.711417D-02	
10	0.237900D-05	-0.675564D-05	0.482407D-04	-0.525017D-04	0.590179D-03
11	-0.174612D-04	-0.577155D-05	-0.831040D-04	-0.219243D-03	0.141334D-03
12	0.135157D-04	0.109168D-05	-0.265785D-04	-0.278918D-03	0.233002D-04
13	-0.414641D-05	0.815337D-05	0.323402D-04	0.142548D-03	-0.346834D-04
14	0.199214D-05	-0.160898D-05	0.109304D-04	0.133044D-04	0.122922D-04
15	0.927493D-06	-0.301572D-06	0.255584D-05	0.512363D-05	0.211055D-05
16	0.917311D-07	-0.294316D-06	0.279343D-05	-0.361536D-05	0.642446D-07
17	0.106781D-06	0.882832D-07	-0.350355D-05	0.128678D-04	0.388093D-05
18	-0.318016D-05	0.312959D-05	-0.170523D-05	0.451559D-05	0.487136D-05
19	0.967935D-05	0.314686D-05	0.216607D-04	-0.553310D-04	-0.940381D-05
20	-0.655677D-06	-0.866623D-06	-0.166321D-05	0.112235D-05	0.529721D-05
21	-0.757903D-06	-0.179487D-06	0.217723D-06	-0.553533D-05	-0.120847D-05
22	-0.187485D-05	0.114897D-05	0.206440D-06	0.465344D-04	0.438539D-05
23	-0.104041D-05	-0.308431D-06	-0.312596D-05	0.685771D-05	0.118018D-06
24	0.226171D-06	-0.241215D-05	-0.351235D-05	0.244786D-05	0.495122D-05
25	0.169856D-05	-0.200772D-05	0.304118D-05	-0.814905D-06	0.271838D-05
26	-0.203847D-05	0.311735D-06	-0.706059D-05	0.461427D-04	-0.716412D-06
27	-0.385832D-05	0.124093D-05	-0.580242D-05	-0.730908D-05	0.297743D-05
28	-0.207298D-06	-0.127144D-05	0.448754D-04	-0.417676D-04	0.260231D-05
29	0.313433D-05	0.429482D-05	-0.157375D-05	-0.199162D-04	-0.600134D-05
30	-0.961957D-06	0.198523D-05	-0.800770D-06	0.754442D-05	-0.390753D-05
31	-0.830503D-05	0.385982D-06	-0.342187D-05	-0.350845D-04	0.232602D-05
32	0.346989D-06	-0.241846D-05	-0.940135D-06	0.216366D-04	0.309587D-05
33	-0.150204D-07	0.510955D-05	0.402457D-05	0.914802D-04	-0.383972D-05
34	-0.157247D-05	0.207306D-06	0.742961D-05	-0.198282D-04	0.123180D-04
35	0.887982D-04	0.262671D-04	0.117458D-03	0.446902D-03	-0.348464D-04
36	0.454246D-05	0.945919D-04	0.267253D-03	0.694210D-03	-0.352332D-04

37	-0.167789D-04	0.326052D-04	-0.828996D-05	0.125416D-03	0.421397D-04
38	0.207884D-04	-0.197268D-04	-0.536709D-05	-0.132340D-03	-0.883099D-04
39	0.348279D-04	0.113702D-05	-0.407094D-04	0.520323D-03	-0.531479D-05
40	0.175933D-04	0.381853D-06	-0.136005D-03	0.112241D-03	0.103437D-03
41	0.101376D-05	-0.271914D-05	0.293755D-05	0.460366D-04	-0.105446D-05
42	0.220557D-04	0.120335D-04	0.268556D-04	0.886169D-04	0.222616D-04
43	-0.826247D-05	-0.966006D-05	-0.148152D-04	-0.687493D-04	-0.275541D-04
44	0.844019D-05	0.826105D-06	0.229839D-04	0.757112D-04	-0.715421D-05
45	0.176259D-04	-0.244572D-05	-0.129898D-04	0.124835D-02	0.279949D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.228222D-02				
12	-0.246421D-03	0.681675D-03			
13	0.113437D-03	0.111849D-03	0.745614D-03		
14	-0.128147D-04	0.876602D-05	-0.561249D-05	0.102073D-03	
15	-0.138917D-05	0.474821D-06	0.893160D-06	0.917872D-05	0.973891D-05
16	-0.211526D-05	0.781847D-06	0.770739D-06	0.331921D-06	0.164874D-05
17	0.100139D-04	-0.883043D-05	-0.643272D-05	-0.211798D-04	-0.587741D-05
18	0.444226D-06	-0.248405D-05	0.119490D-05	-0.229637D-05	-0.206722D-05
19	-0.139180D-04	0.128531D-05	-0.173025D-04	0.144229D-04	0.207375D-05
20	-0.129348D-05	0.457198D-05	0.440766D-05	0.443504D-05	0.236198D-05
21	0.371187D-05	-0.883758D-06	0.634128D-06	0.366972D-06	0.673261D-06
22	-0.798965D-06	-0.131731D-05	0.130312D-05	-0.719081D-06	-0.561065D-06
23	0.364344D-05	-0.424100D-05	0.105133D-05	-0.183666D-05	0.868351D-06
24	-0.106833D-05	-0.767398D-05	-0.691534D-05	0.124918D-04	0.663421D-05
25	-0.115306D-05	0.455140D-06	-0.285879D-05	0.133655D-05	0.211924D-05
26	-0.116773D-04	-0.156962D-04	0.505057D-05	0.865533D-06	-0.284585D-05
27	0.764215D-05	-0.552443D-05	0.724038D-06	-0.192530D-06	0.142458D-05
28	0.293904D-04	0.814502D-05	-0.796250D-06	0.582912D-05	0.246452D-05
29	-0.222813D-04	-0.451319D-05	0.119511D-05	-0.133045D-04	-0.523543D-05
30	-0.619358D-05	-0.281026D-05	0.715316D-05	-0.232897D-05	-0.161336D-05
31	-0.131635D-04	-0.817711D-05	-0.195224D-04	0.660025D-05	0.156682D-05
32	-0.160751D-04	0.399502D-05	0.149754D-05	-0.245911D-06	-0.101807D-05
33	-0.184646D-04	-0.528716D-05	0.442100D-05	-0.111025D-05	-0.280632D-05
34	0.138051D-04	0.516918D-05	-0.914942D-05	0.456350D-05	0.180271D-05
35	-0.308132D-04	-0.804924D-04	0.216355D-04	0.118970D-03	0.209312D-04
36	0.341520D-03	-0.636671D-04	-0.741029D-03	-0.167936D-04	0.238289D-05
37	0.146298D-03	-0.474122D-04	0.262194D-04	0.112691D-04	-0.123482D-05
38	-0.737560D-04	-0.209321D-04	-0.979841D-04	-0.266794D-05	-0.509455D-05
39	0.112713D-03	-0.612950D-04	-0.132666D-03	-0.106617D-04	-0.563023D-05
40	-0.788014D-04	0.365698D-04	-0.559317D-04	-0.801251D-05	-0.303848D-05

41	0.142229D-04	0.101546D-04	-0.771217D-05	0.264319D-06	0.218153D-06
42	-0.681594D-04	-0.250921D-04	0.219004D-04	0.103676D-05	0.179443D-05
43	0.245132D-04	-0.122926D-04	-0.999144D-05	-0.768696D-06	0.884809D-06
44	0.267293D-04	0.459843D-05	-0.149759D-04	-0.127428D-04	-0.280608D-05
45	0.548388D-04	-0.599289D-04	-0.138587D-03	0.298994D-05	-0.168209D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.347356D-05				
17	-0.515397D-06	0.120885D-03			
18	-0.120613D-05	0.128394D-04	0.196056D-04		
19	-0.451549D-06	-0.483671D-04	-0.175459D-04	0.449769D-03	
20	0.234154D-06	-0.727010D-05	-0.892452D-06	0.281381D-05	0.204676D-04
21	0.710348D-06	-0.502824D-06	-0.583775D-06	-0.562747D-06	0.228237D-05
22	-0.268570D-06	0.533084D-05	0.437099D-05	-0.195707D-04	-0.458204D-05
23	0.218110D-06	-0.150995D-05	-0.293267D-06	-0.377719D-06	0.175090D-05
24	0.326043D-07	-0.140725D-04	-0.290009D-05	0.999475D-05	0.963608D-05
25	0.174407D-05	-0.692536D-06	-0.599615D-06	0.307043D-05	0.954746D-06
26	-0.958603D-06	0.180221D-04	0.105243D-04	-0.381123D-04	-0.242236D-05
27	0.237878D-06	-0.810274D-06	-0.265911D-07	-0.216766D-05	0.232607D-05
28	0.284611D-06	0.441013D-06	-0.431972D-06	0.237680D-05	-0.293647D-06
29	-0.613092D-06	0.210257D-04	0.154524D-05	-0.453770D-05	-0.501445D-05
30	-0.173498D-05	0.156901D-05	0.236386D-05	-0.257939D-05	-0.654181D-06
31	0.759171D-06	-0.143494D-04	-0.771112D-05	0.603280D-04	-0.769969D-06
32	-0.482420D-06	0.229133D-05	0.693709D-06	-0.302295D-05	-0.236664D-05
33	-0.117206D-06	0.647819D-05	0.236816D-06	-0.631356D-05	-0.510186D-06
34	-0.403441D-06	-0.269837D-05	-0.227656D-05	0.192535D-04	0.109732D-05
35	-0.115412D-04	-0.733337D-04	0.206771D-04	-0.101217D-03	0.217022D-05
36	-0.351334D-04	0.176245D-03	0.961279D-04	-0.653149D-04	-0.955045D-04
37	0.234911D-05	-0.666752D-05	0.697762D-06	0.156485D-04	-0.480177D-05
38	-0.131307D-05	0.255025D-04	0.838745D-05	0.541081D-04	0.126389D-04
39	0.972583D-05	-0.276125D-04	-0.219198D-04	0.812478D-04	0.148550D-04
40	0.370809D-05	-0.227473D-04	-0.980020D-05	0.110844D-03	0.148186D-04
41	0.508225D-06	0.237744D-05	-0.582245D-06	0.165883D-06	-0.145812D-05
42	0.310204D-05	0.373380D-04	0.492059D-05	-0.570833D-04	-0.725930D-05
43	-0.258583D-05	-0.202272D-04	0.774045D-06	0.206027D-04	0.939619D-06
44	0.204339D-05	0.101494D-04	-0.120656D-04	0.288076D-04	0.263105D-05
45	0.717266D-05	-0.245169D-04	-0.231056D-04	0.634311D-04	0.812166D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
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21	0.391529D-05				
22	-0.155685D-05	0.444088D-04			
23	0.138040D-05	-0.368302D-05	0.168159D-04		
24	0.451514D-06	-0.329039D-05	0.808762D-06	0.108842D-03	
25	0.194617D-05	-0.187157D-05	0.100921D-05	0.104677D-04	0.179730D-04
26	-0.179232D-05	0.169641D-04	-0.544083D-06	-0.219950D-04	-0.490250D-05
27	0.236598D-05	-0.325457D-05	0.669583D-05	0.736494D-05	0.463621D-05
28	0.191313D-05	-0.258958D-05	0.386886D-05	0.234835D-04	0.172702D-04
29	-0.449981D-06	0.360761D-05	-0.188195D-05	-0.155954D-04	-0.221303D-05
30	-0.118592D-05	0.153373D-05	-0.102200D-05	-0.158159D-05	-0.322273D-05
31	0.473802D-06	-0.112038D-04	0.749366D-06	0.942682D-05	0.192080D-05
32	-0.191022D-05	0.710189D-05	-0.483679D-05	-0.323634D-05	-0.310668D-05
33	-0.135429D-05	0.214477D-05	-0.150399D-05	-0.917508D-05	-0.108184D-04
34	0.708653D-06	-0.780002D-05	0.183064D-05	-0.358949D-05	0.125122D-05
35	-0.137450D-05	0.382874D-04	-0.287203D-05	0.280863D-04	-0.298533D-04
36	-0.134299D-05	-0.295629D-05	0.390771D-04	-0.381252D-03	-0.486763D-04
37	0.392765D-05	0.560414D-05	-0.140559D-06	-0.958564D-06	0.143321D-04
38	0.458267D-06	-0.145321D-04	0.266019D-05	0.229057D-04	-0.112122D-04
39	0.164536D-05	0.300478D-04	-0.963117D-05	0.279549D-04	0.440924D-05
40	0.374765D-05	0.460040D-04	-0.191828D-04	0.179278D-04	-0.124514D-04
41	-0.346297D-06	0.254983D-06	0.129761D-05	0.762732D-06	-0.586866D-06
42	0.614558D-06	0.127049D-04	-0.763362D-05	-0.237900D-04	-0.519013D-05
43	-0.960206D-06	0.638245D-06	0.485535D-05	0.671101D-05	-0.271711D-06
44	0.182367D-06	-0.123367D-04	-0.537757D-06	0.641825D-05	0.130880D-05
45	0.102232D-05	0.386187D-04	-0.999474D-05	0.147523D-04	-0.756679D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.205880D-03				
27	-0.139108D-04	0.418453D-04			
28	-0.296428D-04	0.376049D-04	0.359068D-03		
29	0.112923D-04	-0.154326D-05	0.223141D-05	0.803330D-04	
30	0.310237D-05	-0.182956D-06	-0.587206D-05	0.941128D-05	0.153211D-04
31	-0.331982D-04	0.538644D-06	0.235768D-05	-0.137462D-04	-0.752918D-05
32	0.883572D-05	-0.651419D-05	-0.602246D-05	0.574497D-05	0.416484D-05
33	0.364925D-04	-0.137304D-04	-0.579525D-04	0.148710D-04	0.862568D-05
34	-0.164170D-04	0.132459D-05	0.535587D-05	-0.212578D-04	-0.151092D-04
35	-0.121025D-03	-0.148598D-04	-0.426680D-04	-0.445671D-06	-0.121403D-06
36	-0.821915D-04	-0.132151D-04	0.471585D-04	0.107034D-04	-0.454653D-04
37	-0.527741D-05	0.102695D-04	0.125190D-05	-0.137144D-04	0.272995D-05
38	-0.436263D-05	-0.441925D-05	-0.184398D-04	-0.370277D-05	-0.297296D-05

39	0.196812D-05	-0.115584D-04	-0.408847D-05	-0.924442D-05	-0.109793D-04
40	-0.187460D-05	-0.455053D-05	-0.330024D-04	-0.154129D-04	-0.131456D-04
41	-0.110466D-05	-0.796087D-06	0.160315D-05	-0.326550D-05	-0.242892D-05
42	0.178291D-04	-0.353593D-05	0.182560D-04	0.909716D-05	-0.623557D-05
43	-0.712311D-05	0.370578D-05	-0.217540D-04	0.105355D-05	0.415389D-05
44	-0.582227D-05	0.323524D-05	0.162001D-04	-0.789491D-05	-0.309083D-05
45	-0.236778D-04	-0.181600D-05	0.201869D-05	-0.171638D-04	-0.105008D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.172727D-03				
32	-0.860262D-05	0.376122D-04			
33	-0.135545D-04	0.172912D-04	0.152677D-03		
34	0.562508D-04	-0.190075D-04	-0.477274D-04	0.255314D-03	
35	0.100515D-03	-0.130155D-04	0.179053D-05	0.448652D-04	0.445133D-01
36	0.679377D-04	-0.499289D-04	-0.172186D-03	-0.144752D-04	-0.238268D-03
37	0.101627D-04	-0.295332D-05	0.166909D-05	-0.479549D-04	0.118256D-03
38	-0.394693D-05	-0.824855D-06	0.301804D-04	0.510974D-04	0.286355D-03
39	0.569039D-04	0.925185D-06	-0.670974D-05	0.120548D-04	-0.355365D-03
40	0.430747D-04	-0.436133D-06	-0.407943D-05	-0.139600D-04	0.323930D-03
41	0.157001D-05	-0.440028D-06	0.857746D-06	0.375584D-06	-0.979732D-04
42	-0.133156D-04	0.181940D-06	0.583910D-05	0.185749D-04	-0.317015D-04
43	0.169030D-04	0.221275D-05	-0.179385D-05	-0.164073D-04	0.299987D-04
44	-0.186191D-04	-0.253597D-05	-0.215597D-04	0.327829D-04	-0.802156D-04
45	0.465210D-04	-0.755823D-05	-0.188189D-04	-0.204060D-05	-0.204797D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.260148D+00				
37	-0.226121D-03	0.397620D-02			
38	-0.226049D-02	-0.243516D-02	0.487692D-02		
39	-0.540414D-03	-0.331774D-04	-0.527830D-04	0.824244D-02	
40	0.364384D-03	-0.506232D-04	-0.771096D-04	0.543136D-02	0.737596D-02
41	0.284983D-03	-0.603206D-05	-0.152790D-04	0.109347D-03	0.654977D-04
42	-0.215431D-03	0.688082D-04	0.331566D-05	0.141014D-03	-0.229541D-04
43	0.172244D-03	0.380491D-04	-0.752144D-04	-0.108278D-03	-0.337242D-05
44	-0.469831D-03	-0.908719D-04	0.173595D-03	0.104601D-03	0.207676D-04
45	0.545433D-03	-0.852423D-04	-0.661620D-04	0.567447D-02	0.544625D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	0.699959D-04				
42	0.652080D-05	0.191008D-02			
43	-0.208879D-05	-0.113056D-02	0.143357D-02		
44	0.154472D-04	0.644480D-03	-0.129409D-02	0.256722D-02	
45	0.112497D-03	0.903482D-04	-0.820482D-04	0.118566D-03	0.580703D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.028	1.000			
3	-0.002	0.233	1.000		
4	-0.038	-0.113	-0.108	1.000	
5	0.026	0.067	0.125	-0.115	1.000
6	0.011	0.115	0.172	-0.096	0.218
7	-0.004	-0.030	-0.137	0.174	-0.114
8	0.008	-0.007	-0.042	0.028	-0.008
9	0.014	-0.040	0.030	0.001	0.012
10	0.057	-0.021	-0.024	-0.006	0.029
11	-0.008	0.021	0.005	-0.031	0.028
12	0.007	0.038	0.040	0.009	0.028
13	0.012	0.007	-0.011	0.015	-0.023
14	0.023	-0.005	-0.017	0.023	0.058
15	0.023	0.031	-0.005	-0.009	0.024
16	0.050	-0.025	-0.021	-0.015	-0.033
17	-0.002	-0.033	-0.011	0.042	-0.017
18	-0.073	-0.030	0.031	0.048	-0.022
19	0.071	0.026	0.012	-0.019	0.002
20	0.005	0.031	0.051	-0.047	0.039
21	-0.013	-0.012	0.002	0.002	-0.002
22	-0.016	0.007	0.015	0.027	-0.010
23	-0.026	-0.005	0.021	0.035	0.046
24	0.009	0.015	-0.024	-0.048	0.000
25	0.016	-0.002	-0.024	-0.083	0.016
26	0.012	-0.016	-0.021	0.016	-0.012
27	-0.029	0.013	0.007	0.002	0.038
28	-0.026	-0.010	0.018	-0.080	0.010
29	0.024	0.013	0.005	0.013	-0.002
30	-0.005	0.006	0.015	0.014	-0.016
31	-0.014	-0.001	0.033	0.008	-0.011

32	0.022	0.010	0.006	-0.031	0.002
33	0.020	-0.029	-0.050	0.060	-0.008
34	-0.015	-0.034	-0.003	0.038	-0.001
35	0.019	0.006	0.039	0.004	0.002
36	-0.059	-0.027	-0.007	0.013	0.038
37	-0.013	0.028	-0.007	0.017	0.007
38	0.002	0.015	0.044	-0.011	0.018
39	0.032	0.006	0.029	0.008	0.000
40	0.046	0.014	0.029	0.003	-0.014
41	-0.011	-0.023	-0.011	0.001	0.074
42	-0.005	-0.005	-0.004	0.043	-0.019
43	0.015	0.003	-0.001	-0.012	0.004
44	0.013	0.009	-0.015	-0.006	-0.010
45	0.022	-0.009	0.048	-0.018	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.183	1.000			
8	-0.019	0.018	1.000		
9	0.003	-0.007	-0.138	1.000	
10	0.007	-0.023	0.060	-0.026	1.000
11	-0.026	-0.010	-0.052	-0.054	0.122
12	0.037	0.003	-0.031	-0.127	0.037
13	-0.011	0.025	0.036	0.062	-0.052
14	0.014	-0.013	0.032	0.016	0.050
15	0.021	-0.008	0.025	0.019	0.028
16	0.003	-0.013	0.045	-0.023	0.001
17	0.001	0.001	-0.010	0.014	0.015
18	-0.051	0.058	-0.012	0.012	0.045
19	0.032	0.012	0.031	-0.031	-0.018
20	-0.010	-0.016	-0.011	0.003	0.048
21	-0.027	-0.007	0.003	-0.033	-0.025
22	-0.020	0.014	0.001	0.083	0.027
23	-0.018	-0.006	-0.023	0.020	0.001
24	0.002	-0.019	-0.010	0.003	0.020
25	0.028	-0.039	0.022	-0.002	0.026
26	-0.010	0.002	-0.015	0.038	-0.002
27	-0.042	0.016	-0.027	-0.013	0.019
28	-0.001	-0.006	0.071	-0.026	0.006
29	0.025	0.040	-0.005	-0.026	-0.028
30	-0.017	0.042	-0.006	0.023	-0.041



31	-0.045	0.002	-0.008	-0.032	0.007
32	0.004	-0.033	-0.005	0.042	0.021
33	0.000	0.034	0.010	0.088	-0.013
34	-0.007	0.001	0.014	-0.015	0.032
35	0.030	0.010	0.017	0.025	-0.007
36	0.001	0.015	0.016	0.016	-0.003
37	-0.019	0.043	-0.004	0.024	0.028
38	0.021	-0.023	-0.002	-0.022	-0.052
39	0.027	0.001	-0.013	0.068	-0.002
40	0.014	0.000	-0.047	0.015	0.050
41	0.009	-0.027	0.011	0.065	-0.005
42	0.036	0.023	0.018	0.024	0.021
43	-0.015	-0.021	-0.012	-0.022	-0.030
44	0.012	0.001	0.014	0.018	-0.006
45	0.016	-0.003	-0.005	0.194	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	1.000				
12	-0.198	1.000			
13	0.087	0.157	1.000		
14	-0.027	0.033	-0.020	1.000	
15	-0.009	0.006	0.010	0.291	1.000
16	-0.024	0.016	0.015	0.018	0.283
17	0.019	-0.031	-0.021	-0.191	-0.171
18	0.002	-0.021	0.010	-0.051	-0.150
19	-0.014	0.002	-0.030	0.067	0.031
20	-0.006	0.039	0.036	0.097	0.167
21	0.039	-0.017	0.012	0.018	0.109
22	-0.003	-0.008	0.007	-0.011	-0.027
23	0.019	-0.040	0.009	-0.044	0.068
24	-0.002	-0.028	-0.024	0.119	0.204
25	-0.006	0.004	-0.025	0.031	0.160
26	-0.017	-0.042	0.013	0.006	-0.064
27	0.025	-0.033	0.004	-0.003	0.071
28	0.032	0.016	-0.002	0.030	0.042
29	-0.052	-0.019	0.005	-0.147	-0.187
30	-0.033	-0.027	0.067	-0.059	-0.132
31	-0.021	-0.024	-0.054	0.050	0.038
32	-0.055	0.025	0.009	-0.004	-0.053
33	-0.031	-0.016	0.013	-0.009	-0.073
34	0.018	0.012	-0.021	0.028	0.036

35	-0.003	-0.015	0.004	0.056	0.032
36	0.014	-0.005	-0.053	-0.003	0.001
37	0.049	-0.029	0.015	0.018	-0.006
38	-0.022	-0.011	-0.051	-0.004	-0.023
39	0.026	-0.026	-0.054	-0.012	-0.020
40	-0.019	0.016	-0.024	-0.009	-0.011
41	0.036	0.046	-0.034	0.003	0.008
42	-0.033	-0.022	0.018	0.002	0.013
43	0.014	-0.012	-0.010	-0.002	0.007
44	0.011	0.003	-0.011	-0.025	-0.018
45	0.015	-0.030	-0.067	0.004	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	-0.025	1.000			
18	-0.146	0.264	1.000		
19	-0.011	-0.207	-0.187	1.000	
20	0.028	-0.146	-0.045	0.029	1.000
21	0.193	-0.023	-0.067	-0.013	0.255
22	-0.022	0.073	0.148	-0.138	-0.152
23	0.029	-0.033	-0.016	-0.004	0.094
24	0.002	-0.123	-0.063	0.045	0.204
25	0.221	-0.015	-0.032	0.034	0.050
26	-0.036	0.114	0.166	-0.125	-0.037
27	0.020	-0.011	-0.001	-0.016	0.079
28	0.008	0.002	-0.005	0.006	-0.003
29	-0.037	0.213	0.039	-0.024	-0.124
30	-0.238	0.036	0.136	-0.031	-0.037
31	0.031	-0.099	-0.133	0.216	-0.013
32	-0.042	0.034	0.026	-0.023	-0.085
33	-0.005	0.048	0.004	-0.024	-0.009
34	-0.014	-0.015	-0.032	0.057	0.015
35	-0.029	-0.032	0.022	-0.023	0.002
36	-0.037	0.031	0.043	-0.006	-0.041
37	0.020	-0.010	0.002	0.012	-0.017
38	-0.010	0.033	0.027	0.037	0.040
39	0.057	-0.028	-0.055	0.042	0.036
40	0.023	-0.024	-0.026	0.061	0.038
41	0.033	0.026	-0.016	0.001	-0.039
42	0.038	0.078	0.025	-0.062	-0.037
43	-0.037	-0.049	0.005	0.026	0.005

44	0.022	0.018	-0.054	0.027	0.011
45	0.051	-0.029	-0.068	0.039	0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.118	1.000			
23	0.170	-0.135	1.000		
24	0.022	-0.047	0.019	1.000	
25	0.232	-0.066	0.058	0.237	1.000
26	-0.063	0.177	-0.009	-0.147	-0.081
27	0.185	-0.075	0.252	0.109	0.169
28	0.051	-0.021	0.050	0.119	0.215
29	-0.025	0.060	-0.051	-0.167	-0.058
30	-0.153	0.059	-0.064	-0.039	-0.194
31	0.018	-0.128	0.014	0.069	0.034
32	-0.157	0.174	-0.192	-0.051	-0.119
33	-0.055	0.026	-0.030	-0.071	-0.207
34	0.022	-0.073	0.028	-0.022	0.018
35	-0.003	0.027	-0.003	0.013	-0.033
36	-0.001	-0.001	0.019	-0.072	-0.023
37	0.031	0.013	-0.001	-0.001	0.054
38	0.003	-0.031	0.009	0.031	-0.038
39	0.009	0.050	-0.026	0.030	0.011
40	0.022	0.080	-0.054	0.020	-0.034
41	-0.021	0.005	0.038	0.009	-0.017
42	0.007	0.044	-0.043	-0.052	-0.028
43	-0.013	0.003	0.031	0.017	-0.002
44	0.002	-0.037	-0.003	0.012	0.006
45	0.007	0.076	-0.032	0.019	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	-0.150	1.000			
28	-0.109	0.307	1.000		
29	0.088	-0.027	0.013	1.000	
30	0.055	-0.007	-0.079	0.268	1.000
31	-0.176	0.006	0.009	-0.117	-0.146
32	0.100	-0.164	-0.052	0.105	0.173

33	0.206	-0.172	-0.248	0.134	0.178
34	-0.072	0.013	0.018	-0.148	-0.242
35	-0.040	-0.011	-0.011	0.000	0.000
36	-0.011	-0.004	0.005	0.002	-0.023
37	-0.006	0.025	0.001	-0.024	0.011
38	-0.004	-0.010	-0.014	-0.006	-0.011
39	0.002	-0.020	-0.002	-0.011	-0.031
40	-0.002	-0.008	-0.020	-0.020	-0.039
41	-0.009	-0.015	0.010	-0.044	-0.074
42	0.028	-0.013	0.022	0.023	-0.036
43	-0.013	0.015	-0.030	0.003	0.028
44	-0.008	0.010	0.017	-0.017	-0.016
45	-0.022	-0.004	0.001	-0.025	-0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.107	1.000			
33	-0.083	0.228	1.000		
34	0.268	-0.194	-0.242	1.000	
35	0.036	-0.010	0.001	0.013	1.000
36	0.010	-0.016	-0.027	-0.002	-0.002
37	0.012	-0.008	0.002	-0.048	0.009
38	-0.004	-0.002	0.035	0.046	0.019
39	0.048	0.002	-0.006	0.008	-0.019
40	0.038	-0.001	-0.004	-0.010	0.018
41	0.014	-0.009	0.008	0.003	-0.056
42	-0.023	0.001	0.011	0.027	-0.003
43	0.034	0.010	-0.004	-0.027	0.004
44	-0.028	-0.008	-0.034	0.040	-0.008
45	0.046	-0.016	-0.020	-0.002	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.007	1.000			
38	-0.063	-0.553	1.000		
39	-0.012	-0.006	-0.008	1.000	
40	0.008	-0.009	-0.013	0.697	1.000
41	0.067	-0.011	-0.026	0.144	0.091

42	-0.010	0.025	0.001	0.036	-0.006
43	0.009	0.016	-0.028	-0.031	-0.001
44	-0.018	-0.028	0.049	0.023	0.005
45	0.014	-0.018	-0.012	0.820	0.832

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.018	1.000			
43	-0.007	-0.683	1.000		
44	0.036	0.291	-0.675	1.000	
45	0.176	0.027	-0.028	0.031	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.015	6
200	1.018	9
300	1.002	43
400	1.008	9
500	1.004	9
600	1.002	9
700	1.006	13
800	1.001	17
900	1.001	17
1000	1.001	9

This is reduced psychological distress

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000

	58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3		0.448	0.208	0.000	55.17%	0.000	0.000	0.000
	58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-22.381 26.792

Posterior Predictive P-Value 0.503

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.164	0.051	0.001	0.063	0.260	*
CHOICE15	0.028	0.039	0.241	-0.050	0.107	
BULLY15	0.103	0.059	0.033	-0.005	0.222	
DUTIES15	-0.079	0.043	0.027	-0.168	0.004	
PRESS15	-0.048	0.040	0.117	-0.125	0.030	
KES15	0.802	0.095	0.000	0.615	0.991	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
CLU2	-0.130	0.160	0.205	-0.448	0.196	
CLU3	0.076	0.152	0.294	-0.212	0.394	
CLU2 WITH						
CLU3	-0.138	0.038	0.000	-0.225	-0.079	*
Means						
CLU2	0.309	0.063	0.000	0.187	0.435	*
CLU3	0.453	0.071	0.000	0.312	0.587	*
Thresholds						
KESCAT16\$1	-0.471	0.130	0.000	-0.721	-0.205	*
Variances						
CLU2	0.229	0.045	0.000	0.162	0.341	*
CLU3	0.264	0.050	0.000	0.187	0.380	*
Residual Variances						
KESCAT16	0.033	0.040	0.000	0.001	0.157	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.121	0.037	0.001	0.047	0.191	*
CHOICE15	0.027	0.037	0.241	-0.048	0.101	
BULLY15	0.071	0.040	0.033	-0.003	0.153	

DUTIES15	-0.071	0.038	0.027	-0.147	0.004	
PRESS15	-0.045	0.038	0.117	-0.118	0.030	
KES15	0.396	0.040	0.000	0.311	0.473	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
CLU2	-0.309	0.356	0.205	-0.989	0.425	
CLU3	0.188	0.359	0.294	-0.563	0.863	
CLU2 WITH						
CLU3	-0.566	0.086	0.000	-0.708	-0.383	*
Means						
CLU2	0.649	0.145	0.000	0.362	0.930	*
CLU3	0.882	0.156	0.000	0.577	1.195	*
Thresholds						
KESCAT16\$1	-2.170	1.248	0.000	-5.631	-0.676	*
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.713	0.232	0.000	0.103	0.980	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.221	0.034	0.000	0.157	0.287

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.287	0.232	0.000	0.020	0.897

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA		
	PRESS15	DUTIES15
	5	6

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	KESCAT16
	<u>42</u>

NU			
	KESCAT16	CLU2	CLU3
	<u></u>	<u></u>	<u></u>

0                      0                      0

# LAMBDA

	KESCAT16	CLU2	CLU3
KESCAT16	0	0	0
CLU2	0	0	0
CLU3	0	0	0

# THETA

	KESCAT16	CLU2	CLU3
KESCAT16	0		
CLU2	0	0	
CLU3	0	0	0

# ALPHA

	KESCAT16	CLU2	CLU3
	0	34	35

# BETA

	KESCAT16	CLU2	CLU3
KESCAT16	0	36	37
CLU2	0	0	0
CLU3	0	0	0

# PSI

	KESCAT16	CLU2	CLU3
KESCAT16	38		
CLU2	0	39	
CLU3	0	40	41

STARTING VALUES FOR WITHIN



TAU  
KESCAT16  

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0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

---

0.000      

---

0.000      

---

0.000      

---

0.000      

---

0.000

NU  
PRESS15      DUTIES15  

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0.000      

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0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>				
PHY15	0.000	<u>0.351</u>			
KES15	0.000	0.000	<u>0.157</u>		
CHOICE15	0.000	0.000	0.000	<u>0.597</u>	
BULLY15	0.000	0.000	0.000	0.000	<u>0.301</u>
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	
DUTIES15	0.000	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU			
	KESCAT16	CLU2	CLU3
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA

	KESCAT16	CLU2	CLU3
KESCAT16	1.000	0.000	0.000
CLU2	0.000	1.000	0.000
CLU3	0.000	0.000	1.000

THETA			
	KESCAT16	CLU2	CLU3
KESCAT16	0.000		
CLU2	0.000	0.000	
CLU3	0.000	0.000	0.000

ALPHA			
	KESCAT16	CLU2	CLU3
	0.000	0.380	0.495

BETA			
	KESCAT16	CLU2	CLU3
KESCAT16	0.000	0.000	0.000
CLU2	0.000	0.000	0.000
CLU3	0.000	0.000	0.000

PSI			
	KESCAT16	CLU2	CLU3
KESCAT16	1.000		
CLU2	0.000	0.118	
CLU3	0.000	0.000	0.125

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925407D-04	-0.649532D-04	0.111153D-02		
4	0.451962D-04	0.736537D-04	-0.136566D-03	0.544158D-03	
5	0.101066D-03	0.446049D-04	-0.215397D-03	0.177234D-03	0.108758D-02
6	-0.408520D-04	-0.473487D-04	0.976788D-04	-0.161986D-03	-0.253058D-03
7	-0.267905D-04	-0.140657D-04	-0.672284D-04	-0.110193D-04	0.242929D-04
8	0.653779D-04	-0.777897D-05	0.780222D-04	-0.124543D-04	-0.617926D-04
9	0.137540D-04	0.125661D-04	0.404128D-04	0.178970D-04	0.620300D-04
10	-0.980739D-05	0.288049D-04	0.352162D-04	0.103342D-04	0.369512D-04
11	0.352650D-04	0.102974D-04	-0.187129D-04	-0.129657D-04	0.120991D-04
12	0.974989D-06	0.156877D-04	-0.188928D-04	0.151876D-04	-0.910874D-04
13	0.611672D-04	0.212392D-04	-0.183465D-04	0.535780D-06	0.323046D-04
14	-0.108321D-05	0.118215D-04	-0.293400D-05	-0.151596D-04	-0.196764D-04
15	0.586035D-05	0.141467D-05	0.195669D-04	-0.166318D-04	-0.973637D-05
16	-0.436382D-04	-0.212681D-04	0.229361D-05	0.728133D-05	-0.174009D-04
17	0.579645D-06	0.109632D-04	-0.787867D-05	0.178073D-06	0.138677D-04
18	-0.383079D-04	-0.125196D-05	-0.341442D-04	0.775521D-05	0.209361D-04
19	0.998042D-05	0.174761D-04	0.153319D-04	-0.703121D-05	-0.129144D-04
20	0.517479D-05	0.215186D-05	0.654335D-06	0.933503D-05	0.686907D-05
21	0.830887D-05	-0.827599D-05	0.110508D-04	0.132026D-05	-0.288521D-04
22	0.169987D-04	0.430258D-05	-0.561622D-05	0.192135D-04	0.568239D-04
23	0.254761D-04	0.125191D-04	0.830616D-05	-0.153088D-04	0.219502D-04
24	0.452282D-05	0.212138D-05	0.163361D-04	0.962751D-05	0.159410D-04
25	-0.284351D-05	-0.388770D-05	-0.173818D-04	0.186676D-04	-0.510699D-05
26	-0.326295D-05	-0.116934D-04	0.199705D-05	0.236659D-04	0.304977D-04
27	0.343437D-04	-0.451642D-05	-0.246357D-04	0.183626D-04	0.476331D-04
28	-0.949421D-05	-0.209439D-04	-0.878791D-05	-0.345178D-04	-0.194420D-04
29	-0.212446D-05	0.179388D-05	-0.109482D-04	-0.408132D-05	0.198266D-04
30	-0.609548D-05	-0.126385D-04	-0.169529D-04	0.102243D-04	0.467616D-04
31	-0.882280D-05	0.161219D-05	0.306216D-04	-0.184860D-04	-0.476247D-05
32	-0.429035D-04	0.405188D-05	0.729290D-04	-0.344713D-04	-0.114694D-04
33	-0.108749D-05	0.623345D-05	-0.420032D-04	0.265209D-04	-0.690616D-05
34	-0.937185D-05	-0.144500D-04	0.921708D-05	0.754493D-04	0.191113D-04
35	0.261785D-04	0.171226D-04	-0.683531D-04	-0.648787D-04	0.350576D-05
36	-0.729541D-04	-0.364474D-04	0.135248D-04	0.178141D-03	0.118058D-03
37	-0.313811D-04	0.854813D-04	-0.266742D-04	0.294812D-03	0.290768D-03
38	0.468117D-05	0.541438D-05	0.144916D-04	0.604184D-04	-0.115320D-04
39	-0.211752D-05	0.990317D-05	0.471781D-06	0.273120D-05	0.158670D-04
40	0.153319D-04	0.423260D-05	-0.146330D-04	0.312743D-05	-0.385494D-04
41	-0.307704D-04	-0.133610D-04	-0.214811D-04	-0.133001D-04	0.853221D-04
42	-0.255723D-05	0.339023D-04	0.833233D-05	0.230010D-03	0.243154D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881818D-03				
7	-0.578541D-05	0.258388D-02			
8	-0.156271D-04	-0.561939D-03	0.900730D-02		
9	0.563992D-05	0.813226D-04	0.459394D-03	0.150354D-02	
10	-0.128222D-05	0.653451D-05	-0.235461D-03	0.155128D-03	0.350930D-02
11	-0.156568D-04	-0.275069D-03	-0.123550D-03	0.460558D-04	-0.288397D-03
12	0.175116D-04	-0.743550D-05	0.436517D-03	-0.178985D-03	0.317185D-03
13	-0.161022D-04	0.758579D-04	0.102698D-04	0.681499D-05	-0.212120D-04
14	0.166971D-04	0.262200D-04	-0.397984D-04	0.432071D-05	0.228677D-04
15	0.692786D-05	-0.814899D-05	-0.165013D-04	0.137199D-04	0.358294D-04
16	-0.201800D-04	0.444488D-05	0.693483D-05	0.112135D-04	0.354931D-05
17	-0.197663D-04	0.230240D-05	-0.232152D-04	-0.962987D-05	0.544129D-05
18	-0.428532D-04	0.547064D-04	-0.623263D-04	-0.165672D-04	0.353136D-04
19	0.116598D-04	-0.142715D-04	-0.538397D-05	-0.564978D-06	-0.257965D-04
20	0.330779D-05	-0.975228D-05	0.668216D-04	0.629829D-05	-0.117808D-04
21	0.471631D-05	0.499411D-05	-0.144901D-03	-0.298993D-04	0.110150D-04
22	-0.325239D-04	0.168366D-04	0.620622D-04	-0.392007D-05	-0.252035D-04
23	-0.407865D-05	-0.100863D-04	0.730802D-05	-0.172208D-04	-0.307401D-04
24	-0.330584D-05	0.121077D-04	-0.264893D-04	0.188989D-04	0.153268D-04
25	-0.215178D-04	0.285042D-04	-0.139330D-03	-0.204947D-04	-0.502911D-04
26	-0.221780D-05	0.282388D-04	0.981949D-04	0.416605D-04	0.273747D-05
27	-0.133000D-04	0.117231D-03	0.488424D-04	0.543903D-04	0.820411D-04
28	0.255060D-04	-0.173069D-04	-0.813182D-04	0.310221D-04	0.523601D-04
29	-0.447372D-05	0.189739D-04	-0.497017D-04	0.388928D-05	-0.163806D-04
30	-0.523529D-05	0.406021D-05	0.117621D-03	0.288970D-05	0.813347D-04
31	0.261951D-05	-0.130218D-04	-0.114960D-03	-0.204428D-04	0.106671D-04
32	-0.580432D-05	0.228842D-04	-0.134131D-03	-0.359473D-04	0.329017D-05
33	0.387279D-04	0.520010D-04	0.118981D-03	0.172875D-04	0.119314D-04
34	-0.495298D-04	0.286637D-04	-0.176773D-03	-0.148143D-03	-0.285421D-04
35	-0.419752D-05	0.534776D-04	0.523040D-04	0.608369D-04	-0.115353D-04
36	-0.120692D-03	0.260084D-03	0.104291D-02	-0.788241D-04	-0.380417D-03
37	-0.659904D-04	0.185062D-03	0.114929D-02	0.962151D-04	-0.446792D-03
38	0.297510D-04	0.841953D-04	0.288887D-03	0.128320D-03	0.553261D-04
39	0.720392D-05	-0.371980D-04	-0.344942D-04	0.103095D-04	0.242470D-05
40	-0.427405D-05	0.299451D-04	0.888588D-04	0.883166D-05	-0.204930D-04
41	-0.447229D-04	-0.139533D-04	-0.308375D-04	-0.413135D-04	-0.271844D-04
42	-0.853137D-04	-0.583688D-05	0.115237D-04	0.103185D-03	-0.546519D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.161158D-02				
12	0.302937D-03	0.184579D-02			
13	-0.333882D-05	-0.181314D-04	0.887203D-03		
14	0.108495D-04	0.287017D-04	0.144168D-03	0.209517D-03	
15	-0.400411D-05	0.320134D-05	0.245882D-04	0.632896D-04	0.178540D-03
16	0.778415D-05	-0.380072D-04	-0.152795D-03	-0.702363D-04	-0.312474D-04
17	0.398044D-04	-0.174851D-04	-0.515465D-04	-0.385931D-04	-0.503970D-04
18	-0.479642D-04	0.956121D-04	0.342412D-04	0.115829D-04	-0.743436D-05
19	-0.208298D-04	0.927271D-05	0.671993D-04	0.296124D-04	0.604346D-05
20	-0.325044D-04	-0.661685D-05	0.115442D-04	0.103524D-04	0.370391D-04
21	0.304416D-04	0.116278D-04	-0.192582D-04	-0.531529D-05	-0.923290D-05
22	0.172695D-05	0.845336D-05	0.110005D-04	-0.118893D-04	0.892717D-05
23	0.109350D-04	0.418754D-04	0.167284D-03	0.404970D-04	0.601199D-05
24	-0.240241D-04	0.121050D-04	0.306065D-04	0.384780D-04	0.344864D-04
25	0.345648D-04	-0.329399D-04	-0.228235D-04	-0.347875D-04	-0.407283D-05
26	-0.392725D-05	0.178142D-04	0.650927D-05	0.160553D-05	0.119161D-04
27	0.437516D-04	0.809063D-04	0.386216D-04	-0.102869D-04	-0.152035D-04
28	-0.104864D-04	-0.207003D-04	-0.849150D-04	-0.497665D-04	-0.142780D-04
29	0.348659D-04	0.217049D-04	-0.125976D-04	-0.204254D-04	-0.363760D-04
30	0.417510D-06	-0.574673D-07	0.759248D-04	0.268147D-04	0.103357D-04
31	0.295505D-05	0.446685D-06	-0.110000D-04	-0.694664D-05	-0.112200D-04
32	-0.969991D-05	0.207903D-04	0.792511D-05	-0.177103D-04	-0.679923D-06
33	0.845626D-06	0.345522D-05	0.344622D-04	0.562352D-05	0.132042D-05
34	-0.428275D-05	-0.421241D-05	0.449452D-05	0.644652D-05	0.224759D-04
35	-0.182040D-04	0.876921D-04	-0.388785D-04	-0.373261D-04	-0.490661D-04
36	-0.245269D-03	0.697305D-04	0.365714D-04	-0.199297D-04	0.118815D-04
37	-0.135235D-03	0.360563D-03	0.128181D-03	0.248733D-04	0.299805D-04
38	0.129684D-03	0.902621D-04	0.874277D-04	0.487928D-04	0.130069D-04
39	0.424634D-04	0.188495D-04	-0.231895D-04	0.624119D-05	0.201012D-04
40	-0.211146D-04	-0.269459D-04	0.411600D-04	0.180852D-04	-0.441162D-05
41	-0.491559D-04	0.139317D-04	-0.238129D-04	-0.118816D-04	0.700994D-05
42	-0.202138D-03	0.242572D-03	0.122234D-03	-0.106479D-04	-0.686529D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769023D-03				
17	0.156220D-03	0.354735D-03			
18	-0.227033D-03	-0.189496D-03	0.243851D-02		
19	-0.865755D-04	-0.203839D-04	0.315684D-04	0.382768D-03	



20	-0.222579D-04	-0.469605D-04	-0.745564D-05	0.626890D-04	0.180145D-03
21	0.291711D-04	0.785635D-04	-0.291510D-03	-0.493614D-04	-0.695887D-04
22	-0.111506D-04	-0.191057D-04	0.505279D-04	0.403942D-04	0.785291D-04
23	-0.105874D-03	-0.310519D-04	0.594953D-04	0.140422D-03	0.267940D-04
24	-0.243760D-04	-0.662525D-04	0.113869D-04	0.237718D-04	0.630437D-04
25	0.126729D-03	0.658481D-04	-0.445683D-03	-0.697037D-06	-0.137481D-04
26	-0.290299D-05	-0.194880D-04	0.621654D-04	0.585994D-04	0.497118D-04
27	-0.685374D-05	-0.268158D-04	0.178435D-03	0.227626D-04	0.209103D-04
28	0.981788D-04	0.245375D-04	-0.700843D-04	-0.123493D-03	-0.325835D-04
29	0.251583D-04	0.505806D-04	0.575691D-05	-0.167924D-04	-0.546241D-04
30	-0.612891D-04	-0.711088D-04	0.278648D-03	0.387184D-04	0.125651D-04
31	0.719329D-05	0.232516D-04	-0.154680D-05	-0.352416D-04	-0.495727D-04
32	0.706190D-05	0.326913D-05	-0.324011D-04	-0.122235D-04	-0.576785D-05
33	-0.293562D-05	-0.142432D-04	-0.379930D-04	-0.542256D-07	0.177153D-04
34	0.463216D-04	-0.560077D-04	0.124092D-03	0.413382D-04	-0.163250D-06
35	0.119098D-05	0.780854D-04	-0.611796D-04	-0.231919D-04	-0.322494D-04
36	0.179443D-03	0.183297D-03	-0.185851D-03	0.398342D-04	0.561458D-04
37	0.845966D-04	0.878890D-04	-0.116349D-03	0.221645D-04	0.134803D-03
38	-0.328610D-04	-0.158439D-04	0.107532D-03	0.175739D-05	0.403514D-05
39	-0.773914D-05	-0.295857D-04	0.129103D-04	-0.273920D-04	-0.232139D-04
40	-0.186220D-04	0.187971D-05	0.214567D-04	0.276973D-04	0.129941D-04
41	0.193630D-04	-0.296199D-05	-0.964260D-04	-0.347404D-04	-0.171330D-04
42	0.855706D-04	0.113520D-03	-0.190330D-03	0.708810D-04	0.875948D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679763D-03				
22	-0.137480D-03	0.652675D-03			
23	-0.300008D-04	0.352269D-04	0.732779D-03		
24	-0.239364D-04	0.149473D-04	0.119152D-03	0.338056D-03	
25	0.221868D-03	-0.480911D-04	-0.103083D-03	-0.980351D-04	0.129239D-02
26	-0.139735D-03	0.196813D-03	0.696429D-04	0.830331D-04	-0.137377D-03
27	-0.645420D-04	0.875112D-04	0.222553D-03	0.134558D-03	-0.394987D-03
28	0.286525D-04	-0.260079D-04	-0.206203D-03	-0.374963D-04	0.515302D-04
29	0.958080D-05	-0.238873D-04	-0.251859D-04	-0.784263D-04	0.282819D-04
30	-0.168756D-03	0.559358D-04	0.104494D-03	0.317068D-04	-0.300929D-03
31	0.801572D-04	-0.186278D-03	-0.155612D-04	-0.182870D-04	0.401996D-04
32	0.216876D-04	-0.449318D-04	-0.836151D-04	-0.752821D-04	0.166215D-03
33	-0.190499D-04	0.252375D-04	0.296101D-04	0.414061D-04	-0.418953D-04
34	-0.929585D-04	0.366244D-04	-0.270224D-04	0.253256D-04	-0.685861D-04
35	0.799979D-04	0.139078D-04	0.257934D-04	-0.154364D-04	-0.304930D-04
36	0.551728D-04	0.617383D-04	-0.189554D-03	0.327306D-04	0.321982D-04

37	0.284151D-04	0.162745D-03	-0.517605D-04	0.314535D-05	0.170799D-04
38	0.174812D-04	0.135392D-04	0.382226D-04	0.143197D-04	0.342967D-05
39	0.244351D-04	0.233685D-04	0.107982D-04	0.207435D-04	-0.901312D-05
40	-0.292339D-05	-0.309727D-04	-0.571076D-05	-0.239880D-04	0.464931D-04
41	0.799358D-05	0.395477D-05	-0.936124D-05	0.238564D-04	-0.268407D-04
42	0.617925D-04	0.653454D-04	-0.229309D-04	0.293786D-04	0.663819D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650042D-03				
27	0.437868D-03	0.241815D-02			
28	-0.322584D-04	-0.687200D-04	0.686017D-03		
29	-0.368514D-04	-0.517779D-04	0.112367D-03	0.287860D-03	
30	0.842621D-04	0.150283D-03	-0.120971D-03	-0.785464D-04	0.112439D-02
31	-0.185725D-03	-0.123267D-03	0.743724D-04	0.729877D-04	-0.167886D-03
32	-0.234912D-03	-0.575809D-03	0.152305D-03	0.920734D-04	-0.231369D-03
33	0.832382D-04	0.153437D-03	-0.160455D-03	-0.131425D-03	0.271585D-03
34	0.319496D-04	-0.191123D-04	0.116788D-04	-0.731433D-06	0.285102D-04
35	0.231558D-04	-0.292501D-04	-0.220769D-04	0.111008D-04	0.129634D-04
36	0.108204D-03	-0.388513D-04	0.280342D-04	-0.184745D-04	-0.134917D-03
37	0.105334D-03	-0.283921D-03	-0.146976D-03	-0.287556D-04	-0.245190D-04
38	-0.360249D-04	-0.183402D-04	-0.543147D-04	-0.111943D-04	0.786283D-04
39	0.227889D-04	0.964838D-05	-0.139721D-04	-0.176100D-04	0.198007D-04
40	-0.289683D-04	-0.586032D-04	0.869431D-05	-0.389333D-05	-0.151144D-04
41	0.531660D-04	0.792157D-04	0.237439D-04	0.245898D-04	-0.328725D-04
42	0.407651D-04	-0.150897D-03	-0.833832D-04	-0.212208D-04	-0.165147D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597737D-03				
32	0.241932D-03	0.115790D-02			
33	-0.349923D-03	-0.537269D-03	0.195420D-02		
34	0.264938D-04	-0.862556D-04	0.239201D-04	0.393977D-02	
35	-0.289242D-04	0.290030D-04	-0.584262D-06	-0.251807D-02	0.499533D-02
36	-0.721495D-04	-0.185374D-04	-0.292864D-03	0.738000D-04	-0.136985D-03
37	-0.175247D-03	-0.108907D-03	0.559835D-04	0.376540D-04	-0.263236D-03
38	0.455754D-05	-0.240458D-04	0.443934D-04	-0.249576D-04	0.301582D-04
39	0.285810D-04	-0.392519D-04	0.316378D-05	-0.953659D-04	0.392639D-04
40	-0.371446D-04	0.360840D-04	0.423977D-04	0.120177D-03	-0.722946D-04
41	0.588565D-04	-0.169737D-04	-0.569866D-04	-0.102482D-03	0.737389D-04

42 -0.103511D-03 -0.159621D-04 -0.109423D-03 0.113979D-03 -0.257916D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.257342D-01				
37	0.163702D-01	0.230273D-01			
38	-0.475416D-03	0.534091D-03	0.162781D-02		
39	-0.674209D-04	0.232548D-04	-0.983552D-05	0.202930D-02	
40	0.131071D-03	-0.215536D-04	-0.474598D-05	-0.123290D-02	0.143881D-02
41	-0.698813D-05	0.229771D-04	-0.693246D-04	0.771142D-03	-0.130200D-02
42	0.166046D-01	0.165489D-01	0.502705D-04	0.483595D-04	0.428982D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.245975D-02	
42	-0.502649D-04	0.169554D-01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.017	-0.040	-0.009	0.014
8	0.028	-0.005	0.025	-0.006	-0.020
9	0.014	0.019	0.031	0.020	0.049
10	-0.007	0.029	0.018	0.007	0.019
11	0.036	0.015	-0.014	-0.014	0.009
12	0.001	0.022	-0.013	0.015	-0.064
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.006	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.023
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.006	-0.014	0.004	0.052	0.009
35	0.015	0.015	-0.029	-0.039	0.002
36	-0.018	-0.014	0.003	0.048	0.022
37	-0.008	0.034	-0.005	0.083	0.058
38	0.005	0.008	0.011	0.064	-0.009
39	-0.002	0.013	0.000	0.003	0.011
40	0.016	0.007	-0.012	0.004	-0.031
41	-0.025	-0.016	-0.013	-0.011	0.052
42	-0.001	0.016	0.002	0.076	0.057

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.006	-0.116	1.000		
9	0.005	0.041	0.125	1.000	
10	-0.001	0.002	-0.042	0.068	1.000
11	-0.013	-0.135	-0.032	0.030	-0.121
12	0.014	-0.003	0.107	-0.107	0.125
13	-0.018	0.050	0.004	0.006	-0.012
14	0.039	0.036	-0.029	0.008	0.027
15	0.017	-0.012	-0.013	0.026	0.045
16	-0.025	0.003	0.003	0.010	0.002
17	-0.035	0.002	-0.013	-0.013	0.005
18	-0.029	0.022	-0.013	-0.009	0.012
19	0.020	-0.014	-0.003	-0.001	-0.022
20	0.008	-0.014	0.052	0.012	-0.015
21	0.006	0.004	-0.059	-0.030	0.007

22	-0.043	0.013	0.026	-0.004	-0.017
23	-0.005	-0.007	0.003	-0.016	-0.019
24	-0.006	0.013	-0.015	0.027	0.014
25	-0.020	0.016	-0.041	-0.015	-0.024
26	-0.003	0.022	0.041	0.042	0.002
27	-0.009	0.047	0.010	0.029	0.028
28	0.033	-0.013	-0.033	0.031	0.034
29	-0.009	0.022	-0.031	0.006	-0.016
30	-0.005	0.002	0.037	0.002	0.041
31	0.004	-0.010	-0.050	-0.022	0.007
32	-0.006	0.013	-0.042	-0.027	0.002
33	0.030	0.023	0.028	0.010	0.005
34	-0.027	0.009	-0.030	-0.061	-0.008
35	-0.002	0.015	0.008	0.022	-0.003
36	-0.025	0.032	0.069	-0.013	-0.040
37	-0.015	0.024	0.080	0.016	-0.050
38	0.025	0.041	0.075	0.082	0.023
39	0.005	-0.016	-0.008	0.006	0.001
40	-0.004	0.016	0.025	0.006	-0.009
41	-0.030	-0.006	-0.007	-0.021	-0.009
42	-0.022	-0.001	0.001	0.020	-0.071

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.176	1.000			
13	-0.003	-0.014	1.000		
14	0.019	0.046	0.334	1.000	
15	-0.007	0.006	0.062	0.327	1.000
16	0.007	-0.032	-0.185	-0.175	-0.084
17	0.053	-0.022	-0.092	-0.142	-0.200
18	-0.024	0.045	0.023	0.016	-0.011
19	-0.027	0.011	0.115	0.105	0.023
20	-0.060	-0.011	0.029	0.053	0.207
21	0.029	0.010	-0.025	-0.014	-0.027
22	0.002	0.008	0.014	-0.032	0.026
23	0.010	0.036	0.207	0.103	0.017
24	-0.033	0.015	0.056	0.145	0.140
25	0.024	-0.021	-0.021	-0.067	-0.008
26	-0.004	0.016	0.009	0.004	0.035
27	0.022	0.038	0.026	-0.014	-0.023
28	-0.010	-0.018	-0.109	-0.131	-0.041

29	0.051	0.030	-0.025	-0.083	-0.160
30	0.000	0.000	0.076	0.055	0.023
31	0.003	0.000	-0.015	-0.020	-0.034
32	-0.007	0.014	0.008	-0.036	-0.001
33	0.000	0.002	0.026	0.009	0.002
34	-0.002	-0.002	0.002	0.007	0.027
35	-0.006	0.029	-0.018	-0.036	-0.052
36	-0.038	0.010	0.008	-0.009	0.006
37	-0.022	0.055	0.028	0.011	0.015
38	0.080	0.052	0.073	0.084	0.024
39	0.023	0.010	-0.017	0.010	0.033
40	-0.014	-0.017	0.036	0.033	-0.009
41	-0.025	0.007	-0.016	-0.017	0.011
42	-0.039	0.043	0.032	-0.006	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.027	-0.047	0.040	0.034	0.000
35	0.001	0.059	-0.018	-0.017	-0.034
36	0.040	0.061	-0.023	0.013	0.026
37	0.020	0.031	-0.016	0.007	0.066
38	-0.029	-0.021	0.054	0.002	0.007
39	-0.006	-0.035	0.006	-0.031	-0.038
40	-0.018	0.003	0.011	0.037	0.026

41	0.014	-0.003	-0.039	-0.036	-0.026
42	0.024	0.046	-0.030	0.028	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.017	0.022	0.025	0.051	-0.026
34	-0.057	0.023	-0.016	0.022	-0.030
35	0.043	0.008	0.013	-0.012	-0.012
36	0.013	0.015	-0.044	0.011	0.006
37	0.007	0.042	-0.013	0.001	0.003
38	0.017	0.013	0.035	0.019	0.002
39	0.021	0.020	0.009	0.025	-0.006
40	-0.003	-0.032	-0.006	-0.034	0.034
41	0.006	0.003	-0.007	0.026	-0.015
42	0.018	0.020	-0.007	0.012	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.020	-0.006	0.007	-0.001	0.014
35	0.013	-0.008	-0.012	0.009	0.005

36	0.026	-0.005	0.007	-0.007	-0.025
37	0.027	-0.038	-0.037	-0.011	-0.005
38	-0.035	-0.009	-0.051	-0.016	0.058
39	0.020	0.004	-0.012	-0.023	0.013
40	-0.030	-0.031	0.009	-0.006	-0.012
41	0.042	0.032	0.018	0.029	-0.020
42	0.012	-0.024	-0.024	-0.010	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.017	-0.040	0.009	1.000	
35	-0.017	0.012	0.000	-0.568	1.000
36	-0.018	-0.003	-0.041	0.007	-0.012
37	-0.047	-0.021	0.008	0.004	-0.025
38	0.005	-0.018	0.025	-0.010	0.011
39	0.026	-0.026	0.002	-0.034	0.012
40	-0.040	0.028	0.025	0.050	-0.027
41	0.049	-0.010	-0.026	-0.033	0.021
42	-0.033	-0.004	-0.019	0.014	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.672	1.000			
38	-0.073	0.087	1.000		
39	-0.009	0.003	-0.005	1.000	
40	0.022	-0.004	-0.003	-0.722	1.000
41	-0.001	0.003	-0.035	0.345	-0.692
42	0.795	0.838	0.010	0.008	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	-0.008	1.000



TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.015	38
300	1.005	13
400	1.004	37
500	1.009	37
600	1.005	38
700	1.002	42
800	1.004	42
900	1.001	42
1000	1.000	20

This is the interaction between latent profile categories and job control on worsening of physical health

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.947	0.947	0.947	0.947	
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.915			
BULLY15	0.915	0.915		
PRESS15	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16

Category 1	0.881	4884.000
Category 2	0.119	662.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	3.225	-0.402	1.000	7.41%	2.000	3.000	3.000
5077.000	1.081	-0.336	5.000	8.49%	4.000	4.000	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.967	0.069	0.000	0.838	1.107	*
BULLY15	0.027	0.048	0.294	-0.069	0.121	
DUTIES15	-0.032	0.027	0.117	-0.086	0.020	
PRESS15	-0.033	0.026	0.105	-0.084	0.019	
KES15	0.230	0.044	0.000	0.142	0.318	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.088	0.008	0.000	-0.103	-0.073	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.085	0.114	*
DUTIES15	-0.106	0.007	0.000	-0.119	-0.091	*
PHY15 WITH						
CHOICE15	-0.033	0.007	0.000	-0.046	-0.019	*
BULLY15	0.012	0.003	0.000	0.005	0.019	*
PRESS15	0.039	0.007	0.000	0.026	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.056	0.007	0.000	-0.069	-0.042	*
PRESS15	-0.076	0.015	0.000	-0.105	-0.047	*
DUTIES15	0.168	0.014	0.000	0.141	0.196	*
BULLY15 WITH						
PRESS15	0.105	0.007	0.000	0.091	0.119	*
DUTIES15	-0.078	0.006	0.000	-0.090	-0.065	*
PRESS15 WITH						
DUTIES15	-0.186	0.014	0.000	-0.212	-0.161	*
Means						
PHY15	0.003	0.007	0.350	-0.010	0.015	

KES15	0.001	0.007	0.423	-0.013	0.017	
BULLY15	0.001	0.007	0.439	-0.013	0.015	
PRESS15	0.001	0.014	0.482	-0.029	0.029	
DUTIES15	-0.001	0.013	0.453	-0.027	0.024	
Variances						
PHY15	0.233	0.005	0.000	0.224	0.243	*
KES15	0.289	0.006	0.000	0.279	0.301	*
CHOICE15	1.040	0.022	0.000	1.000	1.082	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.003	0.020	0.000	0.965	1.044	*
DUTIES15	0.861	0.017	0.000	0.828	0.896	*
Between Level						
S1	ON					
CLU2		0.114	0.090	0.088	-0.058	0.290
CLU3		0.024	0.084	0.373	-0.136	0.192
PHYCAT16	ON					
CLU2		-0.183	0.100	0.021	-0.402	-0.008 *
CLU3		-0.009	0.093	0.461	-0.197	0.171
CHOICE15		-0.114	0.171	0.228	-0.462	0.219
CHOICE15	WITH					
CLU2		0.022	0.018	0.094	-0.012	0.062
CLU3		-0.014	0.019	0.207	-0.055	0.023
CLU2	WITH					
CLU3		-0.137	0.038	0.000	-0.228	-0.079 *
Means						
CLU2		0.309	0.064	0.000	0.182	0.440 *
CLU3		0.447	0.069	0.000	0.306	0.579 *
CHOICE15		3.309	0.038	0.000	3.235	3.387 *
Intercepts						
S1		-0.111	0.072	0.057	-0.250	0.041
Thresholds						
PHYCAT16\$1		0.902	0.565	0.055	-0.263	2.022
Variances						
CLU2		0.230	0.044	0.000	0.163	0.334 *

CLU3	0.262	0.052	0.000	0.189	0.391	*
CHOICE15	0.060	0.013	0.000	0.040	0.092	*
Residual Variances						
PHYCAT16	0.016	0.013	0.000	0.002	0.052	*
S1	0.004	0.006	0.000	0.000	0.020	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON						
CHOICE15	-0.056	0.027	0.022	-0.108	-0.002	*
PHYCAT16 ON						
PHY15	0.414	0.024	0.000	0.365	0.461	*
BULLY15	0.011	0.021	0.302	-0.032	0.053	
DUTIES15	-0.026	0.023	0.124	-0.071	0.018	
PRESS15	-0.029	0.023	0.107	-0.074	0.017	
KES15	0.109	0.021	0.000	0.067	0.150	*
KES15 WITH						
PHY15	0.198	0.014	0.000	0.171	0.225	*
CHOICE15	-0.160	0.014	0.000	-0.188	-0.134	*
BULLY15	0.219	0.013	0.000	0.192	0.244	*
PRESS15	0.186	0.013	0.000	0.159	0.212	*
DUTIES15	-0.212	0.013	0.000	-0.237	-0.186	*
PHY15 WITH						
CHOICE15	-0.066	0.014	0.000	-0.093	-0.038	*
BULLY15	0.050	0.014	0.000	0.021	0.078	*
PRESS15	0.080	0.014	0.000	0.052	0.106	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.054	*
CHOICE15 WITH						
BULLY15	-0.112	0.014	0.000	-0.139	-0.084	*
PRESS15	-0.075	0.014	0.000	-0.101	-0.047	*

DUTIES15	0.178	0.014	0.000	0.150	0.205	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.188	0.240	*
DUTIES15	-0.171	0.013	0.000	-0.198	-0.144	*
PRESS15 WITH						
DUTIES15	-0.200	0.014	0.000	-0.227	-0.173	*
Means						
PHY15	0.005	0.014	0.367	-0.022	0.031	
KES15	0.002	0.014	0.424	-0.025	0.030	
BULLY15	0.001	0.014	0.458	-0.026	0.029	
PRESS15	0.001	0.014	0.485	-0.028	0.028	
DUTIES15	-0.002	0.014	0.450	-0.029	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	0.651	0.407	0.088	-0.326	1.187	
CLU3	0.143	0.455	0.373	-0.811	0.913	
PHYCAT16 ON						
CLU2	-0.534	0.246	0.021	-0.975	-0.030	*
CLU3	-0.029	0.277	0.461	-0.555	0.547	
CHOICE15	-0.170	0.239	0.228	-0.601	0.337	
CHOICE15 WITH						
CLU2	0.196	0.141	0.094	-0.108	0.457	
CLU3	-0.119	0.143	0.207	-0.392	0.166	
CLU2 WITH						
CLU3	-0.565	0.086	0.000	-0.718	-0.377	*
Means						
CLU2	0.649	0.143	0.000	0.364	0.924	*



CLU3	0.878	0.156	0.000	0.558	1.166	*
CHOICE15	13.456	1.456	0.000	10.959	16.608	*
Intercepts						
S1	-1.268	0.833	0.057	-2.888	0.411	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.556	0.190	0.000	0.158	0.893	*
S1	0.514	0.274	0.000	0.021	0.971	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.220	0.021	0.000	0.180	0.264

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.444	0.190	0.000	0.107	0.842

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.486	0.274	0.000	0.029	0.979

#### TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
PHYCAT16      0                      0                      0                      0  
PHY15                      0                      0                      0                      0  
KES15                      0                      0                      0                      0  
CHOICE15                      0                      0                      0                      0  
BULLY15                      0                      0                      0                      0  
PRESS15                      0                      0                      0                      0  
DUTIES15                      0                      0                      0                      0

LAMBDA  
PRESS15      DUTIES15  
\_\_\_\_\_  
PHYCAT16      0                      0  
PHY15                      0                      0  
KES15                      0                      0  
CHOICE15                      0                      0  
BULLY15                      0                      0  
PRESS15                      0                      0  
DUTIES15                      0                      0

THETA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
PRESS15	<u>          </u>	DUTIES15
PRESS15	<u>0</u>	<u>          </u>
DUTIES15	0	0

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>3</u>	

ALPHA		
PRESS15	<u>          </u>	DUTIES15
	<u>4</u>	<u>5</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>0</u>	<u>8</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15	<u>          </u>	DUTIES15
	<u>          </u>	<u>          </u>

PHYCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
PHYCAT16	
<hr/>	
49	

NU			
PHYCAT16	CLU2	CLU3	CHOICE15
<hr/>	<hr/>	<hr/>	<hr/>
0	0	0	0

LAMBDA

	S1	PHYCAT16	CLU2	CLU3	CHOICE15
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
CHOICE15	0	0	0	0	0

THETA					
	PHYCAT16	CLU2	CLU3	CHOICE15	
PHYCAT16	0				
CLU2	0	0			
CLU3	0	0	0		
CHOICE15	0	0	0	0	

ALPHA					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
	32	0	33	34	35

BETA					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
S1	0	36	37	0	
PHYCAT16	0	38	39	40	
CLU2	0	0	0	0	
CLU3	0	0	0	0	
CHOICE15	0	0	0	0	

PSI					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
S1	41				
PHYCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
CHOICE15	0	0	46	47	48

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

LAMBDA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	
PRESS15	0.000		
DUTIES15	0.000	0.000	

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA			
	PRESS15	DUTIES15	
	0.000	0.000	

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU	
	PHYCAT16
	1.110

NU			
PHYCAT16	CLU2	CLU3	CHOICE15
<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000



LAMBDA					
	S1	PHYCAT16	CLU2	CLU3	CHOICE15
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	1.000

THETA				
	PHYCAT16	CLU2	CLU3	CHOICE15
PHYCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
CHOICE15	0.000	0.000	0.000	0.000

ALPHA					
	S1	PHYCAT16	CLU2	CLU3	CHOICE15
	0.000	0.000	0.406	0.471	3.225

BETA					
	S1	PHYCAT16	CLU2	CLU3	CHOICE15
S1	0.000	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000

PSI					
	S1	PHYCAT16	CLU2	CLU3	CHOICE15
S1	1.000				
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.121		
CLU3	0.000	0.000	0.000	0.125	
CHOICE15	0.000	0.000	0.000	0.000	0.541

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361

Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.434429D-04				
2	0.106561D-04	0.558506D-04			
3	0.322561D-05	0.957834D-05	0.475830D-04		
4	0.511760D-05	0.199604D-04	0.216983D-04	0.210026D-03	
5	-0.115213D-04	-0.244846D-04	-0.171767D-04	-0.435383D-04	0.168971D-03
6	0.114384D-04	0.425869D-05	-0.171162D-04	-0.396122D-04	0.282740D-04
7	-0.133981D-04	0.610001D-05	-0.393813D-05	0.105584D-04	-0.221056D-04
8	0.606868D-05	-0.138659D-04	-0.207043D-05	-0.269538D-04	0.205561D-04
9	-0.204784D-05	-0.366864D-05	0.486362D-05	0.126012D-04	0.258732D-05
10	0.981217D-07	-0.575342D-05	0.102316D-05	-0.103084D-04	0.430624D-05
11	0.363127D-07	-0.543075D-06	0.122679D-05	-0.139087D-05	0.345273D-06
12	-0.829661D-06	-0.335523D-07	-0.644487D-06	-0.937016D-06	0.645191D-07
13	0.857947D-06	0.111936D-05	-0.220497D-05	-0.284349D-05	0.965544D-06
14	0.575207D-06	-0.128881D-05	-0.361371D-06	-0.162692D-05	-0.189812D-05
15	0.959326D-06	0.137064D-05	0.349147D-05	0.587775D-05	-0.389959D-05
16	-0.170135D-05	0.135272D-05	-0.339106D-05	-0.402687D-05	0.866083D-05
17	-0.165321D-05	-0.357309D-06	-0.227988D-06	-0.225894D-06	0.817956D-06
18	-0.726742D-06	0.980497D-06	-0.919468D-06	0.779635D-06	0.746674D-06
19	-0.629099D-06	0.171877D-06	0.718109D-06	0.349363D-05	-0.815010D-06
20	-0.486297D-06	-0.149074D-06	0.812824D-06	-0.184134D-05	0.658910D-06
21	0.618465D-06	0.767540D-06	-0.632784D-06	-0.542932D-06	0.844133D-07
22	-0.100515D-05	0.283033D-06	-0.109200D-05	-0.383076D-05	-0.242897D-05
23	0.199487D-05	-0.174669D-05	-0.313399D-06	0.683436D-05	-0.163441D-05
24	0.120126D-05	0.488534D-06	0.139467D-05	0.329752D-05	-0.121695D-05
25	-0.299815D-05	0.240250D-05	-0.925155D-07	0.957231D-05	-0.280449D-05
26	0.146097D-05	-0.233143D-05	0.771676D-06	0.219424D-05	0.155633D-05
27	-0.401515D-06	-0.667190D-06	0.909694D-06	0.450256D-05	0.190645D-06

28	-0.353818D-06	0.267312D-05	-0.110713D-05	-0.506245D-05	-0.968306D-06
29	0.681250D-06	-0.192278D-06	0.546035D-06	-0.693260D-06	-0.192769D-06
30	0.162253D-05	-0.309402D-05	-0.897080D-06	-0.247052D-05	0.991175D-06
31	-0.588106D-05	0.234678D-06	0.715779D-06	-0.270099D-05	-0.142525D-05
32	0.464524D-05	0.136873D-05	0.661518D-05	0.225028D-04	0.194437D-04
33	-0.771442D-05	-0.361691D-05	-0.168221D-04	-0.594447D-05	-0.121397D-04
34	0.562445D-05	0.520910D-05	0.168861D-04	-0.311030D-07	0.139563D-04
35	-0.554414D-05	-0.204858D-04	-0.123613D-04	-0.732210D-06	0.255754D-04
36	-0.177351D-04	0.284787D-05	-0.955285D-05	-0.151219D-04	-0.126466D-04
37	-0.123603D-05	0.676946D-05	-0.860612D-05	-0.209328D-04	-0.128776D-04
38	-0.142927D-04	-0.372494D-04	0.143441D-04	-0.256435D-04	0.184075D-04
39	-0.148483D-05	-0.595880D-05	-0.550538D-05	-0.483740D-05	0.254931D-04
40	0.188965D-04	0.666163D-05	-0.136118D-04	-0.391518D-04	0.171205D-04
41	-0.117945D-05	-0.206131D-05	-0.474785D-06	0.664483D-06	0.231472D-05
42	0.120914D-05	0.208284D-05	-0.645324D-06	-0.297441D-06	0.494187D-05
43	-0.349285D-05	-0.155965D-04	0.400530D-05	0.310080D-04	0.231821D-04
44	0.426801D-05	0.109198D-04	0.560534D-06	-0.223910D-04	-0.234172D-04
45	-0.579726D-05	-0.944305D-05	-0.780101D-05	-0.810064D-05	0.396856D-04
46	-0.209210D-06	-0.484970D-05	-0.577011D-05	0.129493D-04	0.470220D-05
47	-0.680588D-06	0.654249D-05	0.644963D-05	-0.108316D-04	-0.130898D-05
48	0.374948D-05	-0.502258D-06	-0.268506D-06	-0.658595D-06	-0.729711D-05
49	0.641526D-04	0.165991D-05	-0.487739D-04	-0.163443D-03	0.874018D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.475899D-02				
7	-0.268059D-03	0.192603D-02			
8	-0.860021D-05	-0.398906D-03	0.228693D-02		
9	-0.103387D-03	-0.113919D-03	-0.209002D-03	0.690155D-03	
10	-0.730854D-05	0.113746D-03	0.113011D-03	0.918343D-04	0.737939D-03
11	-0.234381D-05	-0.509760D-05	0.236245D-05	0.855807D-06	-0.652484D-06
12	-0.583427D-05	0.442469D-05	-0.584020D-05	-0.195228D-05	0.807558D-07
13	-0.146319D-05	0.122220D-05	0.123903D-04	0.413471D-06	-0.303322D-05
14	0.346353D-06	-0.165666D-04	0.767917D-05	-0.386905D-06	-0.727595D-05
15	-0.207013D-05	-0.123836D-04	0.536652D-05	-0.844039D-06	0.676563D-05
16	-0.227417D-04	-0.492433D-05	0.186341D-04	-0.192394D-05	0.590584D-05
17	-0.345093D-05	0.199721D-05	0.509740D-05	-0.217355D-05	0.417673D-05
18	0.990074D-07	0.204079D-05	-0.322864D-05	-0.293596D-05	-0.606992D-05
19	0.100027D-05	-0.742007D-05	-0.102001D-04	0.194197D-06	-0.795987D-06
20	-0.457088D-07	-0.335124D-05	0.281871D-05	-0.516676D-05	0.132318D-05
21	0.139978D-04	0.242500D-05	-0.576259D-05	0.526154D-05	0.668602D-05
22	-0.778290D-05	0.552419D-06	0.250312D-05	-0.418415D-05	-0.650934D-05

23	0.694643D-06	-0.140703D-04	-0.438366D-05	-0.292060D-05	-0.143177D-04
24	-0.209941D-04	0.137627D-04	-0.830175D-05	0.595974D-05	0.408666D-05
25	-0.480343D-04	0.103704D-04	0.388823D-04	0.214210D-04	0.797682D-05
26	-0.249499D-04	-0.489476D-05	0.725687D-05	-0.288494D-05	-0.359583D-05
27	0.656884D-05	-0.810705D-05	0.334170D-05	0.110296D-05	0.856337D-06
28	-0.277897D-05	0.271507D-04	-0.665388D-05	0.208581D-05	0.482798D-05
29	0.534693D-05	-0.126220D-04	0.185699D-05	0.793479D-05	0.447681D-05
30	0.249319D-04	-0.130675D-04	0.479142D-05	-0.119878D-05	0.393902D-05
31	-0.167321D-04	0.549103D-05	-0.233157D-04	-0.123280D-04	-0.146275D-04
32	0.281184D-04	0.285687D-04	0.933721D-04	0.301593D-04	-0.109298D-03
33	0.418024D-05	0.677450D-04	-0.715895D-04	-0.590715D-04	-0.273030D-04
34	0.269712D-04	-0.747668D-04	0.453678D-04	-0.176861D-05	0.577046D-05
35	-0.119457D-04	-0.298790D-05	-0.725480D-04	0.218514D-04	0.286296D-06
36	-0.305874D-04	0.617891D-05	-0.941853D-04	-0.157487D-04	0.272773D-04
37	-0.419983D-04	0.118918D-03	0.294984D-04	0.329191D-04	0.627174D-04
38	-0.111205D-03	-0.224473D-04	-0.194296D-03	-0.174462D-03	-0.197170D-04
39	-0.247040D-05	-0.103460D-03	0.123046D-05	-0.850890D-04	0.757018D-04
40	-0.272134D-03	-0.295820D-04	0.742130D-04	0.198967D-03	-0.345055D-04
41	0.754672D-05	0.595485D-05	-0.307179D-05	-0.363924D-05	0.360707D-05
42	0.341843D-04	-0.119618D-04	-0.209778D-04	0.300587D-04	0.646866D-05
43	-0.136360D-03	0.421049D-04	-0.255618D-04	0.331689D-04	0.328100D-04
44	0.328643D-04	-0.714747D-04	0.768247D-04	-0.294822D-04	-0.999927D-05
45	0.316702D-04	0.562587D-04	-0.113856D-03	0.401918D-04	-0.102023D-04
46	0.503278D-05	0.159555D-04	0.325486D-04	-0.436586D-05	-0.642864D-06
47	-0.113564D-04	-0.458238D-04	-0.283344D-04	-0.890064D-05	0.580611D-05
48	0.245187D-05	0.185881D-04	0.157324D-04	-0.314276D-05	-0.100430D-04
49	0.113378D-03	-0.509405D-04	0.152121D-03	0.499894D-03	-0.105418D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.211882D-04				
12	0.587197D-05	0.143751D-04			
13	0.125085D-05	0.625247D-05	0.320625D-04		
14	-0.279493D-05	-0.466583D-05	-0.172369D-05	0.482169D-04	
15	0.458484D-06	-0.243658D-05	-0.100474D-04	0.138808D-04	0.596507D-04
16	-0.207164D-05	-0.712106D-06	0.532754D-05	-0.138009D-04	-0.446239D-04
17	0.171775D-05	0.302984D-05	0.116936D-05	-0.303776D-05	-0.127747D-05
18	0.836280D-06	0.983850D-06	0.576541D-05	-0.222545D-05	-0.463918D-05
19	-0.124231D-05	-0.342252D-06	-0.181990D-05	0.456158D-05	0.146606D-04
20	0.242330D-05	0.116398D-05	0.122854D-05	-0.179041D-05	-0.254188D-05
21	0.308816D-05	0.528591D-05	0.137114D-05	-0.453820D-05	0.139678D-06
22	0.215504D-06	0.260354D-05	0.111885D-04	-0.133320D-06	-0.576288D-05

23	-0.538261D-06	-0.296208D-05	-0.955811D-06	0.871270D-05	0.238670D-04
24	0.664573D-06	0.526826D-06	0.193699D-05	-0.688082D-06	-0.181382D-05
25	-0.915658D-06	-0.195857D-05	0.975709D-06	-0.290237D-06	0.301520D-05
26	-0.305763D-05	-0.580182D-05	-0.328383D-05	0.883734D-05	0.265576D-05
27	-0.565906D-06	-0.314109D-05	-0.101837D-04	0.472040D-06	0.115906D-04
28	0.151654D-05	0.105600D-06	0.215208D-05	-0.976191D-05	-0.241109D-04
29	-0.145748D-05	-0.742369D-06	-0.100375D-05	0.162882D-05	0.348783D-05
30	-0.258978D-06	-0.218816D-05	-0.181584D-05	0.677615D-06	0.217721D-05
31	-0.635343D-07	-0.131512D-06	0.255242D-05	0.115824D-05	-0.826341D-05
32	-0.974829D-05	0.228843D-06	-0.128230D-05	0.608545D-05	-0.825256D-05
33	0.850041D-06	-0.251313D-05	-0.845830D-05	-0.518074D-05	-0.222697D-04
34	-0.175100D-04	0.359097D-05	-0.611811D-06	-0.575934D-05	0.131361D-04
35	-0.220777D-05	-0.105894D-05	0.923260D-05	0.223102D-05	-0.607284D-05
36	0.906816D-05	-0.676398D-05	-0.707441D-05	0.675083D-05	0.291747D-04
37	0.203747D-04	0.100158D-06	0.768055D-05	-0.132115D-04	0.699413D-05
38	0.593960D-05	-0.957164D-05	0.317228D-04	-0.781204D-05	-0.198420D-04
39	0.401746D-05	-0.119366D-04	0.117306D-04	0.555477D-05	0.240832D-05
40	-0.765756D-05	0.203023D-06	0.343357D-04	-0.167092D-04	-0.227220D-04
41	0.918661D-06	0.966418D-07	0.357444D-06	-0.394365D-06	0.952654D-06
42	-0.128786D-05	-0.184195D-05	0.308823D-06	0.120124D-05	0.319162D-05
43	0.919823D-05	-0.908448D-06	-0.519156D-05	-0.155896D-05	-0.486460D-06
44	-0.461772D-05	0.150716D-05	0.274218D-05	0.996973D-05	0.677305D-05
45	0.454335D-05	0.631326D-06	-0.441163D-05	-0.149896D-04	-0.214645D-04
46	0.120509D-05	-0.112496D-05	0.246779D-05	0.319246D-05	0.516126D-05
47	0.278341D-05	0.134003D-05	-0.122017D-06	0.134430D-05	-0.240065D-05
48	0.125573D-06	-0.118575D-05	0.138053D-05	-0.703999D-06	0.229163D-05
49	-0.262503D-04	-0.105138D-04	0.130111D-03	-0.526599D-04	-0.857082D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.462428D-03				
17	0.693813D-06	0.114577D-04			
18	0.590295D-05	0.273264D-05	0.136780D-04		
19	-0.257068D-04	-0.173801D-05	-0.564120D-05	0.500288D-04	
20	-0.112715D-05	0.155809D-05	0.505351D-05	-0.557446D-05	0.233577D-04
21	-0.224300D-05	0.582126D-05	0.136941D-05	-0.743053D-06	0.946819D-06
22	0.872142D-05	0.170888D-05	0.540474D-05	-0.381646D-05	0.203427D-05
23	-0.444785D-04	-0.177227D-05	-0.301819D-05	0.263897D-04	-0.441748D-05
24	0.842178D-05	0.234110D-05	0.546676D-05	-0.515357D-05	0.107401D-04
25	0.191261D-04	-0.121033D-05	0.275337D-05	-0.239305D-05	0.208894D-05
26	0.313387D-06	-0.401063D-05	-0.122871D-05	0.961836D-06	-0.147648D-05
27	-0.867413D-05	-0.754057D-06	-0.398837D-05	0.382274D-05	-0.148438D-05

28	0.702213D-04	-0.512379D-06	0.181403D-05	-0.206245D-04	0.124166D-05
29	-0.556384D-05	-0.175868D-05	-0.580471D-05	0.786167D-05	-0.707335D-05
30	-0.140158D-04	-0.156544D-05	-0.820602D-06	0.410818D-07	-0.836975D-06
31	0.466150D-05	0.137701D-05	0.183623D-05	-0.767320D-05	0.219097D-05
32	0.383562D-04	-0.642165D-05	0.745001D-07	-0.109241D-04	0.142929D-04
33	-0.611206D-05	0.392192D-05	-0.585051D-05	-0.650479D-05	0.249301D-04
34	0.178890D-04	-0.137731D-05	-0.827746D-05	0.158834D-04	-0.193491D-04
35	-0.811967D-05	0.152557D-05	0.398672D-05	-0.541664D-06	0.707080D-06
36	-0.569838D-04	-0.368345D-05	-0.943757D-06	0.389147D-05	-0.809955D-05
37	-0.557451D-04	0.142231D-05	0.170401D-05	0.811538D-05	-0.139366D-04
38	-0.449327D-04	-0.949706D-05	-0.366661D-05	0.931849D-05	0.571215D-05
39	0.246687D-05	0.103937D-04	-0.127240D-04	0.424139D-05	-0.113341D-04
40	0.440699D-05	0.164442D-04	0.194179D-04	0.676753D-05	-0.146658D-04
41	0.275772D-05	-0.512222D-06	0.119099D-05	0.926416D-06	0.103369D-05
42	0.816317D-06	0.361855D-06	0.100737D-05	-0.302074D-05	-0.113114D-06
43	0.489339D-04	-0.311309D-06	-0.927395D-07	0.338574D-05	-0.447271D-05
44	-0.182576D-04	0.267379D-05	-0.324080D-05	0.625909D-06	0.447513D-05
45	0.191614D-05	-0.330223D-05	0.496076D-06	-0.415322D-05	-0.831969D-05
46	-0.603319D-05	-0.614050D-06	0.220713D-05	-0.519942D-05	0.154093D-05
47	-0.681762D-05	0.318039D-05	0.120302D-05	-0.754355D-06	-0.417991D-05
48	-0.175348D-04	0.736218D-06	-0.250360D-06	-0.101679D-05	0.280972D-05
49	-0.605522D-05	0.553668D-04	0.619922D-04	0.162642D-04	-0.501447D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.464732D-04				
22	0.100815D-04	0.564919D-04			
23	-0.864080D-05	-0.176853D-04	0.216997D-03		
24	0.265574D-05	0.116840D-04	-0.161068D-04	0.502662D-04	
25	0.990806D-05	0.368172D-04	-0.331884D-04	0.461987D-04	0.408254D-03
26	-0.937051D-05	-0.221042D-05	0.228645D-05	0.270823D-06	0.799438D-06
27	-0.338544D-05	-0.109145D-04	0.571006D-05	-0.137687D-05	-0.199546D-05
28	-0.101158D-05	0.223036D-05	-0.445947D-04	0.339804D-05	0.488534D-05
29	-0.243254D-05	-0.403618D-05	0.554998D-05	-0.913199D-05	-0.827655D-05
30	-0.815161D-05	-0.217219D-04	0.380663D-04	-0.195512D-04	-0.788173D-04
31	-0.277209D-06	0.659009D-05	-0.140987D-04	0.564162D-05	0.653477D-05
32	0.609982D-06	-0.381116D-06	-0.609029D-05	0.933713D-05	0.135673D-05
33	-0.860713D-05	0.739176D-05	-0.403184D-04	0.100929D-04	0.282317D-04
34	0.941189D-05	-0.114571D-04	0.502569D-04	-0.176959D-04	-0.629301D-04
35	0.444518D-05	0.526470D-05	-0.472861D-05	-0.872748D-05	-0.971541D-06
36	-0.141135D-04	0.381118D-05	0.595092D-05	-0.228682D-05	0.330865D-04
37	-0.450507D-05	-0.125790D-04	-0.553028D-06	-0.656781D-05	-0.297105D-05

38	-0.325655D-04	-0.129408D-04	0.176309D-04	-0.100715D-04	-0.452633D-04
39	-0.322863D-04	-0.203321D-04	0.352739D-04	-0.313762D-04	-0.773508D-04
40	0.439460D-04	0.318978D-04	-0.222897D-04	-0.433336D-04	0.223942D-03
41	0.164945D-06	0.139570D-05	-0.182192D-06	0.234606D-05	0.193697D-06
42	-0.437770D-05	0.366246D-05	0.844424D-07	0.295816D-05	0.811010D-05
43	-0.802187D-06	-0.113704D-04	0.815153D-05	-0.888989D-05	-0.161751D-04
44	-0.158192D-06	0.105402D-04	-0.578992D-05	0.150658D-04	0.187034D-04
45	0.103018D-05	-0.545004D-05	0.571267D-05	-0.138121D-04	-0.193257D-04
46	-0.192613D-05	-0.539551D-05	-0.401907D-06	-0.739780D-05	-0.721468D-05
47	0.284250D-05	0.769587D-05	-0.190960D-05	0.277617D-05	0.676170D-05
48	0.319093D-06	-0.400781D-05	0.125644D-04	-0.435217D-05	-0.119372D-04
49	0.119867D-03	0.106120D-03	-0.892987D-04	-0.156646D-03	0.690139D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.387649D-04				
27	0.896408D-05	0.499527D-04			
28	-0.588592D-05	-0.142552D-04	0.187462D-03		
29	0.326897D-05	0.114589D-04	-0.129594D-04	0.388984D-04	
30	0.651130D-05	0.171198D-04	-0.215396D-04	0.199562D-04	0.184971D-03
31	-0.384435D-05	-0.369986D-04	0.647938D-04	-0.282861D-04	-0.671294D-04
32	0.701589D-05	-0.117413D-04	0.397101D-05	-0.130987D-04	-0.280460D-05
33	-0.271831D-05	0.159279D-06	0.143623D-04	-0.199392D-04	-0.605118D-04
34	-0.259861D-04	0.523315D-05	-0.281098D-04	0.813482D-05	0.387472D-04
35	-0.581399D-06	0.128060D-05	-0.860247D-05	0.321323D-05	-0.987055D-05
36	-0.971868D-05	0.344698D-04	-0.313714D-04	0.234488D-04	0.524664D-05
37	-0.113453D-04	0.176215D-04	0.376118D-05	0.662083D-05	-0.466121D-05
38	0.282919D-04	-0.515789D-05	-0.215025D-05	-0.459181D-05	0.417571D-04
39	0.139636D-04	-0.866738D-05	-0.114296D-04	-0.123277D-04	0.187137D-04
40	-0.365545D-04	-0.137376D-04	0.392495D-04	-0.367805D-04	-0.112973D-03
41	0.192750D-06	-0.999156D-06	0.203292D-05	-0.171352D-05	-0.282936D-05
42	0.103518D-05	0.324248D-05	-0.812241D-05	0.518075D-05	-0.212478D-05
43	0.840798D-05	-0.608245D-06	0.118560D-05	0.245395D-05	0.379507D-04
44	-0.734652D-05	0.289074D-05	-0.444907D-05	0.437746D-05	-0.371664D-04
45	-0.210333D-05	0.420362D-06	0.757070D-05	-0.599702D-05	0.202057D-04
46	-0.177109D-05	0.213373D-05	-0.732703D-05	-0.299883D-05	0.786677D-05
47	0.913898D-06	0.208898D-06	-0.290794D-05	0.652427D-05	0.548904D-06
48	-0.218526D-05	0.178371D-05	-0.817572D-05	-0.321959D-06	0.657648D-05
49	-0.103758D-03	-0.487680D-04	0.110870D-03	-0.124059D-03	-0.336402D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES



	31	32	33	34	35
31	0.306022D-03				
32	-0.110430D-04	0.523148D-02			
33	0.348843D-04	0.179153D-03	0.412814D-02		
34	0.132972D-04	-0.737343D-04	-0.246933D-02	0.470564D-02	
35	-0.845893D-05	0.366113D-04	0.451337D-03	-0.321950D-03	0.146771D-02
36	-0.180338D-04	-0.527355D-02	-0.184667D-03	0.109604D-03	0.559763D-05
37	0.265787D-04	-0.520536D-02	-0.102523D-03	0.855156D-04	-0.517070D-04
38	-0.831610D-05	-0.973801D-03	-0.204304D-03	0.364164D-03	0.433094D-04
39	-0.109436D-04	-0.714595D-03	-0.349329D-04	0.230345D-03	0.128256D-03
40	-0.921836D-04	0.767124D-04	0.573107D-03	-0.382963D-03	0.285370D-03
41	0.142686D-05	0.424946D-04	-0.378435D-05	0.288644D-05	-0.693033D-05
42	-0.119625D-04	0.313167D-05	-0.364062D-05	-0.458174D-05	0.103312D-04
43	-0.224688D-05	0.113278D-04	0.137489D-03	-0.191997D-03	-0.306221D-04
44	-0.262853D-05	0.191187D-04	-0.397628D-04	0.138777D-03	0.412551D-04
45	0.704146D-05	-0.693163D-04	-0.361448D-05	-0.101903D-03	-0.611854D-04
46	-0.495897D-05	0.703526D-05	0.309906D-04	-0.386600D-04	-0.529097D-04
47	-0.734094D-05	0.732297D-06	-0.245052D-04	0.375220D-04	0.124612D-04
48	0.417336D-05	-0.217244D-04	0.682032D-05	-0.113308D-04	0.324332D-04
49	-0.335001D-03	-0.483441D-03	0.184650D-02	-0.108630D-02	0.100441D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.804076D-02				
37	0.533784D-02	0.702428D-02			
38	0.120937D-02	0.900687D-03	0.100287D-01		
39	0.794969D-03	0.846677D-03	0.604819D-02	0.870280D-02	
40	-0.335433D-03	-0.269067D-03	-0.158016D-02	0.211032D-02	0.292426D-01
41	0.153042D-04	-0.252715D-04	0.272425D-05	-0.635082D-05	-0.598936D-04
42	0.573549D-05	-0.407793D-05	-0.230568D-03	-0.498859D-04	-0.242354D-03
43	0.101662D-03	0.742165D-04	-0.106603D-03	0.714868D-05	-0.135488D-03
44	-0.650231D-04	-0.564214D-04	0.718575D-04	-0.940270D-05	-0.583646D-04
45	0.793108D-04	0.116319D-03	0.395617D-04	-0.303358D-05	0.181707D-03
46	0.726224D-05	-0.402730D-04	0.148418D-04	0.312256D-04	0.796588D-04
47	0.596477D-05	0.639173D-05	-0.620193D-05	-0.325468D-05	-0.206271D-03
48	0.366057D-04	0.157702D-04	0.277120D-04	0.945300D-05	-0.637868D-05
49	-0.218862D-03	-0.167960D-03	0.936223D-03	0.130448D-01	0.955810D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

41	42	43	44	45
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41	0.302622D-04				
42	-0.931719D-06	0.164902D-03			
43	0.655666D-05	0.667011D-05	0.194791D-02		
44	-0.533920D-06	-0.949428D-05	-0.116664D-02	0.143657D-02	
45	-0.116490D-04	-0.135213D-05	0.716397D-03	-0.135986D-02	0.265123D-02
46	0.305764D-05	-0.195535D-05	0.194067D-03	-0.134491D-03	0.572951D-04
47	-0.623816D-06	0.103629D-04	-0.114013D-03	0.148443D-03	-0.111760D-03
48	0.541804D-06	-0.521278D-05	0.159191D-04	-0.285934D-04	0.255439D-04
49	-0.178479D-03	-0.816220D-03	-0.510206D-03	-0.138182D-03	0.593408D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.338048D-03			
47	-0.202317D-03	0.377712D-03		
48	0.601377D-04	-0.384733D-04	0.180340D-03	
49	0.274631D-03	-0.671697D-03	-0.135139D-04	0.318784D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.216	1.000			
3	0.071	0.186	1.000		
4	0.054	0.184	0.217	1.000	
5	-0.134	-0.252	-0.192	-0.231	1.000
6	0.025	0.008	-0.036	-0.040	0.032
7	-0.046	0.019	-0.013	0.017	-0.039
8	0.019	-0.039	-0.006	-0.039	0.033
9	-0.012	-0.019	0.027	0.033	0.008
10	0.001	-0.028	0.005	-0.026	0.012
11	0.001	-0.016	0.039	-0.021	0.006
12	-0.033	-0.001	-0.025	-0.017	0.001
13	0.023	0.026	-0.056	-0.035	0.013
14	0.013	-0.025	-0.008	-0.016	-0.021
15	0.019	0.024	0.066	0.053	-0.039
16	-0.012	0.008	-0.023	-0.013	0.031
17	-0.074	-0.014	-0.010	-0.005	0.019
18	-0.030	0.035	-0.036	0.015	0.016
19	-0.013	0.003	0.015	0.034	-0.009
20	-0.015	-0.004	0.024	-0.026	0.010

21	0.014	0.015	-0.013	-0.005	0.001
22	-0.020	0.005	-0.021	-0.035	-0.025
23	0.021	-0.016	-0.003	0.032	-0.009
24	0.026	0.009	0.029	0.032	-0.013
25	-0.023	0.016	-0.001	0.033	-0.011
26	0.036	-0.050	0.018	0.024	0.019
27	-0.009	-0.013	0.019	0.044	0.002
28	-0.004	0.026	-0.012	-0.026	-0.005
29	0.017	-0.004	0.013	-0.008	-0.002
30	0.018	-0.030	-0.010	-0.013	0.006
31	-0.051	0.002	0.006	-0.011	-0.006
32	0.010	0.003	0.013	0.021	0.021
33	-0.018	-0.008	-0.038	-0.006	-0.015
34	0.012	0.010	0.036	0.000	0.016
35	-0.022	-0.072	-0.047	-0.001	0.051
36	-0.030	0.004	-0.015	-0.012	-0.011
37	-0.002	0.011	-0.015	-0.017	-0.012
38	-0.022	-0.050	0.021	-0.018	0.014
39	-0.002	-0.009	-0.009	-0.004	0.021
40	0.017	0.005	-0.012	-0.016	0.008
41	-0.033	-0.050	-0.013	0.008	0.032
42	0.014	0.022	-0.007	-0.002	0.030
43	-0.012	-0.047	0.013	0.048	0.040
44	0.017	0.039	0.002	-0.041	-0.048
45	-0.017	-0.025	-0.022	-0.011	0.059
46	-0.002	-0.035	-0.045	0.049	0.020
47	-0.005	0.045	0.048	-0.038	-0.005
48	0.042	-0.005	-0.003	-0.003	-0.042
49	0.017	0.000	-0.013	-0.020	0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.089	1.000			
8	-0.003	-0.190	1.000		
9	-0.057	-0.099	-0.166	1.000	
10	-0.004	0.095	0.087	0.129	1.000
11	-0.007	-0.025	0.011	0.007	-0.005
12	-0.022	0.027	-0.032	-0.020	0.001
13	-0.004	0.005	0.046	0.003	-0.020
14	0.001	-0.054	0.023	-0.002	-0.039
15	-0.004	-0.037	0.015	-0.004	0.032

16	-0.015	-0.005	0.018	-0.003	0.010
17	-0.015	0.013	0.031	-0.024	0.045
18	0.000	0.013	-0.018	-0.030	-0.060
19	0.002	-0.024	-0.030	0.001	-0.004
20	0.000	-0.016	0.012	-0.041	0.010
21	0.030	0.008	-0.018	0.029	0.036
22	-0.015	0.002	0.007	-0.021	-0.032
23	0.001	-0.022	-0.006	-0.008	-0.036
24	-0.043	0.044	-0.024	0.032	0.021
25	-0.034	0.012	0.040	0.040	0.015
26	-0.058	-0.018	0.024	-0.018	-0.021
27	0.013	-0.026	0.010	0.006	0.004
28	-0.003	0.045	-0.010	0.006	0.013
29	0.012	-0.046	0.006	0.048	0.026
30	0.027	-0.022	0.007	-0.003	0.011
31	-0.014	0.007	-0.028	-0.027	-0.031
32	0.006	0.009	0.027	0.016	-0.056
33	0.001	0.024	-0.023	-0.035	-0.016
34	0.006	-0.025	0.014	-0.001	0.003
35	-0.005	-0.002	-0.040	0.022	0.000
36	-0.005	0.002	-0.022	-0.007	0.011
37	-0.007	0.032	0.007	0.015	0.028
38	-0.016	-0.005	-0.041	-0.066	-0.007
39	0.000	-0.025	0.000	-0.035	0.030
40	-0.023	-0.004	0.009	0.044	-0.007
41	0.020	0.025	-0.012	-0.025	0.024
42	0.039	-0.021	-0.034	0.089	0.019
43	-0.045	0.022	-0.012	0.029	0.027
44	0.013	-0.043	0.042	-0.030	-0.010
45	0.009	0.025	-0.046	0.030	-0.007
46	0.004	0.020	0.037	-0.009	-0.001
47	-0.008	-0.054	-0.030	-0.017	0.011
48	0.003	0.032	0.024	-0.009	-0.028
49	0.003	-0.002	0.006	0.034	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.336	1.000			
13	0.048	0.291	1.000		
14	-0.087	-0.177	-0.044	1.000	
15	0.013	-0.083	-0.230	0.259	1.000

16	-0.021	-0.009	0.044	-0.092	-0.269
17	0.110	0.236	0.061	-0.129	-0.049
18	0.049	0.070	0.275	-0.087	-0.162
19	-0.038	-0.013	-0.045	0.093	0.268
20	0.109	0.064	0.045	-0.053	-0.068
21	0.098	0.205	0.036	-0.096	0.003
22	0.006	0.091	0.263	-0.003	-0.099
23	-0.008	-0.053	-0.011	0.085	0.210
24	0.020	0.020	0.048	-0.014	-0.033
25	-0.010	-0.026	0.009	-0.002	0.019
26	-0.107	-0.246	-0.093	0.204	0.055
27	-0.017	-0.117	-0.254	0.010	0.212
28	0.024	0.002	0.028	-0.103	-0.228
29	-0.051	-0.031	-0.028	0.038	0.072
30	-0.004	-0.042	-0.024	0.007	0.021
31	-0.001	-0.002	0.026	0.010	-0.061
32	-0.029	0.001	-0.003	0.012	-0.015
33	0.003	-0.010	-0.023	-0.012	-0.045
34	-0.055	0.014	-0.002	-0.012	0.025
35	-0.013	-0.007	0.043	0.008	-0.021
36	0.022	-0.020	-0.014	0.011	0.042
37	0.053	0.000	0.016	-0.023	0.011
38	0.013	-0.025	0.056	-0.011	-0.026
39	0.009	-0.034	0.022	0.009	0.003
40	-0.010	0.000	0.035	-0.014	-0.017
41	0.036	0.005	0.011	-0.010	0.022
42	-0.022	-0.038	0.004	0.013	0.032
43	0.045	-0.005	-0.021	-0.005	-0.001
44	-0.026	0.010	0.013	0.038	0.023
45	0.019	0.003	-0.015	-0.042	-0.054
46	0.014	-0.016	0.024	0.025	0.036
47	0.031	0.018	-0.001	0.010	-0.016
48	0.002	-0.023	0.018	-0.008	0.022
49	-0.010	-0.005	0.041	-0.013	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.010	1.000			
18	0.074	0.218	1.000		
19	-0.169	-0.073	-0.216	1.000	
20	-0.011	0.095	0.283	-0.163	1.000

21	-0.015	0.252	0.054	-0.015	0.029
22	0.054	0.067	0.194	-0.072	0.056
23	-0.140	-0.036	-0.055	0.253	-0.062
24	0.055	0.098	0.208	-0.103	0.313
25	0.044	-0.018	0.037	-0.017	0.021
26	0.002	-0.190	-0.053	0.022	-0.049
27	-0.057	-0.032	-0.153	0.076	-0.043
28	0.239	-0.011	0.036	-0.213	0.019
29	-0.041	-0.083	-0.252	0.178	-0.235
30	-0.048	-0.034	-0.016	0.000	-0.013
31	0.012	0.023	0.028	-0.062	0.026
32	0.025	-0.026	0.000	-0.021	0.041
33	-0.004	0.018	-0.025	-0.014	0.080
34	0.012	-0.006	-0.033	0.033	-0.058
35	-0.010	0.012	0.028	-0.002	0.004
36	-0.030	-0.012	-0.003	0.006	-0.019
37	-0.031	0.005	0.005	0.014	-0.034
38	-0.021	-0.028	-0.010	0.013	0.012
39	0.001	0.033	-0.037	0.006	-0.025
40	0.001	0.028	0.031	0.006	-0.018
41	0.023	-0.028	0.059	0.024	0.039
42	0.003	0.008	0.021	-0.033	-0.002
43	0.052	-0.002	-0.001	0.011	-0.021
44	-0.022	0.021	-0.023	0.002	0.024
45	0.002	-0.019	0.003	-0.011	-0.033
46	-0.015	-0.010	0.032	-0.040	0.017
47	-0.016	0.048	0.017	-0.005	-0.045
48	-0.061	0.016	-0.005	-0.011	0.043
49	0.000	0.029	0.030	0.004	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.197	1.000			
23	-0.086	-0.160	1.000		
24	0.055	0.219	-0.154	1.000	
25	0.072	0.242	-0.112	0.322	1.000
26	-0.221	-0.047	0.025	0.006	0.006
27	-0.070	-0.205	0.055	-0.027	-0.014
28	-0.011	0.022	-0.221	0.035	0.018
29	-0.057	-0.086	0.060	-0.207	-0.066
30	-0.088	-0.212	0.190	-0.203	-0.287

31	-0.002	0.050	-0.055	0.045	0.018
32	0.001	-0.001	-0.006	0.018	0.001
33	-0.020	0.015	-0.043	0.022	0.022
34	0.020	-0.022	0.050	-0.036	-0.045
35	0.017	0.018	-0.008	-0.032	-0.001
36	-0.023	0.006	0.005	-0.004	0.018
37	-0.008	-0.020	0.000	-0.011	-0.002
38	-0.048	-0.017	0.012	-0.014	-0.022
39	-0.051	-0.029	0.026	-0.047	-0.041
40	0.038	0.025	-0.009	-0.036	0.065
41	0.004	0.034	-0.002	0.060	0.002
42	-0.050	0.038	0.000	0.032	0.031
43	-0.003	-0.034	0.013	-0.028	-0.018
44	-0.001	0.037	-0.010	0.056	0.024
45	0.003	-0.014	0.008	-0.038	-0.019
46	-0.015	-0.039	-0.001	-0.057	-0.019
47	0.021	0.053	-0.007	0.020	0.017
48	0.003	-0.040	0.064	-0.046	-0.044
49	0.031	0.025	-0.011	-0.039	0.060

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.204	1.000			
28	-0.069	-0.147	1.000		
29	0.084	0.260	-0.152	1.000	
30	0.077	0.178	-0.116	0.235	1.000
31	-0.035	-0.299	0.271	-0.259	-0.282
32	0.016	-0.023	0.004	-0.029	-0.003
33	-0.007	0.000	0.016	-0.050	-0.069
34	-0.061	0.011	-0.030	0.019	0.042
35	-0.002	0.005	-0.016	0.013	-0.019
36	-0.017	0.054	-0.026	0.042	0.004
37	-0.022	0.030	0.003	0.013	-0.004
38	0.045	-0.007	-0.002	-0.007	0.031
39	0.024	-0.013	-0.009	-0.021	0.015
40	-0.034	-0.011	0.017	-0.034	-0.049
41	0.006	-0.026	0.027	-0.050	-0.038
42	0.013	0.036	-0.046	0.065	-0.012
43	0.031	-0.002	0.002	0.009	0.063
44	-0.031	0.011	-0.009	0.019	-0.072
45	-0.007	0.001	0.011	-0.019	0.029

46	-0.015	0.016	-0.029	-0.026	0.031
47	0.008	0.002	-0.011	0.054	0.002
48	-0.026	0.019	-0.044	-0.004	0.036
49	-0.030	-0.012	0.014	-0.035	-0.044

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.009	1.000			
33	0.031	0.039	1.000		
34	0.011	-0.015	-0.560	1.000	
35	-0.013	0.013	0.183	-0.123	1.000
36	-0.011	-0.813	-0.032	0.018	0.002
37	0.018	-0.859	-0.019	0.015	-0.016
38	-0.005	-0.134	-0.032	0.053	0.011
39	-0.007	-0.106	-0.006	0.036	0.036
40	-0.031	0.006	0.052	-0.033	0.044
41	0.015	0.107	-0.011	0.008	-0.033
42	-0.053	0.003	-0.004	-0.005	0.021
43	-0.003	0.004	0.048	-0.063	-0.018
44	-0.004	0.007	-0.016	0.053	0.028
45	0.008	-0.019	-0.001	-0.029	-0.031
46	-0.015	0.005	0.026	-0.031	-0.075
47	-0.022	0.001	-0.020	0.028	0.017
48	0.018	-0.022	0.008	-0.012	0.063
49	-0.034	-0.012	0.051	-0.028	0.046

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.710	1.000			
38	0.135	0.107	1.000		
39	0.095	0.108	0.647	1.000	
40	-0.022	-0.019	-0.092	0.132	1.000
41	0.031	-0.055	0.005	-0.012	-0.064
42	0.005	-0.004	-0.179	-0.042	-0.110
43	0.026	0.020	-0.024	0.002	-0.018
44	-0.019	-0.018	0.019	-0.003	-0.009
45	0.017	0.027	0.008	-0.001	0.021
46	0.004	-0.026	0.008	0.018	0.025



47	0.003	0.004	-0.003	-0.002	-0.062
48	0.030	0.014	0.021	0.008	-0.003
49	-0.004	-0.004	0.017	0.248	0.990

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.013	1.000			
43	0.027	0.012	1.000		
44	-0.003	-0.020	-0.697	1.000	
45	-0.041	-0.002	0.315	-0.697	1.000
46	0.030	-0.008	0.239	-0.193	0.061
47	-0.006	0.042	-0.133	0.202	-0.112
48	0.007	-0.030	0.027	-0.056	0.037
49	-0.057	-0.113	-0.020	-0.006	0.020

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.566	1.000		
48	0.244	-0.147	1.000	
49	0.026	-0.061	-0.002	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.004	22
200	1.013	37
300	1.004	40
400	1.006	32

500	1.004	36
600	1.011	36
700	1.012	36
800	1.004	36
900	1.003	7
1000	1.002	40

This is the interaction between latent profile categories and bullying on worsening of physical health

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.947	0.947	0.947	0.947	
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.915			
BULLY15	0.915	0.915		
PRESS15	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16

Category 1	0.881	4884.000
Category 2	0.119	662.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	1.170	3.272	1.000	87.25%	1.000	1.000	1.000
5073.000	0.239	11.772	5.000	0.08%	1.000	1.000	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49

MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.971	0.069	0.000	0.843	1.112	*
CHOICE15	-0.069	0.025	0.002	-0.119	-0.019	*
DUTIES15	-0.032	0.027	0.109	-0.085	0.023	
PRESS15	-0.034	0.026	0.102	-0.084	0.018	
KES15	0.229	0.044	0.000	0.144	0.313	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.104	-0.074	*
BULLY15	0.057	0.004	0.000	0.049	0.064	*
PRESS15	0.100	0.008	0.000	0.085	0.114	*
DUTIES15	-0.106	0.007	0.000	-0.119	-0.091	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.022	*
BULLY15	0.011	0.003	0.000	0.004	0.018	*
PRESS15	0.039	0.007	0.000	0.026	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.057	0.007	0.000	-0.071	-0.043	*
PRESS15	-0.088	0.015	0.000	-0.117	-0.058	*
DUTIES15	0.172	0.014	0.000	0.146	0.201	*
BULLY15 WITH						
PRESS15	0.105	0.007	0.000	0.090	0.119	*
DUTIES15	-0.075	0.006	0.000	-0.088	-0.062	*
PRESS15 WITH						
DUTIES15	-0.186	0.014	0.000	-0.212	-0.161	*
Means						
PHY15	0.003	0.007	0.355	-0.011	0.016	

KES15	0.001	0.008	0.432	-0.013	0.016	
CHOICE15	-0.001	0.015	0.479	-0.031	0.028	
PRESS15	0.000	0.014	0.498	-0.028	0.028	
DUTIES15	-0.002	0.013	0.459	-0.027	0.025	
Variances						
PHY15	0.233	0.005	0.000	0.224	0.243	*
KES15	0.289	0.006	0.000	0.279	0.301	*
CHOICE15	1.083	0.022	0.000	1.041	1.126	*
BULLY15	0.238	0.005	0.000	0.229	0.248	*
PRESS15	1.003	0.020	0.000	0.965	1.044	*
DUTIES15	0.861	0.017	0.000	0.828	0.896	*
Between Level						
S1	ON					
CLU2		-0.210	0.230	0.185	-0.658	0.245
CLU3		-0.025	0.210	0.440	-0.424	0.416
PHYCAT16	ON					
CLU2		-0.196	0.100	0.013	-0.408	-0.019 *
CLU3		-0.012	0.092	0.447	-0.193	0.169
BULLY15		0.063	0.592	0.452	-1.135	1.166
CLU2	WITH					
CLU3		-0.137	0.038	0.000	-0.227	-0.078 *
BULLY15		0.002	0.011	0.419	-0.020	0.024
CLU3	WITH					
BULLY15		0.000	0.012	0.493	-0.023	0.023
Means						
CLU2		0.309	0.064	0.000	0.181	0.438 *
CLU3		0.447	0.069	0.000	0.307	0.580 *
BULLY15		1.167	0.023	0.000	1.121	1.211 *
Intercepts						
S1		0.072	0.181	0.346	-0.313	0.404
Thresholds						
PHYCAT16\$1		1.350	0.678	0.029	-0.056	2.639
Variances						
CLU2		0.230	0.044	0.000	0.163	0.338 *

CLU3	0.262	0.052	0.000	0.187	0.386	*
BULLY15	0.024	0.005	0.000	0.017	0.036	*
Residual Variances						
PHYCAT16	0.014	0.012	0.000	0.001	0.046	*
S1	0.069	0.065	0.000	0.012	0.254	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON						
BULLY15	-0.004	0.033	0.448	-0.076	0.054	
PHYCAT16 ON						
PHY15	0.413	0.024	0.000	0.364	0.459	*
CHOICE15	-0.063	0.023	0.003	-0.108	-0.018	*
DUTIES15	-0.026	0.023	0.123	-0.070	0.018	
PRESS15	-0.029	0.023	0.107	-0.073	0.016	
KES15	0.108	0.021	0.000	0.066	0.148	*
KES15 WITH						
PHY15	0.198	0.014	0.000	0.171	0.225	*
CHOICE15	-0.159	0.013	0.000	-0.186	-0.133	*
BULLY15	0.216	0.013	0.000	0.190	0.242	*
PRESS15	0.186	0.013	0.000	0.159	0.212	*
DUTIES15	-0.212	0.013	0.000	-0.237	-0.186	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.044	*
BULLY15	0.049	0.014	0.000	0.019	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.106	*
DUTIES15	-0.080	0.014	0.000	-0.107	-0.054	*
CHOICE15 WITH						
BULLY15	-0.113	0.014	0.000	-0.140	-0.085	*
PRESS15	-0.084	0.014	0.000	-0.111	-0.057	*



DUTIES15	0.179	0.014	0.000	0.152	0.205	*
BULLY15 WITH						
PRESS15	0.214	0.014	0.000	0.188	0.241	*
DUTIES15	-0.167	0.014	0.000	-0.194	-0.139	*
PRESS15 WITH						
DUTIES15	-0.200	0.014	0.000	-0.227	-0.173	*
Means						
PHY15	0.005	0.014	0.372	-0.022	0.031	
KES15	0.002	0.014	0.428	-0.024	0.030	
CHOICE15	-0.001	0.014	0.470	-0.029	0.026	
PRESS15	0.000	0.014	0.493	-0.028	0.028	
DUTIES15	-0.002	0.014	0.461	-0.029	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	-0.347	0.342	0.185	-0.881	0.456	
CLU3	-0.045	0.354	0.440	-0.710	0.666	
PHYCAT16 ON						
CLU2	-0.548	0.238	0.013	-0.964	-0.051	*
CLU3	-0.034	0.263	0.447	-0.538	0.512	
BULLY15	0.071	0.448	0.452	-0.795	0.796	
CLU2 WITH						
CLU3	-0.565	0.086	0.000	-0.718	-0.372	*
BULLY15	0.032	0.141	0.419	-0.256	0.314	
CLU3 WITH						
BULLY15	0.004	0.137	0.493	-0.264	0.265	
Means						
CLU2	0.648	0.143	0.000	0.364	0.928	*

CLU3	0.877	0.156	0.000	0.555	1.172	*
BULLY15	7.524	0.746	0.000	6.137	9.016	*
Intercepts						
S1	0.226	0.607	0.346	-0.919	1.451	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.454	0.211	0.000	0.060	0.862	*
S1	0.806	0.163	0.000	0.385	0.992	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.230	0.022	0.000	0.189	0.278

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.546	0.211	0.000	0.138	0.940

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.194	0.163	0.000	0.008	0.615

#### TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
0                      0                      0                      0                      0

NU  
PRESS15      DUTIES15  
\_\_\_\_\_  
0                      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
\_\_\_\_\_  
PHYCAT16      0                      0                      0                      0  
PHY15                      0                      0                      0                      0  
KES15                      0                      0                      0                      0  
CHOICE15                      0                      0                      0                      0  
BULLY15                      0                      0                      0                      0  
PRESS15                      0                      0                      0                      0  
DUTIES15                      0                      0                      0                      0

LAMBDA  
PRESS15      DUTIES15  
\_\_\_\_\_  
PHYCAT16      0                      0  
PHY15                      0                      0  
KES15                      0                      0  
CHOICE15                      0                      0  
BULLY15                      0                      0  
PRESS15                      0                      0  
DUTIES15                      0                      0

THETA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u>          </u>
DUTIES15	0	0

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>0</u>

ALPHA

PRESS15	DUTIES15
<u>4</u>	<u>5</u>

BETA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>0</u>
PHY15	0	0	0	0
KES15	0	0	0	0
CHOICE15	0	0	0	0
BULLY15	0	0	0	0
PRESS15	0	0	0	0
DUTIES15	0	0	0	0

BETA

PRESS15	DUTIES15
<u>          </u>	<u>          </u>

PHYCAT16	9	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	-----	-----	-----	-----	-----
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	-----	-----
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
PHYCAT16	
-----	
49	

NU				
PHYCAT16	CLU2	CLU3	BULLY15	
-----	-----	-----	-----	
0	0	0	0	

LAMBDA

	S1	PHYCAT16	CLU2	CLU3	BULLY15
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

THETA				
	PHYCAT16	CLU2	CLU3	BULLY15
PHYCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
BULLY15	0	0	0	0

ALPHA				
S1	PHYCAT16	CLU2	CLU3	BULLY15
32	0	33	34	35

BETA				
S1	PHYCAT16	CLU2	CLU3	BULLY15
S1	0	36	37	0
PHYCAT16	0	38	39	40
CLU2	0	0	0	0
CLU3	0	0	0	0
BULLY15	0	0	0	0

PSI				
S1	PHYCAT16	CLU2	CLU3	BULLY15
S1	41			
PHYCAT16	0	42		
CLU2	0	0	43	
CLU3	0	0	44	45
BULLY15	0	0	46	47
				48

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

LAMBDA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	
PRESS15	0.000		
DUTIES15	0.000	0.000	

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA			
	PRESS15	DUTIES15	
	0.000	0.000	

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA



	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU	
	PHYCAT16
	1.110

NU			
PHYCAT16	CLU2	CLU3	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000

LAMBDA		PHYCAT16	CLU2	CLU3	BULLY15
	S1				
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000

THETA		PHYCAT16	CLU2	CLU3	BULLY15
	PHYCAT16				
PHYCAT16	0.000				
CLU2	0.000	0.000			
CLU3	0.000	0.000	0.000		
BULLY15	0.000	0.000	0.000	0.000	

ALPHA		PHYCAT16	CLU2	CLU3	BULLY15
	S1				
	0.000	0.000	0.406	0.471	1.170

BETA		PHYCAT16	CLU2	CLU3	BULLY15
	S1				
S1	0.000	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000

PSI		PHYCAT16	CLU2	CLU3	BULLY15
	S1				
S1	1.000				
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.121		
CLU3	0.000	0.000	0.000	0.125	
BULLY15	0.000	0.000	0.000	0.000	0.119

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361

Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.438474D-04				
2	0.115267D-04	0.570655D-04			
3	-0.618484D-05	-0.201064D-04	0.215709D-03		
4	0.565003D-05	0.208145D-04	-0.183937D-04	0.207455D-03	
5	-0.125749D-04	-0.267715D-04	0.347462D-04	-0.435647D-04	0.170423D-03
6	0.119547D-04	0.137243D-05	-0.278384D-04	-0.427709D-04	0.219653D-04
7	-0.118172D-04	0.468951D-05	0.541065D-06	0.112175D-04	-0.270745D-04
8	0.508295D-05	0.428626D-05	-0.174671D-05	-0.542312D-05	-0.759642D-05
9	-0.160265D-05	-0.748908D-05	0.151276D-04	0.486678D-05	0.933624D-05
10	-0.173018D-05	-0.404663D-05	0.109615D-04	-0.931950D-05	0.728322D-05
11	0.178496D-06	-0.137537D-06	0.294819D-05	-0.146832D-05	0.352004D-06
12	-0.851049D-06	-0.905962D-08	-0.452286D-06	-0.766681D-06	-0.280527D-06
13	0.889600D-06	0.121640D-05	-0.482421D-05	-0.160888D-05	-0.458697D-06
14	0.617947D-06	-0.136381D-05	0.301114D-06	-0.195094D-05	-0.160165D-05
15	0.848289D-06	0.128972D-05	0.552877D-05	0.381977D-05	-0.239274D-05
16	-0.163844D-05	-0.302646D-06	-0.787026D-05	-0.364769D-05	0.994719D-05
17	-0.164934D-05	-0.294595D-06	-0.500719D-06	0.170459D-06	0.315104D-06
18	-0.716718D-06	0.971100D-06	-0.270752D-05	0.151517D-05	0.178381D-06
19	-0.573818D-06	0.106527D-05	0.241565D-05	0.312586D-05	-0.115894D-05
20	-0.546051D-06	0.122345D-06	0.132843D-05	-0.165551D-05	0.563090D-06
21	0.639822D-06	0.835742D-06	-0.314474D-05	-0.122576D-06	-0.628876D-06
22	-0.107235D-05	0.195672D-06	-0.322961D-05	-0.321270D-05	-0.296957D-05
23	0.233535D-05	-0.238177D-05	0.149379D-06	0.559344D-05	-0.141713D-05
24	0.819659D-06	-0.738892D-07	0.151157D-05	0.263703D-05	-0.336618D-07
25	-0.332760D-05	0.156527D-05	-0.456607D-05	0.955464D-05	-0.267873D-05
26	0.152320D-05	-0.201984D-05	0.258711D-05	0.225929D-05	0.163785D-05
27	-0.259859D-06	0.222568D-07	0.303265D-05	0.458038D-05	0.131481D-06

28	-0.426439D-06	0.217261D-05	-0.564683D-05	-0.341032D-05	-0.204174D-05
29	0.850761D-06	0.786846D-06	0.217610D-05	-0.642011D-06	-0.949172D-06
30	0.173160D-05	-0.294251D-05	0.967134D-06	-0.203469D-05	0.102624D-05
31	-0.607028D-05	-0.366446D-06	0.127249D-05	-0.329367D-05	-0.980295D-06
32	0.135574D-04	0.206132D-04	0.182776D-04	0.512579D-04	0.348290D-04
33	-0.878017D-05	-0.804689D-05	-0.249420D-04	-0.816290D-05	-0.114274D-04
34	0.654979D-05	0.805822D-05	0.261149D-04	-0.302098D-05	0.155103D-04
35	0.256473D-05	0.840354D-05	-0.101491D-04	0.264044D-04	-0.203093D-04
36	-0.722545D-04	-0.508533D-05	-0.184184D-04	-0.572535D-05	-0.225752D-04
37	-0.256984D-04	-0.244423D-04	-0.224506D-04	-0.948532D-04	0.266600D-04
38	-0.144967D-04	-0.378362D-04	0.397418D-04	-0.377439D-04	0.963262D-05
39	0.237154D-05	-0.363222D-05	-0.298846D-04	-0.106595D-05	0.701036D-05
40	0.341367D-04	0.212692D-04	0.155766D-03	-0.646083D-04	0.263957D-05
41	-0.455039D-05	-0.142209D-04	-0.254482D-04	0.163952D-05	0.150546D-04
42	0.150090D-05	0.377741D-05	-0.611069D-05	0.256400D-05	0.435980D-05
43	-0.389676D-05	-0.171512D-04	0.200255D-04	0.223249D-04	0.271471D-04
44	0.522171D-05	0.118441D-04	-0.133649D-04	-0.163585D-04	-0.270753D-04
45	-0.721126D-05	-0.117598D-04	0.415765D-05	-0.125013D-04	0.435441D-04
46	0.422746D-07	-0.987107D-06	-0.253026D-05	0.110534D-04	0.276114D-05
47	0.144337D-06	0.266454D-05	0.443616D-05	-0.653080D-05	-0.460903D-06
48	0.127959D-05	0.111500D-05	-0.153148D-05	0.903212D-06	-0.323874D-05
49	0.436256D-04	0.526684D-05	0.156767D-03	-0.109156D-03	0.166401D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.476778D-02				
7	-0.285107D-03	0.192495D-02			
8	-0.365178D-05	0.113344D-03	0.628773D-03		
9	-0.799162D-04	-0.117993D-03	0.445918D-04	0.681609D-03	
10	-0.173454D-04	0.102359D-03	-0.864812D-04	0.888889D-04	0.753151D-03
11	-0.174050D-05	-0.623192D-05	-0.857701D-06	0.502180D-06	0.368889D-06
12	-0.665362D-05	0.459894D-05	-0.145511D-05	-0.221077D-05	-0.111919D-06
13	-0.105320D-05	0.655643D-06	0.863876D-05	0.198600D-05	-0.536286D-05
14	-0.235493D-05	-0.147778D-04	0.287162D-05	0.100599D-05	-0.849117D-05
15	-0.555681D-05	-0.132040D-04	-0.641761D-06	-0.117369D-05	0.904015D-05
16	-0.190783D-04	-0.165810D-05	0.450465D-05	0.263523D-05	0.513651D-05
17	-0.305480D-05	0.415431D-05	0.216400D-06	-0.168914D-05	0.297095D-05
18	0.269875D-05	0.178496D-05	0.213955D-05	-0.267915D-05	-0.635736D-05
19	-0.270788D-06	-0.520178D-05	-0.708545D-05	-0.268992D-06	-0.157852D-05
20	0.151127D-06	-0.518714D-05	0.110054D-05	-0.533484D-05	0.165297D-05
21	0.116617D-04	0.435490D-05	-0.188942D-05	0.520602D-05	0.690750D-05
22	-0.761504D-05	0.160660D-05	-0.125709D-05	-0.356048D-05	-0.657664D-05

23	-0.176256D-05	-0.134659D-04	-0.106954D-05	-0.184498D-05	-0.150510D-04
24	-0.144321D-04	0.138648D-04	-0.223721D-05	0.240912D-05	0.564794D-05
25	-0.476031D-04	0.772000D-05	0.224868D-04	0.207388D-04	0.703979D-05
26	-0.236094D-04	-0.449089D-05	0.165574D-05	-0.169292D-05	-0.410878D-05
27	0.650626D-05	-0.810349D-05	0.256331D-05	0.111228D-05	0.720694D-06
28	-0.271754D-05	0.271034D-04	0.356276D-05	0.249035D-05	0.174428D-05
29	0.633665D-05	-0.122312D-04	-0.255739D-05	0.837405D-05	0.382289D-05
30	0.270623D-04	-0.101504D-04	-0.253024D-05	0.158302D-05	0.177833D-05
31	-0.133903D-04	0.913337D-05	-0.456600D-06	-0.122142D-04	-0.146067D-04
32	0.435759D-03	-0.593307D-03	0.172315D-03	-0.359471D-04	0.114893D-03
33	0.120005D-04	0.548017D-04	-0.318453D-04	-0.709138D-04	-0.625478D-05
34	0.637129D-05	-0.723639D-04	0.664406D-04	0.850136D-05	-0.772460D-05
35	-0.912412D-05	-0.174002D-04	-0.153742D-04	0.237582D-05	0.875620D-05
36	-0.100138D-02	-0.181646D-04	-0.213976D-03	-0.244469D-03	0.143211D-03
37	-0.614554D-03	0.326580D-03	-0.600688D-04	-0.315783D-04	0.108148D-03
38	-0.124678D-03	-0.175961D-03	-0.997735D-04	-0.155988D-03	-0.244814D-04
39	0.401202D-04	-0.173032D-03	0.415979D-04	-0.109273D-03	0.621019D-04
40	-0.725192D-03	0.698693D-03	-0.402233D-03	-0.241679D-03	0.651860D-03
41	0.382117D-03	-0.643454D-04	-0.297037D-04	0.830683D-05	0.948052D-04
42	0.237491D-04	-0.960239D-05	-0.695585D-05	0.219415D-04	0.479286D-05
43	-0.133503D-03	0.461485D-04	0.786138D-05	0.256450D-04	0.427824D-04
44	0.225334D-04	-0.724259D-04	0.187899D-04	-0.198679D-04	-0.190567D-04
45	0.326103D-04	0.440393D-04	-0.246074D-04	0.262720D-04	-0.737622D-06
46	-0.532366D-05	0.166349D-04	0.971651D-05	0.637269D-06	-0.222246D-05
47	0.330280D-05	-0.352849D-04	-0.780737D-05	-0.678704D-05	0.412863D-05
48	0.343632D-05	0.148837D-05	0.672768D-05	-0.105449D-05	-0.435446D-05
49	0.198109D-03	0.757096D-03	-0.535959D-03	-0.425063D-03	0.752835D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	11	12	13	14	15
11	0.212239D-04				
12	0.590445D-05	0.144075D-04			
13	0.127020D-05	0.626967D-05	0.320454D-04		
14	-0.307315D-05	-0.469227D-05	-0.172466D-05	0.497998D-04	
15	0.164963D-06	-0.268415D-05	-0.102591D-04	0.139881D-04	0.607528D-04
16	-0.154283D-05	-0.296901D-06	0.590686D-05	-0.156366D-04	-0.459517D-04
17	0.164441D-05	0.295810D-05	0.114036D-05	-0.320049D-05	-0.137998D-05
18	0.906554D-06	0.985845D-06	0.568163D-05	-0.225833D-05	-0.470389D-05
19	-0.154204D-05	-0.166545D-06	-0.206175D-05	0.468923D-05	0.147217D-04
20	0.247260D-05	0.107938D-05	0.120793D-05	-0.162454D-05	-0.256894D-05
21	0.310546D-05	0.532162D-05	0.138725D-05	-0.501619D-05	-0.383557D-06
22	0.233537D-06	0.263916D-05	0.112212D-04	-0.346272D-07	-0.627155D-05

23	-0.772462D-06	-0.258212D-05	-0.127731D-05	0.891415D-05	0.245072D-04
24	0.730655D-06	0.348520D-06	0.200217D-05	-0.657053D-06	-0.210336D-05
25	-0.984873D-06	-0.200895D-05	0.879830D-06	0.318709D-06	0.343119D-05
26	-0.310499D-05	-0.581914D-05	-0.329968D-05	0.898510D-05	0.285623D-05
27	-0.549533D-06	-0.313870D-05	-0.101486D-04	0.325197D-06	0.118469D-04
28	0.184418D-05	0.822178D-07	0.239768D-05	-0.945383D-05	-0.232986D-04
29	-0.155975D-05	-0.796809D-06	-0.107108D-05	0.164548D-05	0.401788D-05
30	-0.234617D-06	-0.215808D-05	-0.178351D-05	0.647490D-06	0.249382D-05
31	-0.560179D-07	-0.110004D-06	0.257117D-05	0.940649D-06	-0.837122D-05
32	-0.438863D-04	-0.622304D-05	-0.204957D-04	0.404051D-04	0.270773D-04
33	0.592668D-06	-0.246666D-05	-0.837509D-05	-0.510288D-05	-0.221788D-04
34	-0.173780D-04	0.352786D-05	-0.624864D-06	-0.573753D-05	0.113772D-04
35	-0.126732D-05	-0.110938D-06	0.465799D-05	0.701763D-06	-0.573992D-05
36	0.450029D-04	0.494635D-05	0.929039D-05	-0.364647D-04	0.829105D-05
37	0.740387D-04	0.194490D-04	0.305172D-04	-0.555049D-04	-0.314401D-04
38	0.930844D-05	-0.354478D-05	0.312076D-04	-0.181725D-04	-0.253177D-04
39	0.544382D-05	-0.609487D-05	0.150229D-04	0.195176D-05	-0.371446D-05
40	-0.441412D-04	-0.204521D-04	0.105546D-03	-0.944131D-04	0.344046D-04
41	0.508536D-05	-0.136052D-04	0.248984D-05	0.710995D-05	-0.103917D-04
42	-0.103402D-05	-0.186979D-05	-0.523459D-08	0.291013D-05	0.365854D-05
43	0.863618D-05	-0.596103D-06	-0.587044D-05	-0.586201D-06	0.104167D-05
44	-0.465335D-05	0.127637D-05	0.278201D-05	0.888942D-05	0.685584D-05
45	0.494802D-05	0.103249D-05	-0.440442D-05	-0.132420D-04	-0.203632D-04
46	0.426425D-06	-0.519898D-06	0.118222D-05	0.123112D-05	0.930780D-06
47	0.175052D-05	0.678867D-06	0.196323D-06	0.145604D-05	0.449125D-06
48	-0.258673D-07	-0.353218D-07	0.252982D-06	-0.722578D-06	0.346598D-06
49	-0.480733D-04	-0.319220D-04	0.141205D-03	-0.114680D-03	0.212003D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.492216D-03				
17	0.924552D-06	0.116216D-04			
18	0.609865D-05	0.282214D-05	0.138844D-04		
19	-0.274707D-04	-0.207274D-05	-0.595862D-05	0.534078D-04	
20	-0.678888D-06	0.158416D-05	0.514167D-05	-0.603829D-05	0.236278D-04
21	-0.795691D-06	0.580346D-05	0.154701D-05	-0.153120D-05	0.104860D-05
22	0.906921D-05	0.165997D-05	0.544091D-05	-0.338914D-05	0.204013D-05
23	-0.492571D-04	-0.209445D-05	-0.350408D-05	0.270227D-04	-0.591697D-05
24	0.105519D-04	0.235831D-05	0.562400D-05	-0.620174D-05	0.114756D-04
25	0.190317D-04	-0.164639D-05	0.247228D-05	-0.659705D-06	0.146819D-05
26	-0.289867D-06	-0.388471D-05	-0.127604D-05	0.784421D-06	-0.142420D-05
27	-0.882114D-05	-0.701541D-06	-0.389315D-05	0.361559D-05	-0.153058D-05

28	0.726238D-04	-0.894740D-06	0.130395D-05	-0.193118D-04	0.126053D-05
29	-0.610687D-05	-0.176455D-05	-0.608999D-05	0.824782D-05	-0.742528D-05
30	-0.155355D-04	-0.152849D-05	-0.107919D-05	-0.445096D-06	-0.110767D-05
31	0.414691D-05	0.132101D-05	0.161738D-05	-0.729488D-05	0.230357D-05
32	0.169084D-04	-0.202212D-04	-0.104933D-04	-0.128315D-05	0.476216D-05
33	-0.544097D-05	0.409247D-05	-0.620346D-05	-0.713873D-05	0.244096D-04
34	0.172973D-04	-0.168296D-05	-0.695761D-05	0.183426D-04	-0.193636D-04
35	0.543385D-05	0.193237D-05	0.319866D-05	-0.112202D-04	0.139020D-05
36	-0.808368D-05	0.100882D-04	-0.515085D-05	-0.324078D-04	-0.781296D-05
37	-0.461747D-04	0.193349D-05	0.297199D-05	0.123560D-04	-0.125979D-04
38	-0.504431D-05	-0.602927D-05	-0.358836D-05	-0.200964D-05	0.106371D-04
39	0.552781D-04	0.116540D-04	-0.104250D-04	-0.116219D-04	-0.490070D-05
40	-0.116630D-03	-0.242124D-04	0.960915D-04	-0.436853D-04	-0.155654D-04
41	-0.903921D-05	-0.327245D-05	0.135883D-04	0.856537D-05	0.129792D-04
42	0.220793D-05	0.291285D-06	0.234392D-06	-0.244663D-05	-0.523759D-06
43	0.534529D-04	-0.638967D-06	-0.236710D-05	0.102755D-04	-0.608539D-05
44	-0.199502D-04	0.170967D-05	-0.324137D-05	-0.976612D-06	0.622166D-05
45	0.163161D-05	-0.155489D-05	0.128238D-05	-0.587410D-05	-0.101254D-04
46	0.149181D-05	-0.355024D-06	0.152931D-05	-0.553738D-05	0.425193D-06
47	-0.883361D-05	0.170734D-05	0.675512D-06	0.163549D-05	-0.189833D-05
48	-0.627295D-05	0.320966D-06	0.266484D-06	-0.640165D-06	0.165982D-05
49	-0.117273D-03	-0.257219D-04	0.112586D-03	-0.685786D-04	-0.127222D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.465112D-04				
22	0.101075D-04	0.565764D-04			
23	-0.978518D-05	-0.183348D-04	0.217077D-03		
24	0.289198D-05	0.118838D-04	-0.170527D-04	0.519895D-04	
25	0.100079D-04	0.367785D-04	-0.373299D-04	0.455431D-04	0.408190D-03
26	-0.939358D-05	-0.220069D-05	0.183557D-05	0.354759D-06	0.781995D-06
27	-0.336725D-05	-0.109095D-04	0.534165D-05	-0.146047D-05	-0.196718D-05
28	-0.103060D-06	0.218825D-05	-0.438575D-04	0.349600D-05	0.536236D-05
29	-0.289728D-05	-0.404285D-05	0.672240D-05	-0.100559D-04	-0.775180D-05
30	-0.815532D-05	-0.217806D-04	0.404040D-04	-0.198272D-04	-0.789041D-04
31	-0.353039D-06	0.666654D-05	-0.159770D-04	0.689790D-05	0.661813D-05
32	-0.202900D-04	0.264531D-05	0.286017D-04	0.932530D-05	0.536392D-04
33	-0.858273D-05	0.759161D-05	-0.474641D-04	0.105730D-04	0.301376D-04
34	0.948826D-05	-0.113824D-04	0.544747D-04	-0.158399D-04	-0.638106D-04
35	0.226979D-05	0.311079D-05	-0.176713D-04	0.138575D-05	-0.685607D-06
36	0.481119D-05	-0.344454D-05	0.682458D-04	0.174680D-04	0.201615D-04
37	0.127604D-04	-0.396842D-04	-0.288617D-04	-0.146200D-04	-0.418443D-04



38	-0.233862D-04	-0.137538D-04	0.291413D-04	-0.456080D-07	-0.212037D-04
39	-0.245166D-04	-0.171619D-04	0.307902D-04	-0.173930D-04	-0.749104D-04
40	0.103163D-03	0.287100D-03	-0.457523D-03	0.393805D-04	0.633033D-03
41	-0.478741D-05	0.255447D-05	-0.420846D-04	-0.420344D-05	-0.413128D-04
42	-0.402901D-05	0.347947D-05	0.166017D-05	0.241079D-05	0.674422D-05
43	-0.129290D-06	-0.104084D-04	0.119751D-04	-0.614699D-05	-0.155041D-04
44	-0.533459D-06	0.818094D-05	-0.687242D-05	0.145416D-04	0.188880D-04
45	0.893249D-06	-0.265837D-05	0.667366D-05	-0.148404D-04	-0.187301D-04
46	-0.161100D-05	-0.304630D-05	-0.300482D-05	-0.391296D-05	-0.596883D-05
47	0.168810D-05	0.432523D-05	-0.232957D-06	0.154770D-05	0.529257D-05
48	0.505955D-07	-0.402917D-06	0.195301D-05	-0.598128D-06	-0.238364D-05
49	0.102658D-03	0.338017D-03	-0.545033D-03	0.415552D-04	0.697797D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.387839D-04				
27	0.891890D-05	0.498486D-04			
28	-0.632505D-05	-0.145837D-04	0.189400D-03		
29	0.324246D-05	0.116316D-04	-0.131116D-04	0.400386D-04	
30	0.652072D-05	0.170799D-04	-0.249337D-04	0.207277D-04	0.185124D-03
31	-0.387169D-05	-0.370114D-04	0.667727D-04	-0.277899D-04	-0.671792D-04
32	0.393865D-04	0.214494D-05	-0.244340D-05	-0.999996D-05	0.322172D-04
33	-0.291707D-05	0.746646D-07	0.169379D-04	-0.203613D-04	-0.617739D-04
34	-0.255390D-04	0.503593D-05	-0.320041D-04	0.836115D-05	0.395883D-04
35	-0.503685D-06	-0.843807D-06	0.442121D-05	-0.102265D-05	-0.392928D-05
36	-0.746862D-04	0.358040D-04	-0.927386D-04	0.260956D-04	-0.172810D-04
37	-0.478405D-04	0.121022D-04	-0.162183D-04	0.426853D-05	-0.301715D-04
38	0.241453D-04	0.336192D-05	-0.143097D-04	-0.361585D-05	0.475854D-04
39	0.135003D-04	-0.657143D-05	-0.252515D-04	-0.124190D-04	0.288915D-04
40	-0.224558D-03	-0.255106D-03	0.401758D-03	-0.217629D-03	-0.573003D-03
41	0.133048D-04	-0.962475D-05	0.471603D-04	-0.526743D-05	-0.111327D-04
42	0.189210D-05	0.284596D-05	-0.713724D-05	0.540395D-05	-0.152115D-06
43	0.899477D-05	-0.188532D-05	0.448942D-05	0.554727D-05	0.343186D-04
44	-0.816586D-05	0.377715D-05	-0.540463D-05	0.199829D-05	-0.366806D-04
45	-0.140917D-05	0.106261D-06	0.523793D-05	-0.387158D-05	0.207235D-04
46	-0.129595D-06	0.140874D-05	-0.350420D-06	-0.302076D-05	0.479877D-05
47	0.543271D-06	0.273119D-06	-0.469576D-05	0.494998D-05	0.208456D-05
48	-0.130516D-05	0.203988D-06	-0.198651D-05	-0.870970D-06	0.204131D-05
49	-0.245013D-03	-0.298477D-03	0.440069D-03	-0.257988D-03	-0.627423D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.305989D-03				
32	-0.545693D-04	0.328992D-01			
33	0.354678D-04	0.497175D-03	0.412921D-02		
34	0.132231D-04	-0.109489D-04	-0.246944D-02	0.470498D-02	
35	-0.715696D-05	0.302740D-04	0.600477D-04	-0.326934D-04	0.517667D-03
36	-0.123185D-03	-0.314894D-01	-0.562114D-03	0.171587D-03	0.446740D-04
37	0.706593D-04	-0.325033D-01	-0.296660D-03	0.144455D-03	-0.194729D-04
38	-0.808689D-05	-0.742123D-04	-0.162775D-03	0.354490D-03	0.398396D-04
39	-0.317675D-05	0.485060D-03	-0.699147D-04	0.299592D-03	0.700498D-04
40	-0.249818D-04	-0.140318D-02	0.691731D-03	-0.184876D-03	-0.949100D-03
41	0.169534D-04	-0.126208D-02	-0.176717D-04	0.301111D-04	-0.204254D-04
42	-0.111177D-04	0.562153D-04	-0.114055D-04	0.315563D-06	0.565273D-05
43	0.261862D-05	-0.244446D-03	0.121187D-03	-0.179901D-03	-0.208576D-04
44	-0.324943D-05	0.219531D-03	-0.304691D-04	0.125475D-03	0.271945D-04
45	0.493939D-05	-0.495641D-03	-0.602549D-05	-0.929299D-04	-0.321057D-04
46	-0.495081D-05	0.430492D-04	0.184317D-04	-0.264493D-04	-0.208464D-04
47	-0.265068D-05	-0.773400D-05	-0.160101D-04	0.267976D-04	0.598592D-05
48	0.184250D-05	-0.111887D-04	-0.292652D-06	0.445972D-07	0.672206D-06
49	-0.535946D-04	-0.133145D-02	0.754742D-03	-0.116675D-04	-0.104406D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.530625D-01				
37	0.324968D-01	0.439128D-01			
38	0.114573D-02	0.249104D-03	0.100777D-01		
39	-0.119284D-03	-0.403131D-03	0.632794D-02	0.851316D-02	
40	-0.537979D-03	-0.252834D-02	-0.113328D-01	-0.103485D-01	0.349824D+00
41	-0.234662D-02	0.612593D-03	-0.738286D-04	-0.135926D-04	-0.130490D-02
42	-0.132991D-03	-0.799439D-04	-0.259126D-03	-0.526274D-04	0.467267D-04
43	0.490030D-03	0.501688D-03	-0.779242D-04	-0.167020D-04	-0.135720D-02
44	-0.155738D-03	-0.352365D-03	0.176455D-04	-0.671963D-05	0.654550D-03
45	0.350412D-03	0.694557D-03	0.978503D-04	0.127778D-04	0.196035D-03
46	-0.985052D-05	-0.107464D-03	-0.163677D-05	0.337667D-04	-0.114629D-03
47	-0.234750D-04	0.374353D-04	0.114915D-04	-0.616739D-06	-0.175856D-03
48	0.224453D-04	0.993961D-06	-0.506357D-06	-0.712395D-05	-0.845934D-05
49	-0.112520D-02	-0.331939D-02	-0.698959D-02	-0.583955D-02	0.398266D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

41	42	43	44	45
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41	0.426948D-02				
42	0.310987D-04	0.145275D-03			
43	0.758838D-04	0.569319D-05	0.194598D-02		
44	-0.487150D-04	-0.560561D-05	-0.115665D-02	0.143465D-02	
45	-0.119325D-03	-0.179862D-05	0.716132D-03	-0.137380D-02	0.268053D-02
46	0.198420D-04	0.574264D-07	0.184518D-04	-0.117391D-04	-0.123161D-04
47	-0.715092D-06	0.619773D-05	-0.893638D-05	0.688969D-05	0.256798D-04
48	-0.513215D-05	-0.107907D-05	0.296762D-07	-0.487558D-05	0.471385D-05
49	-0.110356D-02	0.322305D-04	-0.165940D-02	0.792628D-03	0.249256D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.123456D-03			
47	-0.732790D-04	0.134880D-03		
48	0.637450D-06	-0.101639D-05	0.241577D-04	
49	-0.113101D-03	-0.202259D-03	-0.149859D-04	0.459618D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.230	1.000			
3	-0.064	-0.181	1.000		
4	0.059	0.191	-0.087	1.000	
5	-0.145	-0.271	0.181	-0.232	1.000
6	0.026	0.003	-0.027	-0.043	0.024
7	-0.041	0.014	0.001	0.018	-0.047
8	0.031	0.023	-0.005	-0.015	-0.023
9	-0.009	-0.038	0.039	0.013	0.027
10	-0.010	-0.020	0.027	-0.024	0.020
11	0.006	-0.004	0.044	-0.022	0.006
12	-0.034	0.000	-0.008	-0.014	-0.006
13	0.024	0.028	-0.058	-0.020	-0.006
14	0.013	-0.026	0.003	-0.019	-0.017
15	0.016	0.022	0.048	0.034	-0.024
16	-0.011	-0.002	-0.024	-0.011	0.034
17	-0.073	-0.011	-0.010	0.003	0.007
18	-0.029	0.034	-0.049	0.028	0.004
19	-0.012	0.019	0.023	0.030	-0.012
20	-0.017	0.003	0.019	-0.024	0.009

21	0.014	0.016	-0.031	-0.001	-0.007
22	-0.022	0.003	-0.029	-0.030	-0.030
23	0.024	-0.021	0.001	0.026	-0.007
24	0.017	-0.001	0.014	0.025	0.000
25	-0.025	0.010	-0.015	0.033	-0.010
26	0.037	-0.043	0.028	0.025	0.020
27	-0.006	0.000	0.029	0.045	0.001
28	-0.005	0.021	-0.028	-0.017	-0.011
29	0.020	0.016	0.023	-0.007	-0.011
30	0.019	-0.029	0.005	-0.010	0.006
31	-0.052	-0.003	0.005	-0.013	-0.004
32	0.011	0.015	0.007	0.020	0.015
33	-0.021	-0.017	-0.026	-0.009	-0.014
34	0.014	0.016	0.026	-0.003	0.017
35	0.017	0.049	-0.030	0.081	-0.068
36	-0.047	-0.003	-0.005	-0.002	-0.008
37	-0.019	-0.015	-0.007	-0.031	0.010
38	-0.022	-0.050	0.027	-0.026	0.007
39	0.004	-0.005	-0.022	-0.001	0.006
40	0.009	0.005	0.018	-0.008	0.000
41	-0.011	-0.029	-0.027	0.002	0.018
42	0.019	0.041	-0.035	0.015	0.028
43	-0.013	-0.051	0.031	0.035	0.047
44	0.021	0.041	-0.024	-0.030	-0.055
45	-0.021	-0.030	0.005	-0.017	0.064
46	0.001	-0.012	-0.016	0.069	0.019
47	0.002	0.030	0.026	-0.039	-0.003
48	0.039	0.030	-0.021	0.013	-0.050
49	0.010	0.001	0.016	-0.011	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.094	1.000			
8	-0.002	0.103	1.000		
9	-0.044	-0.103	0.068	1.000	
10	-0.009	0.085	-0.126	0.124	1.000
11	-0.005	-0.031	-0.007	0.004	0.003
12	-0.025	0.028	-0.015	-0.022	-0.001
13	-0.003	0.003	0.061	0.013	-0.035
14	-0.005	-0.048	0.016	0.005	-0.044
15	-0.010	-0.039	-0.003	-0.006	0.042

16	-0.012	-0.002	0.008	0.005	0.008
17	-0.013	0.028	0.003	-0.019	0.032
18	0.010	0.011	0.023	-0.028	-0.062
19	-0.001	-0.016	-0.039	-0.001	-0.008
20	0.000	-0.024	0.009	-0.042	0.012
21	0.025	0.015	-0.011	0.029	0.037
22	-0.015	0.005	-0.007	-0.018	-0.032
23	-0.002	-0.021	-0.003	-0.005	-0.037
24	-0.029	0.044	-0.012	0.013	0.029
25	-0.034	0.009	0.044	0.039	0.013
26	-0.055	-0.016	0.011	-0.010	-0.024
27	0.013	-0.026	0.014	0.006	0.004
28	-0.003	0.045	0.010	0.007	0.005
29	0.015	-0.044	-0.016	0.051	0.022
30	0.029	-0.017	-0.007	0.004	0.005
31	-0.011	0.012	-0.001	-0.027	-0.030
32	0.035	-0.075	0.038	-0.008	0.023
33	0.003	0.019	-0.020	-0.042	-0.004
34	0.001	-0.024	0.039	0.005	-0.004
35	-0.006	-0.017	-0.027	0.004	0.014
36	-0.063	-0.002	-0.037	-0.041	0.023
37	-0.042	0.036	-0.011	-0.006	0.019
38	-0.018	-0.040	-0.040	-0.060	-0.009
39	0.006	-0.043	0.018	-0.045	0.025
40	-0.018	0.027	-0.027	-0.016	0.040
41	0.085	-0.022	-0.018	0.005	0.053
42	0.029	-0.018	-0.023	0.070	0.014
43	-0.044	0.024	0.007	0.022	0.035
44	0.009	-0.044	0.020	-0.020	-0.018
45	0.009	0.019	-0.019	0.019	-0.001
46	-0.007	0.034	0.035	0.002	-0.007
47	0.004	-0.069	-0.027	-0.022	0.013
48	0.010	0.007	0.055	-0.008	-0.032
49	0.004	0.025	-0.032	-0.024	0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.338	1.000			
13	0.049	0.292	1.000		
14	-0.095	-0.175	-0.043	1.000	
15	0.005	-0.091	-0.233	0.254	1.000

16	-0.015	-0.004	0.047	-0.100	-0.266
17	0.105	0.229	0.059	-0.133	-0.052
18	0.053	0.070	0.269	-0.086	-0.162
19	-0.046	-0.006	-0.050	0.091	0.258
20	0.110	0.059	0.044	-0.047	-0.068
21	0.099	0.206	0.036	-0.104	-0.007
22	0.007	0.092	0.264	-0.001	-0.107
23	-0.011	-0.046	-0.015	0.086	0.213
24	0.022	0.013	0.049	-0.013	-0.037
25	-0.011	-0.026	0.008	0.002	0.022
26	-0.108	-0.246	-0.094	0.204	0.059
27	-0.017	-0.117	-0.254	0.007	0.215
28	0.029	0.002	0.031	-0.097	-0.217
29	-0.054	-0.033	-0.030	0.037	0.081
30	-0.004	-0.042	-0.023	0.007	0.024
31	-0.001	-0.002	0.026	0.008	-0.061
32	-0.053	-0.009	-0.020	0.032	0.019
33	0.002	-0.010	-0.023	-0.011	-0.044
34	-0.055	0.014	-0.002	-0.012	0.021
35	-0.012	-0.001	0.036	0.004	-0.032
36	0.042	0.006	0.007	-0.022	0.005
37	0.077	0.024	0.026	-0.038	-0.019
38	0.020	-0.009	0.055	-0.026	-0.032
39	0.013	-0.017	0.029	0.003	-0.005
40	-0.016	-0.009	0.032	-0.023	0.007
41	0.017	-0.055	0.007	0.015	-0.020
42	-0.019	-0.041	0.000	0.034	0.039
43	0.042	-0.004	-0.024	-0.002	0.003
44	-0.027	0.009	0.013	0.033	0.023
45	0.021	0.005	-0.015	-0.036	-0.050
46	0.008	-0.012	0.019	0.016	0.011
47	0.033	0.015	0.003	0.018	0.005
48	-0.001	-0.002	0.009	-0.021	0.009
49	-0.015	-0.012	0.037	-0.024	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.012	1.000			
18	0.074	0.222	1.000		
19	-0.169	-0.083	-0.219	1.000	
20	-0.006	0.096	0.284	-0.170	1.000

21	-0.005	0.250	0.061	-0.031	0.032
22	0.054	0.065	0.194	-0.062	0.056
23	-0.151	-0.042	-0.064	0.251	-0.083
24	0.066	0.096	0.209	-0.118	0.327
25	0.042	-0.024	0.033	-0.004	0.015
26	-0.002	-0.183	-0.055	0.017	-0.047
27	-0.056	-0.029	-0.148	0.070	-0.045
28	0.238	-0.019	0.025	-0.192	0.019
29	-0.044	-0.082	-0.258	0.178	-0.241
30	-0.051	-0.033	-0.021	-0.004	-0.017
31	0.011	0.022	0.025	-0.057	0.027
32	0.004	-0.033	-0.016	-0.001	0.005
33	-0.004	0.019	-0.026	-0.015	0.078
34	0.011	-0.007	-0.027	0.037	-0.058
35	0.011	0.025	0.038	-0.067	0.013
36	-0.002	0.013	-0.006	-0.019	-0.007
37	-0.010	0.003	0.004	0.008	-0.012
38	-0.002	-0.018	-0.010	-0.003	0.022
39	0.027	0.037	-0.030	-0.017	-0.011
40	-0.009	-0.012	0.044	-0.010	-0.005
41	-0.006	-0.015	0.056	0.018	0.041
42	0.008	0.007	0.005	-0.028	-0.009
43	0.055	-0.004	-0.014	0.032	-0.028
44	-0.024	0.013	-0.023	-0.004	0.034
45	0.001	-0.009	0.007	-0.016	-0.040
46	0.006	-0.009	0.037	-0.068	0.008
47	-0.034	0.043	0.016	0.019	-0.034
48	-0.058	0.019	0.015	-0.018	0.069
49	-0.008	-0.011	0.045	-0.014	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.197	1.000			
23	-0.097	-0.165	1.000		
24	0.059	0.219	-0.161	1.000	
25	0.073	0.242	-0.125	0.313	1.000
26	-0.221	-0.047	0.020	0.008	0.006
27	-0.070	-0.205	0.051	-0.029	-0.014
28	-0.001	0.021	-0.216	0.035	0.019
29	-0.067	-0.085	0.072	-0.220	-0.061
30	-0.088	-0.213	0.202	-0.202	-0.287

31	-0.003	0.051	-0.062	0.055	0.019
32	-0.016	0.002	0.011	0.007	0.015
33	-0.020	0.016	-0.050	0.023	0.023
34	0.020	-0.022	0.054	-0.032	-0.046
35	0.015	0.018	-0.053	0.008	-0.001
36	0.003	-0.002	0.020	0.011	0.004
37	0.009	-0.025	-0.009	-0.010	-0.010
38	-0.034	-0.018	0.020	0.000	-0.010
39	-0.039	-0.025	0.023	-0.026	-0.040
40	0.026	0.065	-0.053	0.009	0.053
41	-0.011	0.005	-0.044	-0.009	-0.031
42	-0.049	0.038	0.009	0.028	0.028
43	0.000	-0.031	0.018	-0.019	-0.017
44	-0.002	0.029	-0.012	0.053	0.025
45	0.003	-0.007	0.009	-0.040	-0.018
46	-0.021	-0.036	-0.018	-0.049	-0.027
47	0.021	0.050	-0.001	0.018	0.023
48	0.002	-0.011	0.027	-0.017	-0.024
49	0.022	0.066	-0.055	0.009	0.051

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.203	1.000			
28	-0.074	-0.150	1.000		
29	0.082	0.260	-0.151	1.000	
30	0.077	0.178	-0.133	0.241	1.000
31	-0.036	-0.300	0.277	-0.251	-0.282
32	0.035	0.002	-0.001	-0.009	0.013
33	-0.007	0.000	0.019	-0.050	-0.071
34	-0.060	0.010	-0.034	0.019	0.042
35	-0.004	-0.005	0.014	-0.007	-0.013
36	-0.052	0.022	-0.029	0.018	-0.006
37	-0.037	0.008	-0.006	0.003	-0.011
38	0.039	0.005	-0.010	-0.006	0.035
39	0.023	-0.010	-0.020	-0.021	0.023
40	-0.061	-0.061	0.049	-0.058	-0.071
41	0.033	-0.021	0.052	-0.013	-0.013
42	0.025	0.033	-0.043	0.071	-0.001
43	0.033	-0.006	0.007	0.020	0.057
44	-0.035	0.014	-0.010	0.008	-0.071
45	-0.004	0.000	0.007	-0.012	0.029



46	-0.002	0.018	-0.002	-0.043	0.032
47	0.008	0.003	-0.029	0.067	0.013
48	-0.043	0.006	-0.029	-0.028	0.031
49	-0.058	-0.062	0.047	-0.060	-0.068

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.017	1.000			
33	0.032	0.043	1.000		
34	0.011	-0.001	-0.560	1.000	
35	-0.018	0.007	0.041	-0.021	1.000
36	-0.031	-0.754	-0.038	0.011	0.009
37	0.019	-0.855	-0.022	0.010	-0.004
38	-0.005	-0.004	-0.025	0.051	0.017
39	-0.002	0.029	-0.012	0.047	0.033
40	-0.002	-0.013	0.018	-0.005	-0.071
41	0.015	-0.106	-0.004	0.007	-0.014
42	-0.053	0.026	-0.015	0.000	0.021
43	0.003	-0.031	0.043	-0.059	-0.021
44	-0.005	0.032	-0.013	0.048	0.032
45	0.005	-0.053	-0.002	-0.026	-0.027
46	-0.025	0.021	0.026	-0.035	-0.082
47	-0.013	-0.004	-0.021	0.034	0.023
48	0.021	-0.013	-0.001	0.000	0.006
49	-0.005	-0.011	0.017	0.000	-0.068

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.673	1.000			
38	0.050	0.012	1.000		
39	-0.006	-0.021	0.683	1.000	
40	-0.004	-0.020	-0.191	-0.190	1.000
41	-0.156	0.045	-0.011	-0.002	-0.034
42	-0.048	-0.032	-0.214	-0.047	0.007
43	0.048	0.054	-0.018	-0.004	-0.052
44	-0.018	-0.044	0.005	-0.002	0.029
45	0.029	0.064	0.019	0.003	0.006
46	-0.004	-0.046	-0.001	0.033	-0.017

47	-0.009	0.015	0.010	-0.001	-0.026
48	0.020	0.001	-0.001	-0.016	-0.003
49	-0.007	-0.023	-0.103	-0.093	0.993

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.039	1.000			
43	0.026	0.011	1.000		
44	-0.020	-0.012	-0.692	1.000	
45	-0.035	-0.003	0.314	-0.701	1.000
46	0.027	0.000	0.038	-0.028	-0.021
47	-0.001	0.044	-0.017	0.016	0.043
48	-0.016	-0.018	0.000	-0.026	0.019
49	-0.025	0.004	-0.055	0.031	0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.568	1.000		
48	0.012	-0.018	1.000	
49	-0.015	-0.026	-0.004	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.008	39
200	1.008	37
300	1.008	40
400	1.001	28

500	1.003	41
600	1.005	41
700	1.003	42
800	1.003	7
900	1.004	7
1000	1.002	7

This is the interaction between latent profile categories and time pressure on worsening of physical health

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.947	0.947	0.947	0.947	
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.915			
BULLY15	0.915	0.915		
PRESS15	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16

Category 1	0.881	4884.000
Category 2	0.119	662.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	2.462	0.252	1.000	19.10%	2.000	2.000	2.000
5074.000	1.001	-0.371	5.000	2.76%	3.000	3.000	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.968	0.069	0.000	0.838	1.105	*
CHOICE15	-0.068	0.025	0.003	-0.118	-0.019	*
DUTIES15	-0.031	0.027	0.127	-0.084	0.026	
BULLY15	0.024	0.047	0.297	-0.066	0.118	
KES15	0.226	0.044	0.000	0.138	0.312	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.104	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.099	0.007	0.000	0.084	0.113	*
DUTIES15	-0.106	0.007	0.000	-0.119	-0.091	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.022	*
BULLY15	0.012	0.003	0.000	0.005	0.019	*
PRESS15	0.036	0.007	0.000	0.024	0.049	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15	-0.076	0.015	0.000	-0.104	-0.047	*
DUTIES15	0.173	0.014	0.000	0.146	0.201	*
BULLY15 WITH						
PRESS15	0.101	0.007	0.000	0.088	0.115	*
DUTIES15	-0.078	0.006	0.000	-0.090	-0.065	*
PRESS15 WITH						
DUTIES15	-0.177	0.014	0.000	-0.204	-0.152	*
Means						
PHY15	0.003	0.007	0.355	-0.011	0.016	

KES15	0.001	0.008	0.426	-0.013	0.017	
CHOICE15	-0.001	0.015	0.471	-0.031	0.027	
BULLY15	0.000	0.007	0.479	-0.013	0.015	
DUTIES15	-0.002	0.013	0.447	-0.026	0.025	
Variances						
PHY15	0.233	0.005	0.000	0.224	0.243	*
KES15	0.289	0.006	0.000	0.279	0.301	*
CHOICE15	1.083	0.022	0.000	1.041	1.127	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	0.955	0.019	0.000	0.919	0.994	*
DUTIES15	0.861	0.017	0.000	0.828	0.896	*
Between Level						
S1	ON					
CLU2		0.017	0.094	0.422	-0.166	0.205
CLU3		0.054	0.089	0.286	-0.121	0.222
PHYCAT16	ON					
CLU2		-0.186	0.098	0.018	-0.393	-0.012 *
CLU3		-0.007	0.090	0.472	-0.189	0.169
PRESS15		-0.160	0.157	0.145	-0.455	0.155
CLU2	WITH					
CLU3		-0.137	0.038	0.000	-0.227	-0.078 *
PRESS15		0.002	0.020	0.454	-0.040	0.042
CLU3	WITH					
PRESS15		-0.007	0.021	0.379	-0.051	0.035
Means						
CLU2		0.309	0.064	0.000	0.181	0.437 *
CLU3		0.447	0.069	0.000	0.308	0.579 *
PRESS15		2.387	0.042	0.000	2.306	2.467 *
Intercepts						
S1		-0.055	0.078	0.232	-0.213	0.095
Thresholds						
PHYCAT16\$1		0.876	0.384	0.010	0.145	1.645 *
Variances						
CLU2		0.229	0.044	0.000	0.163	0.337 *



CLU3	0.262	0.052	0.000	0.187	0.386	*
PRESS15	0.077	0.018	0.000	0.051	0.121	*
Residual Variances						
PHYCAT16	0.015	0.012	0.000	0.002	0.047	*
S1	0.004	0.006	0.000	0.000	0.021	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON PRESS15	-0.026	0.027	0.175	-0.078	0.027	
PHYCAT16 ON						
PHY15	0.414	0.024	0.000	0.365	0.460	*
CHOICE15	-0.063	0.023	0.003	-0.107	-0.019	*
DUTIES15	-0.025	0.023	0.137	-0.069	0.020	
BULLY15	0.011	0.021	0.296	-0.030	0.054	
KES15	0.107	0.021	0.000	0.065	0.148	*
KES15 WITH						
PHY15	0.198	0.014	0.000	0.171	0.225	*
CHOICE15	-0.159	0.013	0.000	-0.186	-0.133	*
BULLY15	0.219	0.013	0.000	0.191	0.244	*
PRESS15	0.189	0.014	0.000	0.162	0.215	*
DUTIES15	-0.212	0.013	0.000	-0.237	-0.186	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.044	*
BULLY15	0.050	0.014	0.000	0.021	0.078	*
PRESS15	0.077	0.014	0.000	0.049	0.103	*
DUTIES15	-0.080	0.014	0.000	-0.107	-0.054	*
CHOICE15 WITH						
BULLY15	-0.114	0.014	0.000	-0.141	-0.087	*
PRESS15	-0.074	0.014	0.000	-0.101	-0.046	*

DUTIES15	0.179	0.014	0.000	0.151	0.206	*
BULLY15 WITH						
PRESS15	0.212	0.014	0.000	0.186	0.238	*
DUTIES15	-0.171	0.013	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.195	0.014	0.000	-0.222	-0.166	*
Means						
PHY15	0.005	0.014	0.371	-0.022	0.031	
KES15	0.003	0.014	0.422	-0.024	0.030	
CHOICE15	-0.001	0.014	0.468	-0.029	0.026	
BULLY15	0.001	0.014	0.477	-0.027	0.029	
DUTIES15	-0.002	0.014	0.453	-0.029	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	0.106	0.526	0.422	-0.860	1.031	
CLU3	0.355	0.521	0.286	-0.799	1.144	
PHYCAT16 ON						
CLU2	-0.548	0.242	0.018	-0.976	-0.033	*
CLU3	-0.020	0.270	0.472	-0.537	0.517	
PRESS15	-0.266	0.247	0.145	-0.698	0.270	
CLU2 WITH						
CLU3	-0.565	0.086	0.000	-0.716	-0.371	*
PRESS15	0.018	0.143	0.454	-0.280	0.294	
CLU3 WITH						
PRESS15	-0.049	0.140	0.379	-0.317	0.232	
Means						
CLU2	0.647	0.143	0.000	0.363	0.929	*

CLU3	0.877	0.156	0.000	0.558	1.173	*
PRESS15	8.606	0.943	0.000	6.853	10.667	*
Intercepts						
S1	-0.703	0.950	0.232	-2.542	1.131	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.527	0.196	0.000	0.135	0.884	*
S1	0.671	0.279	0.000	0.034	0.987	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.220	0.021	0.000	0.181	0.265

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.473	0.196	0.000	0.116	0.865

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.329	0.279	0.000	0.013	0.966

#### TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
 PHYCAT16  
 \_\_\_\_\_  
 0

NU  
 PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
 \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
 0                  0                  0                  0                  0

NU  
 PRESS15      DUTIES15  
 \_\_\_\_\_      \_\_\_\_\_  
 0                  0

LAMBDA  
 PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
 \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
 PHYCAT16      0                  0                  0                  0                  0  
 PHY15                  0                  0                  0                  0                  0  
 KES15                  0                  0                  0                  0                  0  
 CHOICE15              0                  0                  0                  0                  0  
 BULLY15              0                  0                  0                  0                  0  
 PRESS15              0                  0                  0                  0                  0  
 DUTIES15              0                  0                  0                  0                  0

LAMBDA  
 PRESS15      DUTIES15  
 \_\_\_\_\_      \_\_\_\_\_  
 PHYCAT16      0                  0  
 PHY15                  0                  0  
 KES15                  0                  0  
 CHOICE15              0                  0  
 BULLY15              0                  0  
 PRESS15              0                  0  
 DUTIES15              0                  0

THETA  
 PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u>          </u>
DUTIES15	0	0

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA

PRESS15	DUTIES15
<u>0</u>	<u>5</u>

BETA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0
KES15	0	0	0	0
CHOICE15	0	0	0	0
BULLY15	0	0	0	0
PRESS15	0	0	0	0
DUTIES15	0	0	0	0

BETA

PRESS15	DUTIES15
<u>          </u>	<u>          </u>

PHYCAT16	0	10
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
PHYCAT16	
<hr/>	
49	

NU			
PHYCAT16	CLU2	CLU3	PRESS15
<hr/>	<hr/>	<hr/>	<hr/>
0	0	0	0

LAMBDA

	S1	PHYCAT16	CLU2	CLU3	PRESS15
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
PRESS15	0	0	0	0	0

THETA				
	PHYCAT16	CLU2	CLU3	PRESS15
PHYCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
PRESS15	0	0	0	0

ALPHA				
S1	PHYCAT16	CLU2	CLU3	PRESS15
32	0	33	34	35

BETA				
S1	PHYCAT16	CLU2	CLU3	PRESS15
S1	0	36	37	0
PHYCAT16	0	38	39	40
CLU2	0	0	0	0
CLU3	0	0	0	0
PRESS15	0	0	0	0

PSI				
S1	PHYCAT16	CLU2	CLU3	PRESS15
S1	41			
PHYCAT16	0	42		
CLU2	0	0	43	
CLU3	0	0	44	45
PRESS15	0	0	46	47
				48

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

LAMBDA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	1.000



THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	
PRESS15	0.000		
DUTIES15	0.000	0.000	

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA			
	PRESS15	DUTIES15	
	0.000	0.000	

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU	
	PHYCAT16
	1.110

NU				
	PHYCAT16	CLU2	CLU3	PRESS15
	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000

LAMBDA					
	S1	PHYCAT16	CLU2	CLU3	PRESS15
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	0.000	1.000

THETA				
	PHYCAT16	CLU2	CLU3	PRESS15
PHYCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
PRESS15	0.000	0.000	0.000	0.000

ALPHA					
	S1	PHYCAT16	CLU2	CLU3	PRESS15
	0.000	0.000	0.406	0.471	2.462

BETA					
	S1	PHYCAT16	CLU2	CLU3	PRESS15
S1	0.000	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000

PSI					
	S1	PHYCAT16	CLU2	CLU3	PRESS15
S1	1.000				
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.121		
CLU3	0.000	0.000	0.000	0.125	
PRESS15	0.000	0.000	0.000	0.000	0.501

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361

Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.440948D-04				
2	0.117963D-04	0.570115D-04			
3	-0.625549D-05	-0.198991D-04	0.215553D-03		
4	0.177159D-05	0.115891D-04	-0.117433D-04	0.500056D-04	
5	-0.132521D-04	-0.267378D-04	0.344507D-04	-0.167447D-04	0.169739D-03
6	0.113876D-04	0.241930D-05	-0.247144D-04	-0.193969D-04	0.209438D-04
7	-0.129341D-04	0.325860D-05	0.496225D-05	0.241254D-05	-0.237323D-04
8	0.577099D-05	0.432893D-05	-0.163412D-05	-0.256301D-05	-0.798615D-05
9	0.264616D-05	-0.210327D-04	0.852912D-05	-0.702987D-05	0.203375D-04
10	-0.121908D-05	-0.318313D-05	0.924768D-05	-0.553592D-05	0.562677D-05
11	0.234813D-06	0.198846D-08	0.298433D-05	-0.183948D-06	-0.247261D-07
12	-0.833781D-06	-0.218793D-07	-0.455771D-06	-0.313821D-06	-0.312480D-06
13	0.948028D-06	0.133517D-05	-0.501478D-05	-0.436958D-06	-0.768190D-06
14	0.644470D-06	-0.137727D-05	0.324658D-06	-0.108837D-05	-0.170218D-05
15	0.800121D-06	0.115490D-05	0.565535D-05	0.141731D-05	-0.207428D-05
16	-0.156667D-05	0.229548D-06	-0.912577D-05	-0.116267D-05	0.908350D-05
17	-0.157782D-05	-0.247148D-06	-0.208195D-06	-0.776597D-08	0.464370D-06
18	-0.695531D-06	0.109263D-05	-0.250866D-05	0.777724D-06	0.254408D-06
19	-0.698461D-06	0.254909D-06	0.313133D-05	0.113512D-05	-0.471215D-06
20	-0.359542D-06	0.147425D-06	0.152496D-05	-0.104020D-05	0.660826D-06
21	0.457458D-06	0.358996D-06	-0.338600D-05	-0.905180D-06	-0.176895D-06
22	-0.100363D-05	0.414402D-07	-0.374168D-05	-0.147887D-05	-0.332840D-05
23	0.238212D-05	-0.476175D-06	-0.111699D-05	0.433734D-05	-0.324753D-05
24	0.986478D-06	-0.719633D-07	0.145937D-05	0.100843D-05	0.519892D-06
25	-0.351244D-05	0.151117D-05	-0.567678D-05	0.633062D-05	-0.251655D-05
26	0.151245D-05	-0.219287D-05	0.277668D-05	0.503402D-06	0.178035D-05
27	-0.288193D-06	-0.275748D-06	0.346981D-05	0.875305D-06	0.503834D-06

28	-0.324744D-06	0.258899D-05	-0.624461D-05	0.476699D-06	-0.285823D-05
29	0.815413D-06	0.240188D-06	0.234988D-05	-0.120301D-05	-0.748346D-06
30	0.173551D-05	-0.251705D-05	0.173299D-05	-0.158220D-05	0.946244D-06
31	-0.597516D-05	0.710985D-07	0.686017D-06	0.967870D-06	-0.158893D-05
32	0.766025D-05	0.606620D-05	0.234878D-04	0.146371D-04	0.737198D-05
33	-0.974256D-05	-0.947673D-05	-0.243862D-04	-0.108386D-04	-0.865089D-05
34	0.736318D-05	0.895563D-05	0.264179D-04	-0.211477D-05	0.146304D-04
35	0.950138D-05	0.155051D-04	-0.120957D-04	0.246709D-04	-0.412790D-04
36	-0.230014D-04	0.468710D-06	-0.317443D-04	-0.869658D-05	-0.696281D-05
37	-0.108498D-04	0.311311D-06	-0.287316D-04	-0.109611D-04	0.677027D-05
38	-0.140245D-04	-0.422821D-04	0.565890D-04	-0.224823D-04	0.253873D-04
39	0.402258D-06	-0.725588D-05	-0.108679D-04	-0.522161D-05	0.158337D-04
40	-0.591550D-05	0.200022D-05	0.104251D-05	-0.276921D-05	-0.388196D-04
41	-0.135712D-05	-0.223099D-05	0.492618D-06	-0.309338D-06	0.194597D-05
42	0.130589D-05	0.482072D-05	-0.639448D-05	0.124513D-05	0.133526D-05
43	-0.369496D-05	-0.162578D-04	0.195897D-04	0.110999D-04	0.266276D-04
44	0.508968D-05	0.109666D-04	-0.139999D-04	-0.466873D-05	-0.279859D-04
45	-0.708831D-05	-0.109066D-04	0.442849D-05	-0.899682D-05	0.431091D-04
46	-0.439234D-06	-0.429978D-05	-0.122617D-05	0.547915D-05	0.630206D-05
47	-0.496588D-06	0.576616D-05	0.702070D-05	-0.579187D-05	0.106025D-05
48	0.425074D-05	0.283946D-05	-0.505642D-05	0.252019D-05	-0.148244D-04
49	-0.131278D-04	-0.182857D-04	-0.305281D-05	-0.288080D-04	-0.712333D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.470687D-02				
7	-0.272606D-03	0.195834D-02			
8	-0.439190D-05	0.120160D-03	0.623074D-03		
9	-0.275056D-04	-0.427332D-03	0.554176D-04	0.221318D-02	
10	-0.103398D-04	0.918766D-04	-0.857951D-04	0.847394D-04	0.752436D-03
11	-0.370611D-05	-0.581891D-05	-0.729557D-06	0.556101D-05	0.733941D-06
12	-0.619865D-05	0.485862D-05	-0.194247D-05	-0.833661D-05	-0.528243D-06
13	-0.275495D-05	0.303444D-05	0.848272D-05	-0.299196D-05	-0.564512D-05
14	0.379620D-06	-0.162588D-04	0.329952D-05	0.124536D-04	-0.899626D-05
15	-0.469099D-05	-0.143201D-04	-0.540729D-06	0.279197D-05	0.910528D-05
16	-0.104889D-04	-0.149969D-06	0.284683D-05	-0.654377D-05	0.239031D-05
17	-0.322245D-05	0.303965D-05	0.491903D-06	0.134932D-05	0.288463D-05
18	0.729341D-06	0.240899D-05	0.242745D-05	-0.391625D-05	-0.590855D-05
19	-0.109411D-05	-0.209855D-05	-0.650331D-05	-0.270088D-05	-0.204032D-05
20	-0.523409D-06	-0.600012D-05	0.925003D-06	-0.572892D-05	0.324136D-05
21	0.133980D-04	0.446280D-05	-0.234699D-05	0.103766D-04	0.649200D-05
22	-0.536389D-05	0.501966D-06	-0.185995D-05	0.171574D-05	-0.628406D-05

23	-0.900386D-05	-0.148107D-04	0.356678D-07	-0.423024D-05	-0.169476D-04
24	-0.200114D-04	0.967211D-05	-0.321288D-05	0.947762D-05	0.714036D-05
25	-0.441472D-04	0.336218D-05	0.220240D-04	0.545348D-04	0.468927D-05
26	-0.225593D-04	-0.479536D-05	0.132093D-05	-0.281934D-05	-0.406357D-05
27	0.623627D-05	-0.931893D-05	0.231514D-05	0.113938D-05	0.555686D-06
28	-0.449686D-05	0.279367D-04	0.357493D-05	-0.144477D-05	0.152189D-05
29	0.753583D-05	-0.107165D-04	-0.206874D-05	0.907602D-05	0.247403D-05
30	0.263828D-04	-0.455124D-05	-0.112350D-05	-0.504016D-05	0.391322D-07
31	-0.166924D-04	0.873120D-05	-0.239532D-06	-0.311969D-04	-0.155232D-04
32	0.136381D-03	-0.242090D-03	0.468962D-04	-0.149100D-03	0.143925D-03
33	0.692076D-05	0.487831D-04	-0.390863D-04	-0.121752D-03	-0.185371D-05
34	0.350579D-04	-0.696347D-04	0.641664D-04	-0.159075D-04	-0.420573D-05
35	-0.300913D-04	-0.361846D-04	-0.350807D-04	-0.700674D-05	0.136524D-04
36	-0.313004D-03	-0.418491D-04	-0.894802D-04	-0.328750D-04	0.157888D-04
37	-0.244037D-03	0.146287D-03	0.232252D-04	0.393672D-05	0.762543D-05
38	-0.157780D-03	-0.878471D-04	-0.129693D-03	-0.315370D-03	-0.634528D-05
39	-0.231298D-04	-0.155251D-03	0.219300D-04	-0.139572D-03	0.740046D-04
40	-0.260736D-03	0.171670D-03	0.348912D-04	-0.304277D-03	0.160716D-03
41	0.275167D-04	-0.267984D-05	0.335207D-05	-0.160461D-05	0.712261D-05
42	0.355361D-04	-0.967277D-05	-0.889893D-05	0.180903D-05	0.103103D-04
43	-0.121318D-03	0.379500D-04	0.106622D-04	0.406852D-04	0.382319D-04
44	0.245147D-04	-0.669862D-04	0.166447D-04	-0.102365D-04	-0.187843D-04
45	0.310998D-04	0.577212D-04	-0.207082D-04	-0.335132D-04	0.267289D-05
46	-0.557341D-05	0.207370D-04	0.185076D-04	-0.181005D-06	-0.887310D-05
47	0.732042D-05	-0.583924D-04	-0.189519D-04	-0.310925D-04	0.150925D-04
48	-0.100149D-04	0.934619D-05	0.220705D-04	0.328948D-04	-0.153558D-04
49	0.331558D-03	0.411997D-03	0.105678D-04	-0.963602D-03	0.411631D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.212037D-04				
12	0.589360D-05	0.144003D-04			
13	0.127357D-05	0.625882D-05	0.320697D-04		
14	-0.304922D-05	-0.468855D-05	-0.172622D-05	0.497947D-04	
15	0.153172D-06	-0.267950D-05	-0.102347D-04	0.140004D-04	0.607591D-04
16	-0.150496D-05	-0.344488D-06	0.597708D-05	-0.156588D-04	-0.459241D-04
17	0.173074D-05	0.304127D-05	0.117413D-05	-0.321404D-05	-0.140302D-05
18	0.847602D-06	0.983348D-06	0.576044D-05	-0.227775D-05	-0.479015D-05
19	-0.153375D-05	-0.368502D-06	-0.187483D-05	0.461853D-05	0.149788D-04
20	0.244130D-05	0.117560D-05	0.126765D-05	-0.174968D-05	-0.262132D-05
21	0.290093D-05	0.523352D-05	0.139806D-05	-0.456734D-05	-0.367850D-06
22	0.402727D-06	0.254367D-05	0.112457D-04	0.712673D-07	-0.564258D-05

23	-0.543706D-06	-0.208083D-05	-0.177881D-05	0.864356D-05	0.240002D-04
24	0.828110D-06	0.495841D-06	0.199456D-05	-0.541229D-06	-0.196211D-05
25	-0.758147D-06	-0.255736D-05	0.793368D-06	0.820999D-06	0.310490D-05
26	-0.309273D-05	-0.581322D-05	-0.329091D-05	0.901570D-05	0.288979D-05
27	-0.567555D-06	-0.315908D-05	-0.101646D-04	0.340791D-06	0.118612D-04
28	0.187048D-05	0.672249D-07	0.239719D-05	-0.949267D-05	-0.234015D-04
29	-0.148169D-05	-0.760156D-06	-0.102497D-05	0.155824D-05	0.398724D-05
30	-0.369990D-06	-0.199163D-05	-0.204469D-05	0.608609D-06	0.234677D-05
31	-0.411391D-07	-0.115128D-06	0.256509D-05	0.898622D-06	-0.836257D-05
32	-0.459102D-05	-0.318004D-05	-0.216521D-05	0.202819D-04	0.438789D-05
33	0.738013D-06	-0.249218D-05	-0.820562D-05	-0.504498D-05	-0.221456D-04
34	-0.175186D-04	0.351994D-05	-0.953147D-06	-0.552231D-05	0.114950D-04
35	-0.214379D-05	-0.194426D-05	0.104057D-04	0.310024D-05	-0.104481D-04
36	0.927322D-06	-0.858815D-06	-0.261502D-05	-0.184894D-04	0.104116D-04
37	0.167068D-04	0.493552D-05	0.119801D-04	-0.391192D-04	-0.915307D-05
38	0.896021D-05	-0.465078D-05	0.341819D-04	-0.683712D-05	-0.189211D-04
39	0.513557D-05	-0.744383D-05	0.108473D-04	0.702716D-05	-0.271031D-06
40	-0.302336D-04	-0.221237D-04	0.160967D-04	0.170178D-05	-0.237086D-04
41	0.694290D-06	-0.514463D-06	0.409982D-06	0.572542D-06	-0.110314D-05
42	-0.119770D-05	-0.120179D-05	0.670453D-06	0.865212D-06	0.327334D-05
43	0.845272D-05	-0.890357D-06	-0.644719D-05	-0.901356D-06	0.808515D-06
44	-0.503409D-05	0.134037D-05	0.318473D-05	0.908157D-05	0.673581D-05
45	0.509916D-05	0.103989D-05	-0.463192D-05	-0.148108D-04	-0.203699D-04
46	0.773059D-06	-0.768830D-06	0.204466D-05	0.301164D-05	0.389831D-05
47	0.268269D-05	0.108585D-05	0.612042D-06	0.320468D-05	-0.936606D-06
48	0.803684D-06	-0.338627D-07	-0.164253D-06	-0.175411D-05	0.515012D-05
49	-0.710461D-04	-0.609653D-04	0.556498D-04	0.562058D-05	-0.702098D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.491857D-03				
17	0.607984D-06	0.114777D-04			
18	0.591388D-05	0.274463D-05	0.136630D-04		
19	-0.278287D-04	-0.203390D-05	-0.566947D-05	0.514869D-04	
20	-0.125118D-05	0.154106D-05	0.504393D-05	-0.590314D-05	0.233689D-04
21	-0.429504D-06	0.570454D-05	0.132800D-05	-0.102153D-05	0.962624D-06
22	0.917361D-05	0.168554D-05	0.536478D-05	-0.378034D-05	0.202433D-05
23	-0.435324D-04	-0.146404D-05	-0.315809D-05	0.256282D-04	-0.536173D-05
24	0.990517D-05	0.231051D-05	0.536044D-05	-0.511011D-05	0.104307D-04
25	0.196913D-04	-0.949899D-06	0.263495D-05	-0.165571D-05	0.223124D-05
26	-0.275841D-06	-0.401611D-05	-0.123528D-05	0.102709D-05	-0.150070D-05
27	-0.890341D-05	-0.759087D-06	-0.399938D-05	0.390053D-05	-0.152650D-05



28	0.726039D-04	-0.648937D-06	0.155620D-05	-0.206458D-04	0.157339D-05
29	-0.549648D-05	-0.175111D-05	-0.582373D-05	0.812501D-05	-0.707187D-05
30	-0.154225D-04	-0.132258D-05	-0.496560D-06	-0.104793D-06	-0.970304D-06
31	0.407668D-05	0.138754D-05	0.189705D-05	-0.758359D-05	0.221401D-05
32	0.318872D-04	-0.552449D-05	0.146459D-05	-0.174047D-04	0.173731D-04
33	-0.656161D-05	0.410863D-05	-0.574513D-05	-0.736485D-05	0.251560D-04
34	0.181820D-04	-0.134694D-05	-0.835114D-05	0.171339D-04	-0.190320D-04
35	0.130547D-04	0.358628D-06	0.426215D-05	-0.816054D-05	-0.149343D-05
36	-0.482318D-04	-0.214030D-05	-0.508674D-05	0.107431D-04	-0.129731D-04
37	-0.480333D-04	0.320251D-06	-0.350838D-05	0.132913D-04	-0.170429D-04
38	-0.241020D-04	-0.927913D-05	-0.467859D-05	0.953388D-05	0.774913D-05
39	0.193748D-04	0.969509D-05	-0.150554D-04	-0.193946D-05	-0.749075D-05
40	-0.183328D-03	0.364883D-05	0.340861D-04	0.100370D-06	-0.221722D-05
41	0.101153D-05	-0.316034D-06	0.139580D-05	-0.243961D-06	0.973854D-06
42	0.155825D-06	0.655550D-06	0.152308D-05	-0.307316D-05	0.435916D-07
43	0.529315D-04	-0.225403D-06	-0.193574D-05	0.757915D-05	-0.551442D-05
44	-0.191467D-04	0.171460D-05	-0.349894D-05	-0.500587D-06	0.578421D-05
45	0.323202D-05	-0.234341D-05	0.119683D-05	-0.433857D-05	-0.878204D-05
46	0.146266D-05	-0.125702D-05	0.203545D-05	-0.526949D-05	0.815485D-06
47	-0.118308D-04	0.428529D-05	0.166954D-05	-0.249630D-06	-0.394491D-05
48	-0.211780D-04	0.124406D-05	0.206947D-06	-0.107826D-05	0.212513D-05
49	-0.446718D-03	0.102553D-04	0.555799D-04	-0.955295D-05	-0.301976D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.447666D-04				
22	0.100896D-04	0.549436D-04			
23	-0.105861D-04	-0.174938D-04	0.214825D-03		
24	0.279554D-05	0.116382D-04	-0.147064D-04	0.486695D-04	
25	0.863697D-05	0.349732D-04	-0.304687D-04	0.429850D-04	0.370062D-03
26	-0.894190D-05	-0.229447D-05	0.199660D-05	0.268981D-06	0.131620D-05
27	-0.325175D-05	-0.104682D-04	0.504211D-05	-0.136131D-05	-0.169563D-05
28	-0.565586D-06	0.163379D-05	-0.403760D-04	0.320342D-05	0.273810D-05
29	-0.225518D-05	-0.414712D-05	0.431051D-05	-0.874573D-05	-0.809274D-05
30	-0.857578D-05	-0.219638D-04	0.398699D-04	-0.198852D-04	-0.740978D-04
31	-0.287115D-06	0.581827D-05	-0.131139D-04	0.503710D-05	0.571603D-05
32	0.571518D-06	0.725543D-05	0.301409D-05	0.112844D-04	0.332604D-05
33	-0.920387D-05	0.632866D-05	-0.492114D-04	0.851779D-05	0.230650D-04
34	0.974231D-05	-0.887051D-05	0.547936D-04	-0.154983D-04	-0.582766D-04
35	0.376733D-05	0.102122D-04	-0.499464D-04	-0.332311D-07	0.750959D-05
36	-0.784471D-05	-0.214923D-05	0.167261D-05	0.424881D-06	0.367738D-04
37	-0.482697D-05	-0.205348D-04	-0.563790D-05	-0.732790D-05	-0.830704D-05

38	-0.274063D-04	-0.160600D-04	0.406428D-05	-0.893586D-05	-0.466701D-04
39	-0.282310D-04	-0.198474D-04	0.602769D-05	-0.282538D-04	-0.837076D-04
40	0.352328D-04	0.387869D-04	-0.126902D-03	-0.605164D-04	0.100461D-03
41	-0.761821D-06	0.132266D-05	-0.206156D-05	0.156551D-05	-0.831225D-06
42	-0.390846D-05	0.379186D-05	0.120974D-05	0.256806D-05	0.387686D-05
43	-0.880075D-06	-0.123421D-04	0.150268D-04	-0.474767D-05	-0.166622D-04
44	-0.244171D-06	0.903754D-05	-0.564692D-05	0.140226D-04	0.195962D-04
45	0.667459D-06	-0.499215D-05	0.647821D-05	-0.124472D-04	-0.196948D-04
46	-0.835975D-06	-0.263360D-05	-0.116637D-04	-0.588805D-05	-0.655827D-06
47	0.555941D-06	0.554073D-05	0.371416D-05	0.233678D-05	0.379365D-05
48	-0.206729D-05	-0.333106D-05	0.142876D-04	-0.421513D-05	-0.822870D-05
49	0.647376D-04	0.950218D-04	-0.340568D-03	-0.159258D-03	0.183355D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.387716D-04				
27	0.896066D-05	0.499029D-04			
28	-0.633647D-05	-0.146728D-04	0.189438D-03		
29	0.329501D-05	0.114875D-04	-0.135120D-04	0.388621D-04	
30	0.612965D-05	0.173564D-04	-0.215066D-04	0.194302D-04	0.182597D-03
31	-0.392753D-05	-0.370072D-04	0.666794D-04	-0.283572D-04	-0.632397D-04
32	0.175567D-04	-0.740581D-05	-0.879640D-05	-0.149725D-04	0.104320D-05
33	-0.292953D-05	-0.757065D-07	0.164958D-04	-0.204539D-04	-0.578812D-04
34	-0.256670D-04	0.525306D-05	-0.316629D-04	0.812017D-05	0.374043D-04
35	0.126679D-05	-0.247616D-06	0.949155D-05	0.548554D-05	-0.190552D-04
36	-0.241583D-04	0.168361D-04	-0.122748D-04	0.234540D-04	0.403331D-05
37	-0.195799D-04	0.126712D-04	0.162842D-04	0.728095D-05	-0.738219D-05
38	0.210470D-04	-0.966616D-06	0.168626D-05	-0.812670D-05	0.371070D-04
39	0.128868D-04	-0.555592D-05	-0.113008D-04	-0.129988D-04	0.149714D-04
40	-0.297601D-05	-0.520402D-04	0.105940D-04	-0.399284D-04	-0.625997D-04
41	0.994136D-06	-0.134751D-05	0.294599D-05	-0.157820D-05	-0.188684D-05
42	0.117277D-05	0.305903D-05	-0.903351D-05	0.522178D-05	0.860648D-06
43	0.907388D-05	-0.203710D-05	0.433471D-05	0.646962D-05	0.333819D-04
44	-0.792288D-05	0.368101D-05	-0.572074D-05	0.122422D-05	-0.357724D-04
45	-0.188800D-05	0.591393D-07	0.695607D-05	-0.418224D-05	0.195371D-04
46	-0.884472D-06	0.211328D-05	-0.569245D-06	-0.319229D-05	0.267197D-05
47	0.846007D-06	0.377625D-06	-0.588823D-05	0.762417D-05	0.512978D-05
48	-0.368444D-05	0.159658D-06	-0.383277D-05	-0.434155D-05	0.116891D-04
49	0.582024D-05	-0.130641D-03	0.113096D-04	-0.102886D-03	-0.120550D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.305985D-03				
32	-0.200390D-04	0.613411D-02			
33	0.352383D-04	0.178263D-03	0.412779D-02		
34	0.125347D-04	-0.109863D-03	-0.246802D-02	0.470564D-02	
35	-0.210244D-04	0.179133D-04	0.777734D-04	-0.162411D-03	0.175595D-02
36	-0.354441D-04	-0.622031D-02	-0.209775D-03	0.185771D-03	0.523600D-04
37	0.217571D-04	-0.602348D-02	-0.154647D-03	0.196345D-03	-0.305246D-04
38	-0.651757D-05	-0.315096D-03	-0.167763D-03	0.336974D-03	-0.102908D-04
39	-0.214125D-05	-0.682140D-04	-0.566502D-04	0.253700D-03	0.600806D-04
40	-0.265340D-04	0.660824D-03	0.131204D-03	-0.245577D-04	0.716108D-04
41	0.264121D-05	0.463357D-04	-0.236160D-05	-0.572197D-05	-0.770640D-05
42	-0.114204D-04	0.327697D-04	0.787583D-06	-0.241993D-05	0.560956D-05
43	0.256660D-05	-0.647844D-04	0.120107D-03	-0.175117D-03	-0.299401D-04
44	-0.247715D-05	0.614227D-04	-0.319254D-04	0.126455D-03	0.452106D-04
45	0.600810D-05	-0.103248D-03	-0.531680D-05	-0.915507D-04	-0.555217D-04
46	-0.821285D-05	0.248446D-04	0.352374D-04	-0.556949D-04	-0.738263D-04
47	-0.680488D-05	-0.118968D-04	-0.341554D-04	0.581664D-04	0.179897D-04
48	0.553604D-05	-0.546120D-04	0.687125D-05	-0.266650D-04	-0.159145D-04
49	-0.887816D-04	0.154791D-02	0.273031D-03	0.131032D-03	0.165756D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.888800D-02				
37	0.625231D-02	0.790595D-02			
38	0.537661D-03	0.287774D-03	0.963933D-02		
39	0.104615D-03	0.736838D-04	0.594873D-02	0.817945D-02	
40	-0.767468D-03	-0.990276D-03	-0.742803D-03	-0.706106D-03	0.245565D-01
41	-0.621218D-04	-0.351723D-04	0.392654D-05	-0.301361D-05	0.192461D-04
42	-0.300246D-04	-0.228222D-04	-0.265330D-03	-0.721991D-04	-0.152003D-03
43	0.123653D-03	0.143350D-03	-0.808867D-04	0.844915D-05	-0.214106D-03
44	-0.486511D-04	-0.923334D-04	0.238780D-04	-0.462410D-05	0.248357D-04
45	0.690444D-04	0.118732D-03	0.780370D-04	-0.676398D-06	0.195726D-03
46	-0.347017D-04	-0.693953D-04	0.281763D-04	0.499681D-04	-0.483925D-04
47	0.183346D-04	0.357614D-04	0.199382D-04	0.319135D-04	-0.134985D-03
48	0.742022D-04	0.419653D-04	-0.346046D-04	-0.555196D-04	-0.665156D-06
49	-0.181709D-02	-0.239600D-02	0.401962D-02	0.411058D-02	0.588424D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

41	42	43	44	45
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41	0.303160D-04				
42	-0.471728D-06	0.149794D-03			
43	0.229280D-05	0.553409D-05	0.193529D-02		
44	-0.157022D-06	-0.873960D-05	-0.115456D-02	0.143784D-02	
45	-0.725619D-05	0.129986D-05	0.717844D-03	-0.137724D-02	0.267667D-02
46	0.196546D-05	-0.492659D-05	0.160493D-04	-0.417414D-04	0.697687D-05
47	-0.270708D-07	0.139346D-04	-0.255528D-05	0.223193D-04	-0.197018D-04
48	-0.179206D-05	0.123690D-05	-0.561358D-05	-0.209116D-04	0.381513D-04
49	0.707720D-04	-0.400313D-03	-0.578588D-03	0.866344D-04	0.500771D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.402626D-03			
47	-0.240002D-03	0.456337D-03		
48	-0.686246D-05	-0.326949D-04	0.311293D-03	
49	-0.891037D-04	-0.291321D-03	-0.432975D-04	0.147025D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.235	1.000			
3	-0.064	-0.180	1.000		
4	0.038	0.217	-0.113	1.000	
5	-0.153	-0.272	0.180	-0.182	1.000
6	0.025	0.005	-0.025	-0.040	0.023
7	-0.044	0.010	0.008	0.008	-0.041
8	0.035	0.023	-0.004	-0.015	-0.025
9	0.008	-0.059	0.012	-0.021	0.033
10	-0.007	-0.015	0.023	-0.029	0.016
11	0.008	0.000	0.044	-0.006	0.000
12	-0.033	-0.001	-0.008	-0.012	-0.006
13	0.025	0.031	-0.060	-0.011	-0.010
14	0.014	-0.026	0.003	-0.022	-0.019
15	0.015	0.020	0.049	0.026	-0.020
16	-0.011	0.001	-0.028	-0.007	0.031
17	-0.070	-0.010	-0.004	0.000	0.011
18	-0.028	0.039	-0.046	0.030	0.005
19	-0.015	0.005	0.030	0.022	-0.005
20	-0.011	0.004	0.021	-0.030	0.010

21	0.010	0.007	-0.034	-0.019	-0.002
22	-0.020	0.001	-0.034	-0.028	-0.034
23	0.024	-0.004	-0.005	0.042	-0.017
24	0.021	-0.001	0.014	0.020	0.006
25	-0.027	0.010	-0.020	0.047	-0.010
26	0.037	-0.047	0.030	0.011	0.022
27	-0.006	-0.005	0.033	0.018	0.005
28	-0.004	0.025	-0.031	0.005	-0.016
29	0.020	0.005	0.026	-0.027	-0.009
30	0.019	-0.025	0.009	-0.017	0.005
31	-0.051	0.001	0.003	0.008	-0.007
32	0.015	0.010	0.020	0.026	0.007
33	-0.023	-0.020	-0.026	-0.024	-0.010
34	0.016	0.017	0.026	-0.004	0.016
35	0.034	0.049	-0.020	0.083	-0.076
36	-0.037	0.001	-0.023	-0.013	-0.006
37	-0.018	0.000	-0.022	-0.017	0.006
38	-0.022	-0.057	0.039	-0.032	0.020
39	0.001	-0.011	-0.008	-0.008	0.013
40	-0.006	0.002	0.000	-0.002	-0.019
41	-0.037	-0.054	0.006	-0.008	0.027
42	0.016	0.052	-0.036	0.014	0.008
43	-0.013	-0.049	0.030	0.036	0.046
44	0.020	0.038	-0.025	-0.017	-0.057
45	-0.021	-0.028	0.006	-0.025	0.064
46	-0.003	-0.028	-0.004	0.039	0.024
47	-0.004	0.036	0.022	-0.038	0.004
48	0.036	0.021	-0.020	0.020	-0.064
49	-0.005	-0.006	-0.001	-0.011	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.090	1.000			
8	-0.003	0.109	1.000		
9	-0.009	-0.205	0.047	1.000	
10	-0.005	0.076	-0.125	0.066	1.000
11	-0.012	-0.029	-0.006	0.026	0.006
12	-0.024	0.029	-0.021	-0.047	-0.005
13	-0.007	0.012	0.060	-0.011	-0.036
14	0.001	-0.052	0.019	0.038	-0.046
15	-0.009	-0.042	-0.003	0.008	0.043

16	-0.007	0.000	0.005	-0.006	0.004
17	-0.014	0.020	0.006	0.008	0.031
18	0.003	0.015	0.026	-0.023	-0.058
19	-0.002	-0.007	-0.036	-0.008	-0.010
20	-0.002	-0.028	0.008	-0.025	0.024
21	0.029	0.015	-0.014	0.033	0.035
22	-0.011	0.002	-0.010	0.005	-0.031
23	-0.009	-0.023	0.000	-0.006	-0.042
24	-0.042	0.031	-0.018	0.029	0.037
25	-0.033	0.004	0.046	0.060	0.009
26	-0.053	-0.017	0.008	-0.010	-0.024
27	0.013	-0.030	0.013	0.003	0.003
28	-0.005	0.046	0.010	-0.002	0.004
29	0.018	-0.039	-0.013	0.031	0.014
30	0.028	-0.008	-0.003	-0.008	0.000
31	-0.014	0.011	-0.001	-0.038	-0.032
32	0.025	-0.070	0.024	-0.040	0.067
33	0.002	0.017	-0.024	-0.040	-0.001
34	0.007	-0.023	0.037	-0.005	-0.002
35	-0.010	-0.020	-0.034	-0.004	0.012
36	-0.048	-0.010	-0.038	-0.007	0.006
37	-0.040	0.037	0.010	0.001	0.003
38	-0.023	-0.020	-0.053	-0.068	-0.002
39	-0.004	-0.039	0.010	-0.033	0.030
40	-0.024	0.025	0.009	-0.041	0.037
41	0.073	-0.011	0.024	-0.006	0.047
42	0.042	-0.018	-0.029	0.003	0.031
43	-0.040	0.019	0.010	0.020	0.032
44	0.009	-0.040	0.018	-0.006	-0.018
45	0.009	0.025	-0.016	-0.014	0.002
46	-0.004	0.023	0.037	0.000	-0.016
47	0.005	-0.062	-0.036	-0.031	0.026
48	-0.008	0.012	0.050	0.040	-0.032
49	0.013	0.024	0.001	-0.053	0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.337	1.000			
13	0.049	0.291	1.000		
14	-0.094	-0.175	-0.043	1.000	
15	0.004	-0.091	-0.232	0.255	1.000

16	-0.015	-0.004	0.048	-0.100	-0.266
17	0.111	0.237	0.061	-0.134	-0.053
18	0.050	0.070	0.275	-0.087	-0.166
19	-0.046	-0.014	-0.046	0.091	0.268
20	0.110	0.064	0.046	-0.051	-0.070
21	0.094	0.206	0.037	-0.097	-0.007
22	0.012	0.090	0.268	0.001	-0.098
23	-0.008	-0.037	-0.021	0.084	0.210
24	0.026	0.019	0.050	-0.011	-0.036
25	-0.009	-0.035	0.007	0.006	0.021
26	-0.108	-0.246	-0.093	0.205	0.060
27	-0.017	-0.118	-0.254	0.007	0.215
28	0.030	0.001	0.031	-0.098	-0.218
29	-0.052	-0.032	-0.029	0.035	0.082
30	-0.006	-0.039	-0.027	0.006	0.022
31	-0.001	-0.002	0.026	0.007	-0.061
32	-0.013	-0.011	-0.005	0.037	0.007
33	0.002	-0.010	-0.023	-0.011	-0.044
34	-0.055	0.014	-0.002	-0.011	0.021
35	-0.011	-0.012	0.044	0.010	-0.032
36	0.002	-0.002	-0.005	-0.028	0.014
37	0.041	0.015	0.024	-0.062	-0.013
38	0.020	-0.012	0.061	-0.010	-0.025
39	0.012	-0.022	0.021	0.011	0.000
40	-0.042	-0.037	0.018	0.002	-0.019
41	0.027	-0.025	0.013	0.015	-0.026
42	-0.021	-0.026	0.010	0.010	0.034
43	0.042	-0.005	-0.026	-0.003	0.002
44	-0.029	0.009	0.015	0.034	0.023
45	0.021	0.005	-0.016	-0.041	-0.051
46	0.008	-0.010	0.018	0.021	0.025
47	0.027	0.013	0.005	0.021	-0.006
48	0.010	-0.001	-0.002	-0.014	0.037
49	-0.040	-0.042	0.026	0.002	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.008	1.000			
18	0.072	0.219	1.000		
19	-0.175	-0.084	-0.214	1.000	
20	-0.012	0.094	0.282	-0.170	1.000

21	-0.003	0.252	0.054	-0.021	0.030
22	0.056	0.067	0.196	-0.071	0.056
23	-0.134	-0.029	-0.058	0.244	-0.076
24	0.064	0.098	0.208	-0.102	0.309
25	0.046	-0.015	0.037	-0.012	0.024
26	-0.002	-0.190	-0.054	0.023	-0.050
27	-0.057	-0.032	-0.153	0.077	-0.045
28	0.238	-0.014	0.031	-0.209	0.024
29	-0.040	-0.083	-0.253	0.182	-0.235
30	-0.051	-0.029	-0.010	-0.001	-0.015
31	0.011	0.023	0.029	-0.060	0.026
32	0.018	-0.021	0.005	-0.031	0.046
33	-0.005	0.019	-0.024	-0.016	0.081
34	0.012	-0.006	-0.033	0.035	-0.057
35	0.014	0.003	0.028	-0.027	-0.007
36	-0.023	-0.007	-0.015	0.016	-0.028
37	-0.024	0.001	-0.011	0.021	-0.040
38	-0.011	-0.028	-0.013	0.014	0.016
39	0.010	0.032	-0.045	-0.003	-0.017
40	-0.053	0.007	0.042	0.000	-0.003
41	0.008	-0.017	0.069	-0.006	0.037
42	0.001	0.016	0.034	-0.035	0.001
43	0.054	-0.002	-0.012	0.024	-0.026
44	-0.023	0.013	-0.025	-0.002	0.032
45	0.003	-0.013	0.006	-0.012	-0.035
46	0.003	-0.018	0.027	-0.037	0.008
47	-0.025	0.059	0.021	-0.002	-0.038
48	-0.054	0.021	0.003	-0.009	0.025
49	-0.053	0.008	0.039	-0.003	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.203	1.000			
23	-0.108	-0.161	1.000		
24	0.060	0.225	-0.144	1.000	
25	0.067	0.245	-0.108	0.320	1.000
26	-0.215	-0.050	0.022	0.006	0.011
27	-0.069	-0.200	0.049	-0.028	-0.012
28	-0.006	0.016	-0.200	0.033	0.010
29	-0.054	-0.090	0.047	-0.201	-0.067
30	-0.095	-0.219	0.201	-0.211	-0.285



31	-0.002	0.045	-0.051	0.041	0.017
32	0.001	0.012	0.003	0.021	0.002
33	-0.021	0.013	-0.052	0.019	0.019
34	0.021	-0.017	0.054	-0.032	-0.044
35	0.013	0.033	-0.081	0.000	0.009
36	-0.012	-0.003	0.001	0.001	0.020
37	-0.008	-0.031	-0.004	-0.012	-0.005
38	-0.042	-0.022	0.003	-0.013	-0.025
39	-0.047	-0.030	0.005	-0.045	-0.048
40	0.034	0.033	-0.055	-0.055	0.033
41	-0.021	0.032	-0.026	0.041	-0.008
42	-0.048	0.042	0.007	0.030	0.016
43	-0.003	-0.038	0.023	-0.015	-0.020
44	-0.001	0.032	-0.010	0.053	0.027
45	0.002	-0.013	0.009	-0.034	-0.020
46	-0.006	-0.018	-0.040	-0.042	-0.002
47	0.004	0.035	0.012	0.016	0.009
48	-0.018	-0.025	0.055	-0.034	-0.024
49	0.025	0.033	-0.061	-0.060	0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.204	1.000			
28	-0.074	-0.151	1.000		
29	0.085	0.261	-0.157	1.000	
30	0.073	0.182	-0.116	0.231	1.000
31	-0.036	-0.299	0.277	-0.260	-0.268
32	0.036	-0.013	-0.008	-0.031	0.001
33	-0.007	0.000	0.019	-0.051	-0.067
34	-0.060	0.011	-0.034	0.019	0.040
35	0.005	-0.001	0.016	0.021	-0.034
36	-0.041	0.025	-0.009	0.040	0.003
37	-0.035	0.020	0.013	0.013	-0.006
38	0.034	-0.001	0.001	-0.013	0.028
39	0.023	-0.009	-0.009	-0.023	0.012
40	-0.003	-0.047	0.005	-0.041	-0.030
41	0.029	-0.035	0.039	-0.046	-0.025
42	0.015	0.035	-0.054	0.068	0.005
43	0.033	-0.007	0.007	0.024	0.056
44	-0.034	0.014	-0.011	0.005	-0.070
45	-0.006	0.000	0.010	-0.013	0.028

46	-0.007	0.015	-0.002	-0.026	0.010
47	0.006	0.003	-0.020	0.057	0.018
48	-0.034	0.001	-0.016	-0.039	0.049
49	0.002	-0.048	0.002	-0.043	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.015	1.000			
33	0.031	0.035	1.000		
34	0.010	-0.020	-0.560	1.000	
35	-0.029	0.005	0.029	-0.057	1.000
36	-0.021	-0.842	-0.035	0.029	0.013
37	0.014	-0.865	-0.027	0.032	-0.008
38	-0.004	-0.041	-0.027	0.050	-0.003
39	-0.001	-0.010	-0.010	0.041	0.016
40	-0.010	0.054	0.013	-0.002	0.011
41	0.027	0.107	-0.007	-0.015	-0.033
42	-0.053	0.034	0.001	-0.003	0.011
43	0.003	-0.019	0.042	-0.058	-0.016
44	-0.004	0.021	-0.013	0.049	0.028
45	0.007	-0.025	-0.002	-0.026	-0.026
46	-0.023	0.016	0.027	-0.040	-0.088
47	-0.018	-0.007	-0.025	0.040	0.020
48	0.018	-0.040	0.006	-0.022	-0.022
49	-0.013	0.052	0.011	0.005	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.746	1.000			
38	0.058	0.033	1.000		
39	0.012	0.009	0.670	1.000	
40	-0.052	-0.071	-0.048	-0.050	1.000
41	-0.120	-0.072	0.007	-0.006	0.022
42	-0.026	-0.021	-0.221	-0.065	-0.079
43	0.030	0.037	-0.019	0.002	-0.031
44	-0.014	-0.027	0.006	-0.001	0.004
45	0.014	0.026	0.015	0.000	0.024
46	-0.018	-0.039	0.014	0.028	-0.015

47	0.009	0.019	0.010	0.017	-0.040
48	0.045	0.027	-0.020	-0.035	0.000
49	-0.050	-0.070	0.107	0.119	0.979

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.007	1.000			
43	0.009	0.010	1.000		
44	-0.001	-0.019	-0.692	1.000	
45	-0.025	0.002	0.315	-0.702	1.000
46	0.018	-0.020	0.018	-0.055	0.007
47	0.000	0.053	-0.003	0.028	-0.018
48	-0.018	0.006	-0.007	-0.031	0.042
49	0.034	-0.085	-0.034	0.006	0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.560	1.000		
48	-0.019	-0.087	1.000	
49	-0.012	-0.036	-0.006	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.006	32
200	1.017	37
300	1.004	40
400	1.007	32

500	1.011	36
600	1.017	36
700	1.012	36
800	1.003	7
900	1.004	7
1000	1.002	49

This is the interaction between latent profile categories and role clarity on worsening of physical health

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.947	0.947	0.947	0.947	
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.915			
BULLY15	0.915	0.915		
PRESS15	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16

Category 1	0.881	4884.000
Category 2	0.119	662.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	4.120	-1.246	1.000	2.40%	4.000	4.000	4.000
5077.000	0.861	1.673	5.000	38.74%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49

MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.968	0.069	0.000	0.843	1.111	*
CHOICE15	-0.069	0.025	0.001	-0.121	-0.022	*
PRESS15	-0.034	0.026	0.113	-0.082	0.022	
BULLY15	0.026	0.047	0.283	-0.067	0.119	
KES15	0.226	0.044	0.000	0.139	0.313	*
KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.104	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.085	0.114	*
DUTIES15	-0.102	0.007	0.000	-0.115	-0.087	*
PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.022	*
BULLY15	0.012	0.003	0.000	0.005	0.019	*
PRESS15	0.039	0.007	0.000	0.026	0.052	*
DUTIES15	-0.035	0.006	0.000	-0.048	-0.023	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15	-0.088	0.015	0.000	-0.117	-0.058	*
DUTIES15	0.172	0.014	0.000	0.144	0.200	*
BULLY15 WITH						
PRESS15	0.105	0.007	0.000	0.091	0.119	*
DUTIES15	-0.074	0.006	0.000	-0.087	-0.062	*
PRESS15 WITH						
DUTIES15	-0.180	0.014	0.000	-0.208	-0.155	*
Means						
PHY15	0.003	0.007	0.353	-0.010	0.016	



KES15	0.001	0.007	0.435	-0.013	0.016	
CHOICE15	-0.001	0.015	0.468	-0.031	0.028	
BULLY15	0.000	0.007	0.490	-0.014	0.014	
PRESS15	0.001	0.014	0.478	-0.025	0.027	
Variances						
PHY15	0.233	0.005	0.000	0.224	0.243	*
KES15	0.289	0.006	0.000	0.279	0.301	*
CHOICE15	1.083	0.022	0.000	1.041	1.127	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.003	0.020	0.000	0.965	1.044	*
DUTIES15	0.842	0.017	0.000	0.811	0.879	*
Between Level						
S1	ON					
CLU2		-0.097	0.102	0.166	-0.292	0.107
CLU3		-0.119	0.095	0.113	-0.303	0.066
PHYCAT16	ON					
CLU2		-0.190	0.098	0.011	-0.406	-0.019
CLU3		-0.017	0.091	0.429	-0.197	0.155
DUTIES15		-0.201	0.256	0.206	-0.710	0.299
CLU2	WITH					
CLU3		-0.137	0.038	0.000	-0.228	-0.079
DUTIES15		0.014	0.015	0.154	-0.015	0.046
CLU3	WITH					
DUTIES15		-0.011	0.016	0.238	-0.045	0.021
Means						
CLU2		0.309	0.064	0.000	0.182	0.440
CLU3		0.447	0.069	0.000	0.308	0.579
DUTIES15		4.147	0.032	0.000	4.084	4.209
Intercepts						
S1		0.062	0.082	0.218	-0.098	0.231
Thresholds						
PHYCAT16\$1		0.437	1.062	0.353	-1.669	2.498
Variances						
CLU2		0.230	0.044	0.000	0.164	0.334

CLU3	0.262	0.051	0.000	0.189	0.390	*
DUTIES15	0.041	0.009	0.000	0.027	0.062	*
Residual Variances						
PHYCAT16	0.015	0.012	0.000	0.001	0.049	*
S1	0.008	0.010	0.000	0.000	0.038	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   PHYCAT16 ON						
DUTIES15	-0.017	0.027	0.266	-0.069	0.035	
PHYCAT16 ON						
PHY15	0.415	0.024	0.000	0.365	0.461	*
CHOICE15	-0.064	0.023	0.003	-0.109	-0.018	*
PRESS15	-0.029	0.023	0.106	-0.074	0.017	
BULLY15	0.012	0.021	0.289	-0.029	0.053	
KES15	0.107	0.021	0.000	0.066	0.148	*
KES15 WITH						
PHY15	0.198	0.014	0.000	0.171	0.225	*
CHOICE15	-0.159	0.013	0.000	-0.186	-0.133	*
BULLY15	0.219	0.013	0.000	0.192	0.244	*
PRESS15	0.186	0.013	0.000	0.159	0.211	*
DUTIES15	-0.207	0.013	0.000	-0.232	-0.179	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.045	*
BULLY15	0.050	0.014	0.000	0.021	0.078	*
PRESS15	0.080	0.014	0.000	0.052	0.106	*
DUTIES15	-0.080	0.014	0.000	-0.107	-0.053	*
CHOICE15 WITH						
BULLY15	-0.114	0.014	0.000	-0.141	-0.087	*
PRESS15	-0.084	0.014	0.000	-0.111	-0.056	*

DUTIES15	0.180	0.014	0.000	0.152	0.207	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.188	0.240	*
DUTIES15	-0.165	0.013	0.000	-0.193	-0.139	*
PRESS15 WITH						
DUTIES15	-0.196	0.014	0.000	-0.223	-0.168	*
Means						
PHY15	0.005	0.014	0.369	-0.022	0.032	
KES15	0.003	0.014	0.430	-0.025	0.030	
CHOICE15	-0.001	0.014	0.466	-0.029	0.026	
BULLY15	0.001	0.015	0.479	-0.028	0.029	
PRESS15	0.000	0.014	0.486	-0.026	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	-0.424	0.410	0.166	-1.044	0.577	
CLU3	-0.547	0.388	0.113	-1.118	0.367	
PHYCAT16 ON						
CLU2	-0.554	0.237	0.011	-0.955	-0.058	*
CLU3	-0.053	0.266	0.429	-0.559	0.498	
DUTIES15	-0.249	0.280	0.206	-0.711	0.358	
CLU2 WITH						
CLU3	-0.565	0.086	0.000	-0.715	-0.378	*
DUTIES15	0.150	0.145	0.154	-0.153	0.422	
CLU3 WITH						
DUTIES15	-0.107	0.145	0.238	-0.380	0.182	
Means						
CLU2	0.648	0.143	0.000	0.364	0.927	*

CLU3	0.878	0.156	0.000	0.559	1.167	*
DUTIES15	20.612	2.243	0.000	16.740	25.327	*
Intercepts						
S1	0.542	0.703	0.218	-1.319	1.577	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.500	0.205	0.000	0.093	0.881	*
S1	0.665	0.256	0.000	0.077	0.988	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.223	0.022	0.000	0.183	0.268

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.500	0.205	0.000	0.119	0.907

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.335	0.256	0.000	0.012	0.923

#### TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
0

NU  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15  
0      0      0      0      0

NU  
PRESS15      DUTIES15  
0      0

LAMBDA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA  
PRESS15      DUTIES15

PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA  
PHYCAT16      PHY15      KES15      CHOICE15      BULLY15

PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u>          </u>
DUTIES15	0	0

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA

PRESS15	DUTIES15
<u>5</u>	<u>0</u>

BETA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0
KES15	0	0	0	0
CHOICE15	0	0	0	0
BULLY15	0	0	0	0
PRESS15	0	0	0	0
DUTIES15	0	0	0	0

BETA

PRESS15	DUTIES15
<u>          </u>	<u>          </u>

PHYCAT16	10	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
PHYCAT16	
<hr/>	
49	

NU			
PHYCAT16	CLU2	CLU3	DUTIES15
<hr/>	<hr/>	<hr/>	<hr/>
0	0	0	0

LAMBDA

	S1	PHYCAT16	CLU2	CLU3	DUTIES15
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA					
	PHYCAT16	CLU2	CLU3	DUTIES15	
PHYCAT16	0				
CLU2	0	0			
CLU3	0	0	0		
DUTIES15	0	0	0	0	

ALPHA					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
	32	0	33	34	35

BETA					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
S1	0	36	37	0	
PHYCAT16	0	38	39	40	
CLU2	0	0	0	0	
CLU3	0	0	0	0	
DUTIES15	0	0	0	0	

PSI					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
S1	41				
PHYCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
DUTIES15	0	0	46	47	48

STARTING VALUES FOR WITHIN



TAU
PHYCAT16
<hr/>
0.000

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

LAMBDA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	
PRESS15	0.000		
DUTIES15	0.000	0.000	

ALPHA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA			
	PRESS15	DUTIES15	
	0.000	0.000	

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU	
	PHYCAT16
	1.110

NU			
PHYCAT16	CLU2	CLU3	DUTIES15
<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000

LAMBDA					
	S1	PHYCAT16	CLU2	CLU3	DUTIES15
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	1.000

THETA				
	PHYCAT16	CLU2	CLU3	DUTIES15
PHYCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
DUTIES15	0.000	0.000	0.000	0.000

ALPHA					
	S1	PHYCAT16	CLU2	CLU3	DUTIES15
	0.000	0.000	0.406	0.471	4.120

BETA					
	S1	PHYCAT16	CLU2	CLU3	DUTIES15
S1	0.000	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI					
	S1	PHYCAT16	CLU2	CLU3	DUTIES15
S1	1.000				
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.121		
CLU3	0.000	0.000	0.000	0.125	
DUTIES15	0.000	0.000	0.000	0.000	0.430

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361

Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.434200D-04				
2	0.107159D-04	0.559069D-04			
3	-0.507738D-05	-0.189159D-04	0.214456D-03		
4	0.104642D-05	0.111164D-04	-0.112837D-04	0.501020D-04	
5	0.275580D-05	0.150162D-04	-0.196342D-04	0.216261D-04	0.185192D-03
6	0.128867D-04	0.655868D-05	-0.304106D-04	-0.158185D-04	-0.188700D-05
7	-0.141099D-04	0.576702D-05	-0.105665D-05	0.260754D-05	-0.231016D-04
8	0.556027D-05	0.235379D-05	0.112067D-06	-0.359111D-05	-0.904289D-05
9	0.300435D-05	-0.144454D-04	-0.332787D-05	-0.278961D-05	0.742688D-05
10	-0.466255D-05	-0.172249D-05	0.228747D-05	-0.231299D-05	0.432768D-05
11	-0.207478D-07	-0.670450D-06	0.373384D-05	-0.758475D-06	-0.149146D-05
12	-0.873795D-06	-0.163286D-06	-0.165589D-06	-0.468060D-06	-0.852480D-06
13	0.918155D-06	0.125533D-05	-0.485950D-05	-0.599640D-06	-0.459860D-06
14	0.676429D-06	-0.116352D-05	-0.538762D-08	-0.885073D-06	-0.138897D-05
15	0.764262D-06	0.105052D-05	0.611168D-05	0.151915D-05	0.108571D-05
16	-0.126781D-05	0.126223D-05	-0.100335D-04	-0.402731D-06	0.949549D-05
17	-0.164506D-05	-0.448072D-06	0.125933D-06	-0.198286D-06	0.864894D-06
18	-0.719148D-06	0.100617D-05	-0.228146D-05	0.670703D-06	0.779068D-06
19	-0.786559D-06	0.103936D-07	0.353757D-05	0.100546D-05	0.126888D-06
20	-0.387154D-06	0.457510D-07	0.155853D-05	-0.111753D-05	0.115450D-07
21	0.726883D-06	0.901391D-06	-0.303257D-05	-0.692550D-06	0.176131D-05
22	-0.940008D-06	0.357566D-06	-0.335358D-05	-0.167181D-05	-0.159933D-05
23	0.231743D-05	-0.203205D-05	-0.630829D-07	0.396981D-05	-0.125443D-06
24	0.126173D-05	0.544488D-06	0.111480D-05	0.135994D-05	0.199398D-05
25	-0.296406D-05	0.260460D-05	-0.511439D-05	0.661772D-05	0.431017D-05
26	0.119622D-05	-0.276129D-05	0.289468D-05	0.216944D-06	0.186758D-05
27	-0.514014D-06	-0.119806D-05	0.415521D-05	0.503313D-06	0.139852D-05

28	-0.321417D-06	0.373347D-05	-0.692341D-05	0.442490D-06	-0.463690D-05
29	0.491578D-06	-0.638401D-06	0.326454D-05	-0.171078D-05	-0.495528D-06
30	0.846270D-06	-0.357885D-05	0.112451D-05	-0.107348D-05	-0.361107D-05
31	-0.563868D-05	0.119949D-05	-0.538348D-06	0.132039D-05	-0.346200D-05
32	0.138220D-04	0.512200D-05	0.305603D-04	-0.407059D-06	0.651356D-05
33	-0.694935D-05	-0.971905D-06	-0.346139D-04	-0.370670D-05	-0.627613D-05
34	0.582590D-05	0.388268D-05	0.330606D-04	-0.662112D-05	0.140285D-04
35	-0.807691D-05	-0.248022D-04	0.350452D-04	-0.106989D-04	-0.382954D-04
36	-0.288773D-04	0.743361D-05	-0.222493D-04	0.687971D-05	0.104431D-04
37	-0.110112D-04	-0.425140D-05	-0.400222D-04	-0.136459D-05	0.737835D-05
38	-0.148791D-04	-0.413589D-04	0.500053D-04	-0.241330D-04	0.548602D-05
39	-0.150355D-05	-0.103068D-04	0.664766D-05	-0.857172D-05	0.220453D-04
40	0.160495D-04	0.266276D-04	0.957345D-04	0.557845D-04	0.200855D-04
41	0.810749D-06	-0.445320D-05	0.264106D-06	-0.490014D-06	-0.355095D-05
42	0.144588D-05	0.375691D-05	-0.529552D-05	0.202287D-05	0.610664D-05
43	-0.403693D-05	-0.156423D-04	0.205657D-04	0.125242D-04	0.189793D-04
44	0.491649D-05	0.106988D-04	-0.126499D-04	-0.586888D-05	-0.208124D-04
45	-0.587433D-05	-0.854935D-05	-0.222647D-05	-0.614689D-05	0.285886D-04
46	0.551250D-06	-0.437213D-05	-0.326633D-05	0.357470D-05	0.583907D-05
47	-0.112983D-05	0.461909D-05	0.808678D-05	-0.436211D-05	-0.305187D-05
48	0.145449D-05	0.753179D-06	-0.200313D-05	0.259153D-06	-0.739543D-05
49	0.679346D-04	0.875302D-04	0.391724D-03	0.211683D-03	0.996729D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.477537D-02				
7	-0.289424D-03	0.192983D-02			
8	-0.698971D-05	0.120437D-03	0.617478D-03		
9	-0.359507D-04	-0.418360D-03	0.537777D-04	0.223237D-02	
10	-0.151025D-03	-0.115860D-03	0.285501D-04	-0.207422D-03	0.687617D-03
11	-0.146759D-05	-0.444788D-05	-0.163421D-05	0.774402D-05	-0.163643D-05
12	-0.575446D-05	0.338705D-05	-0.136931D-05	-0.102233D-04	-0.261536D-06
13	-0.376742D-05	0.136055D-05	0.870362D-05	-0.307447D-05	-0.106527D-08
14	-0.397265D-06	-0.173168D-04	0.363302D-05	0.100132D-04	-0.544847D-05
15	-0.735844D-05	-0.120727D-04	-0.371779D-06	0.563294D-05	0.385993D-05
16	-0.108432D-04	-0.849897D-05	0.541469D-05	-0.221028D-04	0.130887D-04
17	-0.300035D-05	0.159773D-05	0.134541D-05	0.216187D-06	0.420045D-06
18	0.819305D-06	0.333244D-05	0.173203D-05	-0.260540D-05	-0.450386D-05
19	-0.141140D-05	-0.418977D-05	-0.605505D-05	-0.415005D-05	0.461269D-08
20	0.143692D-05	-0.245615D-05	-0.512914D-06	-0.215529D-05	0.194753D-05
21	0.125680D-04	0.221224D-05	-0.876100D-06	0.922212D-05	0.141123D-05
22	-0.882402D-05	0.126140D-05	-0.129192D-05	0.878857D-06	-0.743134D-05

23	-0.950831D-05	-0.161608D-04	-0.103584D-05	-0.100949D-04	-0.371006D-05
24	-0.185164D-04	0.128974D-04	-0.312664D-05	0.903746D-05	0.337251D-05
25	-0.484080D-04	0.105776D-04	0.201966D-04	0.584171D-04	0.667487D-05
26	-0.216682D-04	-0.350073D-05	0.598833D-06	-0.951990D-06	0.273438D-05
27	0.976409D-05	-0.846280D-05	0.174147D-05	0.480054D-06	0.196777D-05
28	-0.665490D-05	0.203857D-04	0.560272D-05	-0.208060D-05	-0.100960D-07
29	0.555980D-05	-0.141531D-04	-0.192150D-05	0.572376D-05	0.739454D-05
30	0.295149D-04	-0.108935D-04	-0.173531D-05	-0.986861D-05	-0.102760D-05
31	-0.177613D-04	0.772313D-05	0.159153D-05	-0.315156D-04	0.305751D-05
32	0.229061D-03	-0.474268D-04	-0.579394D-04	0.480679D-04	0.155501D-03
33	-0.985739D-05	0.780611D-04	-0.444225D-04	-0.108015D-03	0.110803D-04
34	0.401741D-04	-0.744670D-04	0.679885D-04	-0.174803D-04	0.511342D-05
35	-0.284350D-04	0.922429D-07	-0.270561D-04	-0.232119D-06	0.121941D-04
36	-0.337808D-03	0.117249D-03	-0.849089D-04	0.592575D-04	0.610032D-07
37	-0.282571D-03	0.260562D-03	0.378119D-05	0.176474D-03	-0.570296D-04
38	-0.134095D-03	-0.326917D-04	-0.135443D-03	-0.315831D-03	-0.381216D-04
39	-0.377037D-04	-0.105991D-03	0.275730D-04	-0.118381D-03	-0.398427D-04
40	-0.190251D-03	0.126054D-03	-0.127874D-03	0.407013D-03	0.977866D-04
41	0.513783D-04	-0.706457D-05	-0.177647D-05	-0.329690D-04	0.836862D-05
42	0.356099D-04	-0.156996D-04	-0.880162D-05	0.939951D-05	0.126974D-04
43	-0.135639D-03	0.408818D-04	0.185849D-04	0.423921D-04	0.307307D-04
44	0.336116D-04	-0.725439D-04	0.602292D-05	-0.172905D-04	0.133865D-04
45	0.243659D-04	0.604000D-04	-0.149922D-04	-0.224440D-04	0.250106D-05
46	-0.122554D-05	0.154285D-04	0.177552D-04	-0.247192D-05	-0.890894D-05
47	-0.394717D-05	-0.431668D-04	-0.156534D-04	-0.134972D-04	0.289086D-05
48	0.146684D-05	0.509101D-05	0.126127D-04	0.163495D-04	-0.952644D-05
49	0.186317D-03	0.541997D-03	-0.600626D-03	0.145978D-02	0.308634D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	11	12	13	14	15
11	0.212112D-04				
12	0.588618D-05	0.143785D-04			
13	0.126479D-05	0.625616D-05	0.320914D-04		
14	-0.303131D-05	-0.466926D-05	-0.176721D-05	0.498053D-04	
15	0.164827D-06	-0.265960D-05	-0.102725D-04	0.139734D-04	0.607637D-04
16	-0.151377D-05	-0.366191D-06	0.600695D-05	-0.156706D-04	-0.459996D-04
17	0.172587D-05	0.302631D-05	0.117282D-05	-0.322622D-05	-0.139762D-05
18	0.845186D-06	0.980424D-06	0.580082D-05	-0.229546D-05	-0.480009D-05
19	-0.153466D-05	-0.360257D-06	-0.187557D-05	0.462074D-05	0.149573D-04
20	0.244344D-05	0.116666D-05	0.125132D-05	-0.172874D-05	-0.259323D-05
21	0.307883D-05	0.528788D-05	0.136505D-05	-0.505347D-05	-0.347046D-06
22	0.218862D-06	0.262181D-05	0.111895D-04	-0.123643D-06	-0.627447D-05



23	-0.846519D-06	-0.264124D-05	-0.134534D-05	0.903139D-05	0.244975D-04
24	0.656462D-06	0.525142D-06	0.201700D-05	-0.500847D-06	-0.196534D-05
25	-0.916672D-06	-0.197057D-05	0.103389D-05	0.290361D-06	0.327121D-05
26	-0.305312D-05	-0.570432D-05	-0.319971D-05	0.890706D-05	0.281423D-05
27	-0.435445D-06	-0.308129D-05	-0.971351D-05	0.439158D-06	0.117565D-04
28	0.189095D-05	0.441615D-06	0.192760D-05	-0.902096D-05	-0.223370D-04
29	-0.123981D-05	-0.770999D-06	-0.959216D-06	0.146271D-05	0.386093D-05
30	-0.112155D-06	-0.271399D-05	-0.154163D-05	0.428663D-06	0.209062D-05
31	-0.296021D-06	-0.823774D-07	0.196574D-05	0.138488D-05	-0.802860D-05
32	-0.124410D-04	-0.805923D-05	-0.432693D-06	-0.454205D-05	-0.106392D-04
33	0.738000D-06	-0.249545D-05	-0.841151D-05	-0.546476D-05	-0.224838D-04
34	-0.173413D-04	0.331826D-05	-0.957777D-06	-0.562512D-05	0.117058D-04
35	-0.650806D-06	0.137116D-06	0.680299D-05	-0.438578D-06	-0.933073D-05
36	0.113295D-04	0.126760D-05	-0.106525D-04	0.971568D-05	0.354479D-04
37	0.270982D-04	0.115140D-04	0.493080D-05	-0.642961D-05	0.106682D-04
38	0.105294D-04	-0.650236D-05	0.299552D-04	-0.112278D-04	-0.142847D-04
39	0.772629D-05	-0.946937D-05	0.110092D-04	0.166460D-06	0.130184D-05
40	-0.278468D-04	-0.359878D-04	0.759608D-04	0.812741D-05	-0.555780D-05
41	0.487995D-06	-0.688886D-06	0.130370D-05	-0.758015D-06	0.993285D-07
42	-0.119940D-05	-0.163905D-05	0.653558D-06	0.141676D-05	0.387950D-05
43	0.918377D-05	-0.704431D-06	-0.518935D-05	-0.781156D-06	0.887992D-06
44	-0.489035D-05	0.154825D-05	0.250841D-05	0.101094D-04	0.674147D-05
45	0.474934D-05	0.658597D-06	-0.415189D-05	-0.158436D-04	-0.208987D-04
46	0.606036D-06	-0.110373D-05	0.222929D-05	0.200671D-05	0.255977D-05
47	0.176682D-05	0.102959D-05	-0.115504D-06	0.223638D-05	0.173760D-06
48	0.115175D-06	-0.888486D-06	0.628059D-06	-0.878857D-06	0.164451D-05
49	-0.112407D-03	-0.157847D-03	0.330579D-03	0.321649D-04	-0.359657D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.492091D-03				
17	0.668440D-06	0.114730D-04			
18	0.594663D-05	0.273660D-05	0.136692D-04		
19	-0.280463D-04	-0.200952D-05	-0.564031D-05	0.514151D-04	
20	-0.117581D-05	0.152233D-05	0.501585D-05	-0.587483D-05	0.233533D-04
21	-0.627320D-06	0.580542D-05	0.134184D-05	-0.121588D-05	0.947609D-06
22	0.911329D-05	0.171610D-05	0.541330D-05	-0.388597D-05	0.200218D-05
23	-0.495158D-04	-0.205894D-05	-0.326731D-05	0.270267D-04	-0.541593D-05
24	0.940011D-05	0.235445D-05	0.549206D-05	-0.584395D-05	0.107404D-04
25	0.194397D-04	-0.107590D-05	0.290901D-05	-0.275453D-05	0.218250D-05
26	-0.289160D-06	-0.383760D-05	-0.118914D-05	0.109110D-05	-0.154745D-05
27	-0.844234D-05	-0.731342D-06	-0.376420D-05	0.359436D-05	-0.136483D-05

28	0.724747D-04	-0.494389D-06	0.133347D-05	-0.200049D-04	0.137597D-05
29	-0.508506D-05	-0.165851D-05	-0.567998D-05	0.805477D-05	-0.670556D-05
30	-0.147649D-04	-0.167061D-05	-0.775347D-06	-0.107965D-06	-0.272077D-06
31	0.508851D-05	0.150222D-05	0.179659D-05	-0.724434D-05	0.178506D-05
32	0.246946D-05	-0.136608D-04	0.115977D-05	-0.867324D-05	0.184033D-04
33	-0.512089D-05	0.396617D-05	-0.593216D-05	-0.710586D-05	0.249592D-04
34	0.172217D-04	-0.144615D-05	-0.827364D-05	0.168176D-04	-0.189945D-04
35	0.864041D-05	0.155927D-05	0.362711D-05	-0.480170D-05	0.427118D-06
36	-0.178736D-04	0.690210D-05	-0.259123D-05	0.749886D-05	-0.108281D-04
37	-0.263214D-04	0.935489D-05	-0.438946D-05	0.119925D-04	-0.206105D-04
38	-0.357262D-04	-0.749215D-05	0.373726D-06	0.901787D-05	0.116380D-04
39	0.122074D-04	0.954149D-05	-0.114919D-04	-0.104066D-05	-0.395648D-05
40	-0.151796D-03	-0.117033D-04	0.216761D-04	-0.398629D-05	-0.502277D-05
41	0.966976D-06	0.158971D-06	0.296078D-05	0.127058D-05	0.177175D-05
42	-0.388728D-06	0.231705D-06	0.104438D-05	-0.376626D-05	-0.564726D-06
43	0.518969D-04	-0.245701D-06	-0.334607D-06	0.416633D-05	-0.443259D-05
44	-0.201496D-04	0.249719D-05	-0.368024D-05	0.906318D-06	0.444054D-05
45	0.437895D-05	-0.340948D-05	0.773390D-06	-0.504594D-05	-0.816835D-05
46	-0.240019D-05	-0.954725D-06	0.149429D-05	-0.428488D-05	0.395601D-06
47	-0.954282D-05	0.319709D-05	0.127212D-05	-0.320378D-06	-0.272308D-05
48	-0.115345D-04	0.562485D-06	-0.488059D-06	0.443637D-06	0.214572D-05
49	-0.633365D-03	-0.457430D-04	0.909721D-04	-0.250630D-04	-0.148531D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.465001D-04				
22	0.100938D-04	0.565002D-04			
23	-0.973295D-05	-0.184110D-04	0.217228D-03		
24	0.262154D-05	0.117411D-04	-0.163617D-04	0.502809D-04	
25	0.991680D-05	0.368094D-04	-0.371807D-04	0.462872D-04	0.407602D-03
26	-0.914691D-05	-0.222975D-05	0.191136D-05	-0.163409D-07	0.433657D-07
27	-0.306648D-05	-0.106078D-04	0.521767D-05	-0.132836D-05	-0.275551D-05
28	-0.986278D-06	0.273382D-05	-0.423821D-04	0.496941D-05	0.895416D-05
29	-0.205976D-05	-0.384470D-05	0.541750D-05	-0.882720D-05	-0.873398D-05
30	-0.777773D-05	-0.206012D-04	0.385446D-04	-0.195294D-04	-0.777713D-04
31	-0.987042D-06	0.633295D-05	-0.150879D-04	0.566396D-05	0.745846D-05
32	-0.524332D-06	0.167200D-05	0.627074D-05	0.467983D-05	-0.137717D-04
33	-0.831945D-05	0.728444D-05	-0.466740D-04	0.986074D-05	0.288808D-04
34	0.870030D-05	-0.117034D-04	0.538433D-04	-0.174164D-04	-0.651115D-04
35	0.281406D-05	0.380419D-05	-0.264513D-04	-0.579250D-05	-0.556486D-05
36	-0.144402D-04	0.742074D-05	-0.126763D-04	0.352171D-05	0.650042D-04
37	0.278632D-05	-0.166143D-04	-0.178426D-04	-0.619328D-05	0.262004D-05

38	-0.267216D-04	-0.985473D-05	0.976607D-05	-0.384579D-05	-0.431007D-04
39	-0.322164D-04	-0.181469D-04	0.156027D-04	-0.234889D-04	-0.799111D-04
40	-0.172743D-05	0.589857D-04	-0.138622D-03	-0.487724D-04	0.284193D-03
41	-0.144865D-06	0.100309D-05	0.178814D-05	0.178795D-05	-0.302664D-05
42	-0.322494D-05	0.364694D-05	0.207013D-07	0.247914D-05	0.101386D-04
43	-0.905547D-06	-0.116848D-04	0.885373D-05	-0.754791D-05	-0.157341D-04
44	0.315004D-07	0.101451D-04	-0.547601D-05	0.145610D-04	0.183314D-04
45	0.504567D-06	-0.492645D-05	0.804381D-05	-0.130328D-04	-0.188370D-04
46	-0.196776D-05	-0.429021D-05	-0.110701D-06	-0.616696D-05	-0.856376D-05
47	0.243353D-05	0.514326D-05	-0.378251D-05	0.298852D-05	0.548161D-05
48	-0.203183D-06	-0.696302D-06	0.233075D-05	-0.200752D-05	-0.479263D-05
49	-0.275080D-04	0.249759D-03	-0.603869D-03	-0.209260D-03	0.112866D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.383472D-04				
27	0.892302D-05	0.495577D-04			
28	-0.719923D-05	-0.151678D-04	0.194873D-03		
29	0.346514D-05	0.111109D-04	-0.147460D-04	0.382386D-04	
30	0.736273D-05	0.166820D-04	-0.283419D-04	0.202224D-04	0.185686D-03
31	-0.391407D-05	-0.358513D-04	0.681521D-04	-0.277954D-04	-0.642161D-04
32	0.101150D-04	-0.700422D-05	-0.632037D-05	-0.864691D-05	0.115248D-04
33	-0.312474D-05	-0.392163D-06	0.128112D-04	-0.195281D-04	-0.582579D-04
34	-0.252877D-04	0.782214D-05	-0.261676D-04	0.824931D-05	0.427019D-04
35	0.186804D-05	0.410353D-05	-0.157902D-04	0.864763D-05	0.853201D-05
36	-0.173781D-04	0.295892D-04	-0.360661D-04	0.258613D-04	-0.295987D-05
37	-0.103355D-04	0.136693D-04	0.100993D-04	0.637607D-05	0.285343D-06
38	0.219083D-04	-0.182637D-05	-0.368863D-05	-0.936639D-05	0.236156D-04
39	0.137597D-04	-0.681240D-05	-0.171169D-04	-0.112026D-04	0.183278D-04
40	-0.406119D-04	-0.112083D-03	0.133416D-03	-0.914661D-04	-0.149725D-03
41	0.432916D-06	-0.469914D-06	-0.216824D-05	-0.223088D-05	-0.428572D-06
42	0.103537D-05	0.231599D-05	-0.620454D-05	0.497386D-05	-0.130556D-05
43	0.778528D-05	-0.193749D-05	0.471703D-05	0.328253D-05	0.363213D-04
44	-0.756887D-05	0.329742D-05	-0.396095D-05	0.372213D-05	-0.361072D-04
45	-0.105595D-05	-0.864075D-06	0.558338D-05	-0.501500D-05	0.185233D-04
46	0.247022D-06	0.326392D-05	-0.602136D-05	-0.198564D-05	0.810741D-05
47	-0.513189D-06	-0.975221D-06	-0.413254D-06	0.510328D-05	0.788642D-06
48	-0.135316D-05	-0.595782D-06	-0.439083D-05	-0.134382D-05	0.179720D-05
49	-0.154665D-03	-0.468481D-03	0.533132D-03	-0.386765D-03	-0.595799D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.297113D-03				
32	-0.355573D-04	0.665064D-02			
33	0.313425D-04	0.230029D-03	0.412754D-02		
34	0.108520D-04	-0.167114D-03	-0.246857D-02	0.470432D-02	
35	-0.242392D-04	0.124218D-04	0.281017D-03	-0.220567D-03	0.102711D-02
36	-0.418632D-04	-0.668642D-02	-0.228816D-03	0.222888D-03	0.257193D-04
37	0.328024D-04	-0.665468D-02	-0.174378D-03	0.230257D-03	-0.250512D-04
38	-0.156834D-04	-0.198317D-03	-0.178723D-03	0.364887D-03	-0.220126D-04
39	-0.192632D-04	-0.886645D-04	-0.974253D-04	0.317530D-03	0.234337D-04
40	0.161958D-04	0.245868D-03	0.372796D-03	0.788449D-04	-0.737642D-04
41	0.529122D-06	0.116250D-03	-0.733231D-05	0.511355D-05	-0.167949D-05
42	-0.893790D-05	0.421845D-04	-0.107801D-05	-0.188851D-05	0.113623D-05
43	-0.158155D-05	0.279382D-04	0.130840D-03	-0.190986D-03	-0.207837D-04
44	0.187051D-06	-0.146986D-04	-0.382766D-04	0.137850D-03	0.298612D-04
45	0.264689D-05	-0.751271D-04	-0.537258D-05	-0.985259D-04	-0.485275D-04
46	-0.449618D-05	0.199037D-04	0.258906D-04	-0.389906D-04	-0.405048D-04
47	-0.439280D-05	-0.223954D-04	-0.273592D-04	0.435153D-04	0.649746D-05
48	0.444921D-05	0.153168D-05	0.478620D-05	-0.120219D-04	0.131345D-05
49	0.332093D-04	0.111399D-02	0.148873D-02	0.555330D-03	-0.336759D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.104380D-01				
37	0.679316D-02	0.893878D-02			
38	0.599553D-03	0.131355D-03	0.967947D-02		
39	0.238761D-03	0.184909D-03	0.600591D-02	0.826866D-02	
40	-0.178542D-03	-0.272911D-03	-0.116859D-02	0.261496D-03	0.657176D-01
41	-0.926741D-04	-0.124688D-03	-0.215183D-04	-0.416525D-04	-0.163165D-03
42	-0.414782D-04	-0.361149D-04	-0.251955D-03	-0.653496D-04	0.215452D-03
43	0.462394D-04	0.459392D-04	-0.118297D-03	0.144296D-05	-0.255057D-04
44	0.103632D-04	-0.195534D-04	0.595312D-04	-0.456656D-06	-0.251418D-03
45	0.429405D-04	0.118311D-03	0.546221D-04	-0.102733D-04	0.632774D-03
46	-0.255581D-04	-0.472266D-04	0.493183D-04	0.589656D-04	0.427822D-05
47	0.333385D-04	0.257335D-04	0.190245D-04	0.326466D-04	-0.228358D-03
48	-0.884238D-05	-0.117618D-04	-0.709649D-05	-0.456687D-05	0.141830D-03
49	-0.690811D-03	-0.126499D-02	0.111420D-02	0.704857D-02	0.271383D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

41	42	43	44	45
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41	0.107151D-03				
42	0.281612D-05	0.153441D-03			
43	0.475496D-05	0.359206D-05	0.193610D-02		
44	-0.231763D-05	-0.566752D-05	-0.115650D-02	0.143199D-02	
45	-0.157680D-04	-0.123876D-05	0.710893D-03	-0.135852D-02	0.264828D-02
46	0.452425D-05	-0.235565D-05	0.124214D-03	-0.978641D-04	0.454149D-04
47	-0.631802D-06	0.771099D-05	-0.718191D-04	0.997698D-04	-0.827852D-04
48	-0.320556D-06	-0.132204D-05	0.102688D-04	-0.170387D-04	0.206328D-04
49	-0.649505D-03	0.849730D-03	-0.180798D-03	-0.993444D-03	0.262988D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.228990D-03			
47	-0.136003D-03	0.258292D-03		
48	0.278009D-04	-0.236715D-04	0.813269D-04	
49	0.652276D-04	-0.916983D-03	0.581605D-03	0.112689D+01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.217	1.000			
3	-0.053	-0.173	1.000		
4	0.022	0.210	-0.109	1.000	
5	0.031	0.148	-0.099	0.225	1.000
6	0.028	0.013	-0.030	-0.032	-0.002
7	-0.049	0.018	-0.002	0.008	-0.039
8	0.034	0.013	0.000	-0.020	-0.027
9	0.010	-0.041	-0.005	-0.008	0.012
10	-0.027	-0.009	0.006	-0.012	0.012
11	-0.001	-0.019	0.055	-0.023	-0.024
12	-0.035	-0.006	-0.003	-0.017	-0.017
13	0.025	0.030	-0.059	-0.015	-0.006
14	0.015	-0.022	0.000	-0.018	-0.014
15	0.015	0.018	0.054	0.028	0.010
16	-0.009	0.008	-0.031	-0.003	0.031
17	-0.074	-0.018	0.003	-0.008	0.019
18	-0.030	0.036	-0.042	0.026	0.015
19	-0.017	0.000	0.034	0.020	0.001
20	-0.012	0.001	0.022	-0.033	0.000

21	0.016	0.018	-0.030	-0.014	0.019
22	-0.019	0.006	-0.030	-0.031	-0.016
23	0.024	-0.018	0.000	0.038	-0.001
24	0.027	0.010	0.011	0.027	0.021
25	-0.022	0.017	-0.017	0.046	0.016
26	0.029	-0.060	0.032	0.005	0.022
27	-0.011	-0.023	0.040	0.010	0.015
28	-0.003	0.036	-0.034	0.004	-0.024
29	0.012	-0.014	0.036	-0.039	-0.006
30	0.009	-0.035	0.006	-0.011	-0.019
31	-0.050	0.009	-0.002	0.011	-0.015
32	0.026	0.008	0.026	-0.001	0.006
33	-0.016	-0.002	-0.037	-0.008	-0.007
34	0.013	0.008	0.033	-0.014	0.015
35	-0.038	-0.104	0.075	-0.047	-0.088
36	-0.043	0.010	-0.015	0.010	0.008
37	-0.018	-0.006	-0.029	-0.002	0.006
38	-0.023	-0.056	0.035	-0.035	0.004
39	-0.003	-0.015	0.005	-0.013	0.018
40	0.010	0.014	0.026	0.031	0.006
41	0.012	-0.058	0.002	-0.007	-0.025
42	0.018	0.041	-0.029	0.023	0.036
43	-0.014	-0.048	0.032	0.040	0.032
44	0.020	0.038	-0.023	-0.022	-0.040
45	-0.017	-0.022	-0.003	-0.017	0.041
46	0.006	-0.039	-0.015	0.033	0.028
47	-0.011	0.038	0.034	-0.038	-0.014
48	0.024	0.011	-0.015	0.004	-0.060
49	0.010	0.011	0.025	0.028	0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.095	1.000			
8	-0.004	0.110	1.000		
9	-0.011	-0.202	0.046	1.000	
10	-0.083	-0.101	0.044	-0.167	1.000
11	-0.005	-0.022	-0.014	0.036	-0.014
12	-0.022	0.020	-0.015	-0.057	-0.003
13	-0.010	0.005	0.062	-0.011	0.000
14	-0.001	-0.056	0.021	0.030	-0.029
15	-0.014	-0.035	-0.002	0.015	0.019

16	-0.007	-0.009	0.010	-0.021	0.023
17	-0.013	0.011	0.016	0.001	0.005
18	0.003	0.021	0.019	-0.015	-0.046
19	-0.003	-0.013	-0.034	-0.012	0.000
20	0.004	-0.012	-0.004	-0.009	0.015
21	0.027	0.007	-0.005	0.029	0.008
22	-0.017	0.004	-0.007	0.002	-0.038
23	-0.009	-0.025	-0.003	-0.014	-0.010
24	-0.038	0.041	-0.018	0.027	0.018
25	-0.035	0.012	0.040	0.061	0.013
26	-0.051	-0.013	0.004	-0.003	0.017
27	0.020	-0.027	0.010	0.001	0.011
28	-0.007	0.033	0.016	-0.003	0.000
29	0.013	-0.052	-0.013	0.020	0.046
30	0.031	-0.018	-0.005	-0.015	-0.003
31	-0.015	0.010	0.004	-0.039	0.007
32	0.041	-0.013	-0.029	0.012	0.073
33	-0.002	0.028	-0.028	-0.036	0.007
34	0.008	-0.025	0.040	-0.005	0.003
35	-0.013	0.000	-0.034	0.000	0.015
36	-0.048	0.026	-0.033	0.012	0.000
37	-0.043	0.063	0.002	0.040	-0.023
38	-0.020	-0.008	-0.055	-0.068	-0.015
39	-0.006	-0.027	0.012	-0.028	-0.017
40	-0.011	0.011	-0.020	0.034	0.015
41	0.072	-0.016	-0.007	-0.067	0.031
42	0.042	-0.029	-0.029	0.016	0.039
43	-0.045	0.021	0.017	0.020	0.027
44	0.013	-0.044	0.006	-0.010	0.013
45	0.007	0.027	-0.012	-0.009	0.002
46	-0.001	0.023	0.047	-0.003	-0.022
47	-0.004	-0.061	-0.039	-0.018	0.007
48	0.002	0.013	0.056	0.038	-0.040
49	0.003	0.012	-0.023	0.029	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.337	1.000			
13	0.048	0.291	1.000		
14	-0.093	-0.174	-0.044	1.000	
15	0.005	-0.090	-0.233	0.254	1.000

16	-0.015	-0.004	0.048	-0.100	-0.266
17	0.111	0.236	0.061	-0.135	-0.053
18	0.050	0.070	0.277	-0.088	-0.167
19	-0.046	-0.013	-0.046	0.091	0.268
20	0.110	0.064	0.046	-0.051	-0.069
21	0.098	0.205	0.035	-0.105	-0.007
22	0.006	0.092	0.263	-0.002	-0.107
23	-0.012	-0.047	-0.016	0.087	0.213
24	0.020	0.020	0.050	-0.010	-0.036
25	-0.010	-0.026	0.009	0.002	0.021
26	-0.107	-0.243	-0.091	0.204	0.058
27	-0.013	-0.115	-0.244	0.009	0.214
28	0.029	0.008	0.024	-0.092	-0.205
29	-0.044	-0.033	-0.027	0.034	0.080
30	-0.002	-0.053	-0.020	0.004	0.020
31	-0.004	-0.001	0.020	0.011	-0.060
32	-0.033	-0.026	-0.001	-0.008	-0.017
33	0.002	-0.010	-0.023	-0.012	-0.045
34	-0.055	0.013	-0.002	-0.012	0.022
35	-0.004	0.001	0.037	-0.002	-0.037
36	0.024	0.003	-0.018	0.013	0.045
37	0.062	0.032	0.009	-0.010	0.014
38	0.023	-0.017	0.054	-0.016	-0.019
39	0.018	-0.027	0.021	0.000	0.002
40	-0.024	-0.037	0.052	0.004	-0.003
41	0.010	-0.018	0.022	-0.010	0.001
42	-0.021	-0.035	0.009	0.016	0.040
43	0.045	-0.004	-0.021	-0.003	0.003
44	-0.028	0.011	0.012	0.038	0.023
45	0.020	0.003	-0.014	-0.044	-0.052
46	0.009	-0.019	0.026	0.019	0.022
47	0.024	0.017	-0.001	0.020	0.001
48	0.003	-0.026	0.012	-0.014	0.023
49	-0.023	-0.039	0.055	0.004	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.009	1.000			
18	0.073	0.219	1.000		
19	-0.176	-0.083	-0.213	1.000	
20	-0.011	0.093	0.281	-0.170	1.000



21	-0.004	0.251	0.053	-0.025	0.029
22	0.055	0.067	0.195	-0.072	0.055
23	-0.151	-0.041	-0.060	0.256	-0.076
24	0.060	0.098	0.209	-0.115	0.313
25	0.043	-0.016	0.039	-0.019	0.022
26	-0.002	-0.183	-0.052	0.025	-0.052
27	-0.054	-0.031	-0.145	0.071	-0.040
28	0.234	-0.010	0.026	-0.200	0.020
29	-0.037	-0.079	-0.248	0.182	-0.224
30	-0.049	-0.036	-0.015	-0.001	-0.004
31	0.013	0.026	0.028	-0.059	0.021
32	0.001	-0.049	0.004	-0.015	0.047
33	-0.004	0.018	-0.025	-0.015	0.080
34	0.011	-0.006	-0.033	0.034	-0.057
35	0.012	0.014	0.031	-0.021	0.003
36	-0.008	0.020	-0.007	0.010	-0.022
37	-0.013	0.029	-0.013	0.018	-0.045
38	-0.016	-0.022	0.001	0.013	0.024
39	0.006	0.031	-0.034	-0.002	-0.009
40	-0.027	-0.013	0.023	-0.002	-0.004
41	0.004	0.005	0.077	0.017	0.035
42	-0.001	0.006	0.023	-0.042	-0.009
43	0.053	-0.002	-0.002	0.013	-0.021
44	-0.024	0.019	-0.026	0.003	0.024
45	0.004	-0.020	0.004	-0.014	-0.033
46	-0.007	-0.019	0.027	-0.039	0.005
47	-0.027	0.059	0.021	-0.003	-0.035
48	-0.058	0.018	-0.015	0.007	0.049
49	-0.027	-0.013	0.023	-0.003	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.197	1.000			
23	-0.097	-0.166	1.000		
24	0.054	0.220	-0.157	1.000	
25	0.072	0.243	-0.125	0.323	1.000
26	-0.217	-0.048	0.021	0.000	0.000
27	-0.064	-0.200	0.050	-0.027	-0.019
28	-0.010	0.026	-0.206	0.050	0.032
29	-0.049	-0.083	0.059	-0.201	-0.070
30	-0.084	-0.201	0.192	-0.202	-0.283

31	-0.008	0.049	-0.059	0.046	0.021
32	-0.001	0.003	0.005	0.008	-0.008
33	-0.019	0.015	-0.049	0.022	0.022
34	0.019	-0.023	0.053	-0.036	-0.047
35	0.013	0.016	-0.056	-0.025	-0.009
36	-0.021	0.010	-0.008	0.005	0.032
37	0.004	-0.023	-0.013	-0.009	0.001
38	-0.040	-0.013	0.007	-0.006	-0.022
39	-0.052	-0.027	0.012	-0.036	-0.044
40	-0.001	0.031	-0.037	-0.027	0.055
41	-0.002	0.013	0.012	0.024	-0.014
42	-0.038	0.039	0.000	0.028	0.041
43	-0.003	-0.035	0.014	-0.024	-0.018
44	0.000	0.036	-0.010	0.054	0.024
45	0.001	-0.013	0.011	-0.036	-0.018
46	-0.019	-0.038	0.000	-0.057	-0.028
47	0.022	0.043	-0.016	0.026	0.017
48	-0.003	-0.010	0.018	-0.031	-0.026
49	-0.004	0.031	-0.039	-0.028	0.053

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.205	1.000			
28	-0.083	-0.154	1.000		
29	0.090	0.255	-0.171	1.000	
30	0.087	0.174	-0.149	0.240	1.000
31	-0.037	-0.295	0.283	-0.261	-0.273
32	0.020	-0.012	-0.006	-0.017	0.010
33	-0.008	-0.001	0.014	-0.049	-0.067
34	-0.060	0.016	-0.027	0.019	0.046
35	0.009	0.018	-0.035	0.044	0.020
36	-0.027	0.041	-0.025	0.041	-0.002
37	-0.018	0.021	0.008	0.011	0.000
38	0.036	-0.003	-0.003	-0.015	0.018
39	0.024	-0.011	-0.013	-0.020	0.015
40	-0.026	-0.062	0.037	-0.058	-0.043
41	0.007	-0.006	-0.015	-0.035	-0.003
42	0.013	0.027	-0.036	0.065	-0.008
43	0.029	-0.006	0.008	0.012	0.061
44	-0.032	0.012	-0.007	0.016	-0.070
45	-0.003	-0.002	0.008	-0.016	0.026

46	0.003	0.031	-0.029	-0.021	0.039
47	-0.005	-0.009	-0.002	0.051	0.004
48	-0.024	-0.009	-0.035	-0.024	0.015
49	-0.024	-0.063	0.036	-0.059	-0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.025	1.000			
33	0.028	0.044	1.000		
34	0.009	-0.030	-0.560	1.000	
35	-0.044	0.005	0.136	-0.100	1.000
36	-0.024	-0.803	-0.035	0.032	0.008
37	0.020	-0.863	-0.029	0.036	-0.008
38	-0.009	-0.025	-0.028	0.054	-0.007
39	-0.012	-0.012	-0.017	0.051	0.008
40	0.004	0.012	0.023	0.004	-0.009
41	0.003	0.138	-0.011	0.007	-0.005
42	-0.042	0.042	-0.001	-0.002	0.003
43	-0.002	0.008	0.046	-0.063	-0.015
44	0.000	-0.005	-0.016	0.053	0.025
45	0.003	-0.018	-0.002	-0.028	-0.029
46	-0.017	0.016	0.027	-0.038	-0.084
47	-0.016	-0.017	-0.026	0.039	0.013
48	0.029	0.002	0.008	-0.019	0.005
49	0.002	0.013	0.022	0.008	-0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.703	1.000			
38	0.060	0.014	1.000		
39	0.026	0.022	0.671	1.000	
40	-0.007	-0.011	-0.046	0.011	1.000
41	-0.088	-0.127	-0.021	-0.044	-0.061
42	-0.033	-0.031	-0.207	-0.058	0.068
43	0.010	0.011	-0.027	0.000	-0.002
44	0.003	-0.005	0.016	0.000	-0.026
45	0.008	0.024	0.011	-0.002	0.048
46	-0.017	-0.033	0.033	0.043	0.001

47	0.020	0.017	0.012	0.022	-0.055
48	-0.010	-0.014	-0.008	-0.006	0.061
49	-0.006	-0.013	0.011	0.073	0.997

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.022	1.000			
43	0.010	0.007	1.000		
44	-0.006	-0.012	-0.695	1.000	
45	-0.030	-0.002	0.314	-0.698	1.000
46	0.029	-0.013	0.187	-0.171	0.058
47	-0.004	0.039	-0.102	0.164	-0.100
48	-0.003	-0.012	0.026	-0.050	0.044
49	-0.059	0.065	-0.004	-0.025	0.048

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.559	1.000		
48	0.204	-0.163	1.000	
49	0.004	-0.054	0.061	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.006	39
200	1.016	37
300	1.007	40
400	1.002	40

500	1.003	36
600	1.006	36
700	1.008	36
800	1.003	36
900	1.003	7
1000	1.003	40

This is the interaction between latent profile categories and job control on improving physical health

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

# PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	0.971	0.971	0.971	0.971	0.971
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.966
PRESS15	0.966	0.966	0.966	0.966	0.966
DUTIES15	0.966	0.966	0.966	0.966	0.966

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.963			
BULLY15	0.963	0.966		
PRESS15	0.963	0.966	0.966	
DUTIES15	0.963	0.966	0.966	0.966

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	Percentiles 20%/60%	Percentiles 40%/80%	Median
--------------------------	-------------------	-----------------------	---------------------	-------------------	------------------------	------------------------	--------

CLU2		0.316	0.793	0.000	68.42%	0.000	0.000	0.000
	57.000	0.216	-1.372	1.000	31.58%	0.000	1.000	
CLU3		0.439	0.247	0.000	56.14%	0.000	0.000	0.000
	57.000	0.246	-1.939	1.000	43.86%	1.000	1.000	
PHY15		0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
	1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15		0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
	1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15		2.878	-0.138	1.000	14.60%	2.000	3.000	3.000
	1370.000	1.250	-0.758	5.000	5.77%	3.000	4.000	
BULLY15		0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
	1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15		0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
	1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15		0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
	1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.821	0.117	0.000	0.603	1.060	*
BULLY15	0.048	0.055	0.198	-0.054	0.154	
DUTIES15	0.033	0.039	0.187	-0.041	0.115	
PRESS15	-0.004	0.034	0.456	-0.073	0.062	
KES15	0.167	0.054	0.001	0.064	0.275	*



KES15	WITH					
PHY15		0.071	0.009	0.000	0.054	0.088 *
CHOICE15		-0.131	0.024	0.000	-0.180	-0.087 *
BULLY15		0.127	0.015	0.000	0.099	0.157 *
PRESS15		0.207	0.024	0.000	0.161	0.256 *
DUTIES15		-0.207	0.022	0.000	-0.250	-0.163 *
PHY15	WITH					
CHOICE15		-0.031	0.012	0.004	-0.055	-0.008 *
BULLY15		0.013	0.007	0.047	-0.002	0.027
PRESS15		0.016	0.011	0.075	-0.005	0.039
DUTIES15		-0.009	0.010	0.203	-0.032	0.011
CHOICE15	WITH					
BULLY15		-0.123	0.021	0.000	-0.163	-0.084 *
PRESS15		-0.167	0.033	0.000	-0.234	-0.105 *
DUTIES15		0.161	0.030	0.000	0.105	0.222 *
BULLY15	WITH					
PRESS15		0.179	0.021	0.000	0.138	0.223 *
DUTIES15		-0.140	0.020	0.000	-0.180	-0.103 *
PRESS15	WITH					
DUTIES15		-0.242	0.030	0.000	-0.300	-0.183 *
Means						
PHY15		0.000	0.010	0.497	-0.020	0.021
KES15		0.000	0.021	0.488	-0.039	0.042
BULLY15		0.000	0.018	0.492	-0.036	0.038
PRESS15		0.002	0.029	0.468	-0.058	0.056
DUTIES15		0.000	0.027	0.499	-0.051	0.053
Variances						
PHY15		0.155	0.006	0.000	0.144	0.166 *
KES15		0.613	0.024	0.000	0.569	0.665 *
CHOICE15		1.201	0.047	0.000	1.112	1.298 *
BULLY15		0.475	0.018	0.000	0.441	0.513 *
PRESS15		1.207	0.047	0.000	1.121	1.304 *
DUTIES15		0.975	0.037	0.000	0.908	1.052 *

Between Level

S1 ON

CLU2	0.036	0.118	0.379	-0.192	0.267	
CLU3	-0.046	0.112	0.331	-0.261	0.177	
PHYCAT16 ON						
CLU2	-0.133	0.126	0.151	-0.378	0.107	
CLU3	-0.039	0.121	0.362	-0.268	0.209	
CHOICE15	-0.087	0.212	0.333	-0.517	0.337	
CHOICE15 WITH						
CLU2	0.019	0.026	0.238	-0.032	0.072	
CLU3	-0.025	0.028	0.162	-0.082	0.032	
CLU2 WITH						
CLU3	-0.137	0.038	0.000	-0.226	-0.075	*
Means						
CLU2	0.318	0.063	0.000	0.195	0.441	*
CLU3	0.438	0.068	0.000	0.303	0.567	*
CHOICE15	2.958	0.054	0.000	2.855	3.072	*
Intercepts						
S1	-0.031	0.097	0.364	-0.224	0.156	
Thresholds						
PHYCAT16\$1	-0.709	0.639	0.128	-2.029	0.534	
Variances						
CLU2	0.231	0.045	0.000	0.165	0.341	*
CLU3	0.262	0.050	0.000	0.186	0.376	*
CHOICE15	0.081	0.023	0.000	0.048	0.139	*
Residual Variances						
PHYCAT16	0.008	0.011	0.000	0.000	0.040	*
S1	0.005	0.010	0.000	0.000	0.035	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior	One-Tailed	95% C.I.		Significance
	S.D.	P-Value	Lower 2.5%	Upper 2.5%	

Within-Level Standardized Estimates Averaged Over Clusters

S1   PHYCAT16 ON						
CHOICE15	-0.040	0.038	0.147	-0.112	0.036	
PHYCAT16 ON						
PHY15	0.299	0.038	0.000	0.226	0.374	*
BULLY15	0.031	0.036	0.195	-0.037	0.101	
DUTIES15	0.030	0.036	0.189	-0.037	0.104	
PRESS15	-0.003	0.036	0.471	-0.072	0.066	
KES15	0.121	0.038	0.000	0.046	0.194	*
KES15 WITH						
PHY15	0.230	0.026	0.000	0.179	0.278	*
CHOICE15	-0.153	0.026	0.000	-0.205	-0.101	*
BULLY15	0.236	0.025	0.000	0.184	0.285	*
PRESS15	0.241	0.025	0.000	0.190	0.291	*
DUTIES15	-0.267	0.025	0.000	-0.316	-0.216	*
PHY15 WITH						
CHOICE15	-0.071	0.027	0.006	-0.124	-0.018	*
BULLY15	0.046	0.027	0.049	-0.007	0.099	
PRESS15	0.036	0.027	0.091	-0.015	0.089	
DUTIES15	-0.023	0.027	0.200	-0.077	0.028	
CHOICE15 WITH						
BULLY15	-0.163	0.026	0.000	-0.212	-0.111	*
PRESS15	-0.139	0.027	0.000	-0.193	-0.087	*
DUTIES15	0.148	0.027	0.000	0.098	0.202	*
BULLY15 WITH						
PRESS15	0.235	0.025	0.000	0.186	0.286	*
DUTIES15	-0.205	0.027	0.000	-0.257	-0.154	*
PRESS15 WITH						
DUTIES15	-0.225	0.026	0.000	-0.273	-0.174	*
Means						
PHY15	0.001	0.027	0.491	-0.051	0.051	
KES15	0.000	0.027	0.493	-0.050	0.053	
BULLY15	0.001	0.027	0.484	-0.052	0.056	
PRESS15	0.001	0.027	0.481	-0.052	0.052	
DUTIES15	0.000	0.027	0.493	-0.052	0.053	

Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1	ON					
CLU2		0.192	0.517	0.379	-0.850	1.075
CLU3		-0.255	0.512	0.331	-1.042	0.831
PHYCAT16	ON					
CLU2		-0.477	0.403	0.151	-1.087	0.458
CLU3		-0.150	0.433	0.362	-0.920	0.730
CHOICE15		-0.196	0.395	0.333	-0.825	0.616
CHOICE15	WITH					
CLU2		0.138	0.179	0.238	-0.229	0.463
CLU3		-0.176	0.174	0.162	-0.485	0.217
CLU2	WITH					
CLU3		-0.561	0.090	0.000	-0.710	-0.354 *
Means						
CLU2		0.662	0.145	0.000	0.381	0.946 *
CLU3		0.856	0.155	0.000	0.579	1.173 *
CHOICE15		10.372	1.404	0.000	7.986	13.444 *
Intercepts						
S1		-0.323	0.950	0.364	-2.306	1.278
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.462	0.253	0.000	0.037	0.923 *
S1		0.574	0.277	0.000	0.045	0.978 *

# R-SQUARE

## Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.144	0.027	0.000	0.095	0.200

## Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.538	0.253	0.000	0.077	0.963

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.426	0.277	0.000	0.022	0.955

## TECHNICAL 1 OUTPUT

### PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

\_\_\_\_\_

0

NU

PHYCAT16

\_\_\_\_\_

0

PHY15

\_\_\_\_\_

0

KES15

\_\_\_\_\_

0

CHOICE15

\_\_\_\_\_

0

BULLY15

\_\_\_\_\_

0

NU

PRESS15

\_\_\_\_\_

0

DUTIES15

\_\_\_\_\_

0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0	1	2	0	3	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
4	5

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	6	7	0	8	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	10
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16					
PHY15	11				
KES15	12	13			
CHOICE15	14	15	16		

BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI	
PRESS15	DUTIES15
-----	-----
PRESS15	25
DUTIES15	30
	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
-----
49

NU	PHYCAT16	CLU2	CLU3	CHOICE15
	-----	-----	-----	-----
	0	0	0	0

LAMBDA	S1	PHYCAT16	CLU2	CLU3	CHOICE15
	-----	-----	-----	-----	-----
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
CHOICE15	0	0	0	0	0

THETA	PHYCAT16	CLU2	CLU3	CHOICE15
	-----	-----	-----	-----
PHYCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
CHOICE15	0	0	0	0



ALPHA					
S1		PHYCAT16	CLU2	CLU3	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	32	0	33	34	35

	BETA				
	S1	PHYCAT16	CLU2	CLU3	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
S1	0	0	36	37	0
PHYCAT16	0	0	38	39	40
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
CHOICE15	0	0	0	0	0

	PSI				
	S1	PHYCAT16	CLU2	CLU3	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
S1	41				
PHYCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
CHOICE15	0	0	46	47	48

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15

<u>0.000</u>	<u>0.000</u>
--------------	--------------

LAMBDA

PHYCAT16

PHY15

KES15

CHOICE15

BULLY15

PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

PRESS15

DUTIES15

PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

PHYCAT16

PHY15

KES15

CHOICE15

BULLY15

PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

PRESS15

DUTIES15

PRESS15	<u>0.000</u>	<u>0.000</u>
---------	--------------	--------------

DUTIES15	0.000	0.000
----------	-------	-------

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.077		

KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.604
DUTIES15	0.000
	0.488

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/>
-0.311

NU	PHYCAT16	CLU2	CLU3	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000

LAMBDA					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	1.000

THETA				
PHYCAT16	PHYCAT16	CLU2	CLU3	CHOICE15
	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	

CHOICE15	0.000	0.000	0.000	0.000
----------	-------	-------	-------	-------

ALPHA					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
0.000	0.000	0.375	0.482	2.878	

BETA					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
S1	0.000	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000

PSI					
S1	PHYCAT16	CLU2	CLU3	CHOICE15	
S1	1.000				
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.117		
CLU3	0.000	0.000	0.125		
CHOICE15	0.000	0.000	0.000	0.625	

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity

Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1

2

3

4

5

1	0.109727D-03				
2	0.492240D-04	0.443533D-03			
3	0.135121D-04	0.940214D-04	0.338132D-03		
4	0.169053D-04	0.131016D-03	0.123592D-03	0.853862D-03	
5	-0.124156D-04	-0.170112D-03	-0.101744D-03	-0.182697D-03	0.712064D-03
6	-0.193558D-04	0.525135D-04	0.524904D-04	0.340992D-04	-0.910505D-04
7	0.986919D-05	0.982943D-05	0.321434D-04	0.799597D-04	-0.487878D-04
8	0.885511D-05	-0.158325D-04	-0.436636D-04	-0.388262D-04	0.541262D-04
9	0.327770D-05	-0.168884D-04	0.458968D-05	-0.822910D-06	0.221287D-04
10	0.871301D-05	-0.690148D-05	-0.343398D-05	0.292226D-04	0.132540D-04
11	0.305119D-05	-0.184031D-05	-0.562727D-05	-0.356894D-05	0.420967D-05
12	0.140629D-06	0.423632D-05	-0.126519D-05	0.244224D-05	0.243409D-05
13	-0.149739D-06	0.272410D-04	0.749457D-05	-0.136699D-05	-0.203769D-04
14	-0.208491D-07	0.306287D-05	0.259272D-05	0.113327D-05	0.165755D-04
15	-0.930255D-05	0.437707D-05	-0.156427D-05	-0.124022D-04	0.177476D-04
16	-0.909670D-05	-0.183337D-04	-0.479764D-04	0.703887D-04	0.197157D-05
17	0.255835D-06	-0.515849D-05	0.319732D-05	0.107642D-05	0.452254D-05
18	-0.775167D-06	0.821702D-05	0.514562D-05	-0.106758D-05	0.514899D-05
19	0.150652D-05	0.978448D-05	0.338125D-05	-0.247885D-04	-0.186795D-04
20	0.200102D-05	0.985564D-05	0.971632D-05	-0.125641D-04	-0.325478D-05
21	0.326435D-05	-0.116719D-04	-0.952958D-05	0.574873D-05	0.303835D-05
22	0.613331D-05	0.990962D-05	-0.487268D-05	0.317439D-04	0.474757D-05
23	-0.596305D-05	0.598028D-05	0.122900D-04	-0.422980D-04	-0.401466D-04
24	0.282502D-05	0.548662D-05	0.688400D-05	0.176108D-07	0.117542D-04
25	0.365247D-04	0.592613D-05	-0.333546D-04	0.702682D-04	0.100021D-04
26	0.155047D-06	0.713785D-05	-0.935309D-06	-0.217931D-05	-0.114482D-04
27	-0.124675D-05	-0.666415D-05	0.621962D-05	0.174216D-04	-0.107867D-04
28	0.721132D-05	0.320649D-04	0.582136D-05	0.328609D-04	-0.179385D-04
29	-0.219165D-05	-0.260936D-04	0.638352D-05	-0.467169D-05	-0.238779D-04
30	-0.689966D-05	-0.277082D-04	0.191163D-05	-0.247501D-04	0.458941D-05
31	-0.102051D-04	-0.168580D-05	-0.107578D-05	0.916262D-05	0.105706D-04
32	0.981189D-05	0.124542D-04	-0.436368D-04	-0.440588D-05	0.242680D-05
33	0.563159D-05	-0.331043D-04	-0.412616D-04	0.435267D-04	0.180395D-04
34	0.184777D-04	0.316300D-04	0.561257D-04	0.300178D-04	0.153190D-06
35	-0.469980D-04	-0.672018D-04	-0.133593D-03	-0.120808D-03	0.128179D-03
36	0.300482D-05	-0.501800D-04	0.470545D-04	0.145966D-03	-0.639752D-04
37	-0.429304D-05	-0.123030D-04	0.542624D-04	-0.890918D-05	0.402970D-04
38	0.308826D-04	0.388306D-04	0.390576D-04	0.706340D-04	-0.791723D-06
39	0.432641D-04	0.535232D-04	0.890961D-04	0.198693D-03	-0.458615D-04
40	-0.833422D-04	0.103395D-03	0.132073D-03	0.416716D-03	0.119435D-03
41	0.146562D-05	-0.127624D-04	0.131723D-05	0.222223D-05	0.875042D-05
42	0.642164D-06	0.445203D-05	0.659849D-05	0.103035D-04	-0.404537D-05
43	0.137606D-04	0.411987D-04	0.269440D-04	-0.136861D-04	-0.418846D-05

44	-0.112870D-04	-0.296820D-04	-0.322847D-04	-0.362247D-05	-0.233797D-04
45	-0.113277D-04	-0.124857D-04	0.189867D-04	-0.800804D-05	0.332045D-04
46	-0.287528D-05	0.168598D-04	-0.485551D-05	-0.638015D-05	-0.145127D-04
47	0.108797D-04	-0.273497D-04	0.385123D-06	-0.236755D-05	0.170383D-04
48	0.652235D-07	0.764508D-05	-0.101170D-04	-0.241550D-04	0.820572D-05
49	-0.204938D-03	0.361962D-03	0.429543D-03	0.135459D-02	0.300231D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.137707D-01				
7	-0.107677D-02	0.295921D-02			
8	-0.232821D-03	-0.344319D-03	0.298200D-02		
9	0.171609D-04	-0.367246D-03	-0.281936D-03	0.118090D-02	
10	-0.184185D-04	0.443836D-03	0.252483D-03	0.151282D-03	0.151247D-02
11	-0.224686D-06	-0.758523D-05	0.466606D-05	0.213888D-06	-0.390071D-05
12	0.110300D-04	-0.727066D-05	0.141137D-04	0.328937D-05	0.240970D-05
13	0.113151D-03	-0.488343D-04	-0.444123D-04	0.340237D-04	-0.339996D-04
14	0.188583D-04	-0.180144D-04	-0.100021D-04	0.192317D-04	0.276512D-05
15	-0.682318D-04	-0.396845D-04	-0.514847D-05	0.364185D-04	0.104664D-04
16	0.121478D-03	0.680257D-04	0.585215D-04	-0.449814D-04	-0.409128D-04
17	0.712871D-05	0.982626D-05	-0.791657D-05	-0.580810D-07	-0.112512D-04
18	0.687988D-04	-0.320856D-05	-0.909921D-05	0.693094D-05	-0.690443D-05
19	0.393277D-04	-0.143026D-04	-0.809511D-04	0.148926D-04	0.122209D-04
20	0.698227D-04	-0.273547D-04	0.792371D-06	0.229595D-05	-0.300942D-05
21	-0.390988D-04	-0.155762D-04	0.815982D-05	-0.124168D-05	-0.259741D-04
22	0.249690D-04	-0.404830D-04	-0.768264D-04	0.214656D-04	-0.422822D-04
23	-0.524454D-05	-0.686589D-05	-0.552571D-04	-0.108813D-04	0.502716D-04
24	0.608929D-04	0.165969D-04	-0.153954D-04	0.763740D-06	-0.206728D-04
25	0.347054D-04	0.411989D-04	-0.469453D-04	0.160840D-04	-0.678585D-04
26	-0.146991D-04	0.394867D-04	-0.265048D-05	-0.239811D-05	0.102865D-04
27	-0.880000D-04	0.791620D-04	-0.779165D-05	-0.331159D-04	0.323280D-04
28	0.830358D-04	-0.451859D-04	0.188362D-04	0.601853D-05	-0.269599D-04
29	0.158504D-04	0.339700D-04	-0.424575D-04	0.539366D-05	0.101483D-04
30	0.444713D-04	0.115860D-04	-0.223734D-04	-0.479767D-05	0.237775D-04
31	-0.492914D-04	-0.291017D-04	0.911310D-04	0.585023D-06	-0.583652D-04
32	0.327366D-03	0.403672D-03	0.649462D-04	0.166064D-03	0.380458D-04
33	0.296505D-03	-0.417059D-04	-0.311597D-04	0.354868D-04	-0.163319D-04
34	-0.118305D-03	0.203567D-04	0.652950D-04	-0.115114D-03	0.200361D-04
35	-0.146332D-03	-0.962310D-04	0.282756D-04	0.294253D-04	0.262187D-04
36	-0.134351D-03	-0.339870D-03	0.123820D-03	-0.320834D-04	-0.153931D-03
37	-0.947103D-04	-0.135162D-03	0.116609D-03	-0.777254D-04	-0.123590D-03
38	-0.791721D-03	0.214672D-03	-0.236792D-04	-0.120390D-03	0.144588D-03



39	-0.446223D-03	0.119950D-03	-0.511288D-04	-0.277994D-03	0.135604D-03
40	0.135657D-02	-0.227235D-03	0.303429D-03	0.126166D-03	0.271544D-03
41	0.744740D-05	0.152352D-04	-0.684679D-05	-0.276067D-05	0.110880D-04
42	0.532443D-04	0.130298D-04	-0.302915D-04	0.842992D-05	0.927781D-05
43	-0.104864D-03	-0.598643D-04	0.218610D-04	0.234326D-04	-0.497249D-04
44	0.157902D-03	0.422140D-04	0.289308D-05	-0.348956D-04	0.638495D-05
45	-0.161672D-03	0.129483D-04	-0.785623D-05	0.561206D-04	0.624422D-04
46	-0.654911D-04	0.125557D-04	0.111712D-06	-0.362272D-04	-0.126422D-04
47	-0.510844D-04	0.555242D-04	0.207971D-04	0.270970D-04	0.223775D-04
48	-0.415701D-04	0.443347D-05	0.242687D-04	0.673839D-05	0.314583D-04
49	0.276399D-02	-0.564658D-03	0.750916D-03	0.202195D-03	0.848267D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.343911D-04				
12	0.164085D-04	0.737524D-04			
13	0.108204D-04	0.697350D-04	0.568038D-03		
14	-0.797265D-05	-0.157277D-04	-0.138008D-04	0.136899D-03	
15	-0.138212D-05	-0.137858D-04	-0.854677D-04	0.730960D-04	0.563163D-03
16	0.863233D-05	0.183760D-04	0.108502D-04	-0.569930D-04	-0.242363D-03
17	0.461033D-05	0.166060D-04	0.149298D-04	-0.157911D-04	-0.638901D-05
18	0.126856D-05	0.173997D-04	0.116345D-03	-0.526680D-05	-0.564633D-04
19	-0.310677D-05	-0.109904D-04	-0.252839D-04	0.145619D-04	0.135291D-03
20	-0.168229D-06	0.145683D-05	0.245591D-04	0.130407D-05	-0.127546D-04
21	0.319811D-05	0.190980D-04	0.129151D-04	-0.232942D-04	-0.708391D-05
22	-0.295242D-07	0.151764D-04	0.184348D-03	-0.128815D-04	-0.755231D-04
23	-0.159845D-05	0.818314D-06	-0.109157D-04	0.254716D-04	0.175931D-03
24	0.440536D-05	-0.100890D-05	0.529160D-04	-0.843088D-06	-0.108536D-04
25	0.186722D-04	0.129362D-04	0.941372D-04	0.118651D-05	-0.293123D-04
26	-0.144227D-05	-0.211592D-04	-0.147005D-04	0.847007D-05	0.391122D-05
27	0.210624D-05	-0.908592D-05	-0.187777D-03	0.382039D-05	0.786923D-04
28	-0.524764D-05	0.423312D-05	0.145060D-04	0.365651D-05	-0.192661D-03
29	0.189724D-05	-0.521386D-05	-0.342156D-04	0.221980D-05	0.205442D-04
30	-0.425903D-06	-0.779060D-06	-0.794676D-04	0.932688D-05	0.524601D-04
31	-0.626226D-05	0.132110D-05	0.765032D-04	0.173497D-05	-0.328568D-04
32	-0.827160D-05	-0.292027D-04	0.131230D-04	0.485138D-05	-0.911293D-04
33	-0.746712D-06	-0.246345D-04	0.504493D-04	0.354792D-04	-0.943062D-05
34	0.157034D-05	0.236602D-04	-0.923973D-05	-0.680482D-04	0.352875D-04
35	-0.581679D-05	-0.173058D-04	-0.293561D-04	0.158915D-04	-0.556687D-05
36	0.365174D-05	0.275730D-04	0.287573D-04	0.349229D-04	0.141442D-03
37	0.111457D-04	0.438358D-04	0.462581D-04	-0.235311D-04	0.829988D-04
38	0.922364D-05	0.109440D-04	-0.638502D-05	-0.661993D-04	-0.700574D-04

39	0.182794D-04	0.278379D-04	-0.850129D-06	-0.627588D-04	-0.321946D-04
40	0.239144D-04	0.433089D-04	0.195081D-04	0.980671D-04	0.209082D-04
41	0.210445D-05	0.158406D-05	-0.127436D-05	-0.574756D-05	0.851425D-05
42	-0.100468D-05	-0.211008D-05	-0.857078D-05	-0.267130D-05	-0.180946D-04
43	0.326925D-05	0.573280D-05	0.506312D-04	-0.116177D-04	0.345594D-04
44	-0.108569D-04	-0.101316D-04	-0.258040D-04	0.170983D-04	-0.158855D-04
45	0.112667D-04	0.140553D-05	-0.934697D-05	-0.141935D-04	0.186710D-04
46	-0.328184D-05	-0.678467D-05	-0.766321D-05	-0.143453D-04	0.839989D-05
47	-0.564693D-05	0.183186D-05	-0.229732D-05	0.154956D-04	-0.386284D-05
48	0.696542D-05	0.224995D-05	-0.204115D-04	0.814749D-05	0.165740D-04
49	0.807192D-04	0.142746D-03	0.611355D-04	0.249694D-03	0.410285D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.223494D-02				
17	0.958758D-05	0.535626D-04			
18	0.320970D-04	0.238953D-04	0.216415D-03		
19	-0.245888D-03	-0.103187D-04	-0.658761D-04	0.428489D-03	
20	0.151734D-04	0.954927D-05	0.774295D-04	-0.834568D-04	0.326296D-03
21	0.257890D-04	0.191021D-04	0.600249D-05	-0.792113D-06	-0.155633D-05
22	0.240945D-04	0.108442D-04	0.938654D-04	-0.398288D-04	0.333023D-04
23	-0.371096D-03	-0.127885D-04	-0.203895D-04	0.173371D-03	-0.362910D-04
24	0.668048D-04	0.159010D-04	0.825368D-04	-0.707954D-04	0.138410D-03
25	0.836598D-04	0.159302D-04	0.479184D-04	-0.358097D-04	0.619292D-04
26	0.199184D-06	-0.138088D-04	-0.628241D-05	0.119410D-04	-0.519507D-05
27	0.231892D-05	-0.595849D-05	-0.749923D-04	0.416702D-04	-0.299068D-04
28	0.290082D-03	-0.738566D-05	0.203265D-04	-0.127538D-03	0.186226D-04
29	-0.286257D-04	-0.105879D-04	-0.902061D-04	0.732986D-04	-0.959195D-04
30	-0.553917D-04	-0.549127D-05	-0.429224D-04	0.437460D-04	-0.146866D-04
31	0.250577D-04	0.899592D-05	0.371249D-04	-0.284102D-04	0.265451D-04
32	0.166007D-03	-0.271682D-04	-0.296912D-05	0.311567D-04	-0.424329D-04
33	-0.249919D-04	-0.169824D-04	-0.121457D-04	0.130932D-04	0.693801D-05
34	0.193339D-04	0.491849D-05	-0.147344D-04	0.150845D-05	-0.107004D-04
35	-0.773762D-04	-0.141081D-05	0.527114D-06	0.442346D-04	0.315375D-04
36	-0.261891D-03	0.403026D-04	-0.384986D-04	-0.200568D-04	0.644435D-04
37	-0.255480D-03	0.172255D-04	-0.115875D-04	-0.260150D-04	-0.491089D-05
38	0.235796D-03	-0.327198D-04	-0.348485D-04	0.262238D-04	-0.125877D-03
39	0.174138D-03	-0.200973D-04	-0.249618D-04	-0.167480D-04	-0.933776D-04
40	0.212416D-03	-0.773928D-04	0.128520D-03	-0.276624D-03	-0.752132D-04
41	-0.918810D-05	0.271911D-05	-0.165790D-05	0.117436D-04	-0.436933D-05
42	0.360051D-05	0.174084D-06	-0.616011D-05	-0.379254D-05	-0.742976D-05
43	0.247275D-04	-0.984561D-05	-0.175292D-04	-0.263373D-05	-0.255643D-04

44	-0.557169D-05	0.807531D-05	0.241682D-04	0.156365D-05	0.179143D-04
45	0.761267D-04	-0.259837D-05	-0.311623D-04	-0.155963D-04	-0.306710D-04
46	-0.267165D-04	-0.102821D-05	-0.189199D-04	0.393776D-04	0.843834D-06
47	0.128382D-04	-0.257281D-05	-0.384927D-05	-0.399876D-04	-0.147519D-04
48	-0.283840D-04	0.899414D-06	-0.947776D-05	0.156634D-04	0.434122D-05
49	0.697577D-03	-0.253861D-03	0.343016D-03	-0.797860D-03	-0.286634D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.130305D-03				
22	0.544614D-04	0.576308D-03			
23	-0.302742D-04	-0.155066D-03	0.110748D-02		
24	0.237256D-05	0.142820D-03	-0.148186D-03	0.450884D-03	
25	0.239681D-04	0.379805D-03	-0.408471D-03	0.349743D-03	0.221736D-02
26	-0.180347D-04	-0.378779D-05	0.109258D-04	-0.264115D-06	-0.730232D-05
27	-0.239944D-05	-0.145053D-03	0.470289D-04	-0.487085D-04	-0.878555D-04
28	-0.606734D-05	0.316389D-04	-0.202916D-03	0.339720D-04	0.102011D-03
29	0.585901D-06	-0.402453D-04	0.450271D-04	-0.976504D-04	-0.638170D-04
30	0.203245D-05	-0.201165D-03	0.187282D-03	-0.168896D-03	-0.471383D-03
31	0.104267D-04	0.435856D-04	-0.901244D-04	0.528530D-04	0.110981D-03
32	-0.485067D-04	-0.683647D-05	-0.323445D-04	-0.510567D-04	-0.150577D-03
33	0.384317D-06	0.474106D-04	-0.150338D-05	0.272953D-05	0.711163D-04
34	0.125037D-04	0.705757D-04	-0.807006D-05	-0.167799D-04	0.621043D-04
35	0.171947D-04	-0.117199D-04	-0.578950D-05	0.133998D-04	-0.518546D-04
36	0.538491D-04	-0.224010D-05	0.157757D-03	0.331235D-04	0.155598D-03
37	0.570844D-04	0.816666D-06	0.739178D-04	0.562695D-04	0.141752D-03
38	0.327731D-04	0.599621D-04	0.698544D-04	-0.250760D-04	0.231978D-03
39	0.368344D-04	0.321809D-04	0.339909D-04	0.337713D-04	0.220549D-03
40	-0.874179D-04	-0.725042D-04	-0.412829D-03	0.278542D-03	0.169202D-03
41	0.294174D-05	-0.111757D-04	0.830483D-05	-0.521328D-05	-0.354362D-05
42	-0.528692D-07	-0.262408D-05	-0.275327D-05	0.120466D-05	0.183910D-05
43	0.127162D-04	0.114662D-04	0.356168D-04	0.175010D-05	-0.699582D-04
44	-0.511095D-05	-0.163911D-04	-0.253330D-04	-0.536186D-05	0.676822D-04
45	-0.124032D-05	0.294205D-04	0.204841D-04	0.235110D-04	-0.840011D-04
46	0.155892D-04	-0.887219D-05	0.343150D-04	-0.125747D-04	-0.107824D-04
47	-0.430929D-05	-0.171262D-06	-0.386190D-04	0.169962D-06	0.436082D-04
48	-0.438264D-05	-0.184289D-05	0.297270D-04	-0.245062D-05	0.143167D-04
49	-0.246562D-03	-0.175490D-03	-0.110498D-02	0.805819D-03	0.701271D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

26	27	28	29	30
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26	0.109826D-03				
27	0.443765D-04	0.479022D-03			
28	-0.233580D-04	-0.120295D-03	0.898352D-03		
29	0.157223D-04	0.105875D-03	-0.108837D-03	0.388286D-03	
30	0.742835D-05	0.174262D-03	-0.135289D-03	0.168525D-03	0.887331D-03
31	-0.146692D-04	-0.286983D-03	0.200207D-03	-0.208597D-03	-0.364855D-03
32	0.385494D-04	0.303057D-04	-0.110309D-04	0.407705D-05	0.669231D-04
33	0.166273D-04	-0.201850D-04	-0.334802D-04	0.380162D-04	-0.191082D-04
34	-0.333877D-04	0.483577D-05	-0.227520D-04	-0.683047D-05	-0.615956D-04
35	0.120344D-04	-0.190247D-04	0.870695D-05	-0.319400D-04	0.321900D-04
36	-0.628040D-04	-0.747754D-04	-0.100153D-03	0.596082D-04	-0.561995D-04
37	-0.434257D-04	-0.344982D-04	0.448303D-04	0.163047D-04	-0.566212D-04
38	0.597318D-08	-0.454034D-05	0.482400D-04	0.240894D-04	-0.164557D-04
39	-0.438135D-04	0.111983D-04	0.962249D-04	0.292506D-04	-0.323295D-04
40	0.192915D-04	-0.248417D-04	0.291800D-03	-0.208656D-03	-0.854505D-04
41	-0.351516D-05	0.610319D-05	-0.563280D-05	0.327719D-06	0.136460D-04
42	-0.237667D-05	0.244613D-05	0.660220D-05	0.644239D-05	0.306423D-05
43	-0.119272D-04	0.301494D-05	-0.115744D-05	0.235224D-05	-0.526618D-05
44	0.383834D-05	-0.821150D-05	0.483911D-04	-0.936580D-05	-0.188056D-05
45	0.886272D-05	0.171594D-04	-0.786102D-04	0.240688D-04	0.179058D-04
46	0.124975D-05	-0.336416D-05	0.958538D-05	0.107666D-04	0.917780D-06
47	0.811224D-06	0.198003D-05	0.233653D-04	0.102200D-04	-0.301615D-04
48	-0.279080D-05	0.118199D-04	-0.132307D-04	0.444407D-05	0.104963D-04
49	0.535910D-04	-0.697749D-04	0.921236D-03	-0.584911D-03	-0.287381D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.140263D-02				
32	-0.918479D-04	0.947437D-02			
33	-0.809129D-05	0.626207D-04	0.398280D-02		
34	-0.228574D-04	0.128597D-03	-0.238539D-02	0.461880D-02	
35	0.121357D-03	-0.664218D-04	0.267983D-03	-0.511882D-03	0.291163D-02
36	0.108823D-03	-0.944958D-02	-0.123501D-03	-0.891339D-04	0.234767D-04
37	0.196114D-03	-0.940591D-02	-0.798815D-04	-0.106864D-03	0.660104D-05
38	-0.750882D-04	0.835345D-03	0.890018D-05	0.248347D-03	-0.547815D-04
39	0.130971D-04	0.869193D-03	-0.103876D-03	0.414026D-03	-0.244853D-03
40	0.117832D-03	0.633986D-03	-0.271874D-03	0.417117D-03	-0.762566D-03
41	0.138210D-04	0.459209D-04	-0.172765D-04	0.840080D-05	0.135550D-04
42	-0.629560D-05	0.229500D-06	-0.522387D-05	0.340010D-04	-0.259032D-04
43	0.779573D-05	-0.133733D-03	-0.726636D-04	0.751962D-04	0.127400D-04
44	0.152971D-04	0.161964D-03	0.260396D-04	-0.310828D-04	-0.360519D-04

45	-0.303888D-04	-0.328678D-04	0.148816D-05	-0.264780D-06	0.262892D-04
46	0.298620D-04	-0.539449D-04	0.318334D-04	0.149839D-04	0.139498D-03
47	0.131922D-04	0.888877D-04	-0.402566D-04	-0.569452D-05	-0.134319D-03
48	0.317288D-04	0.835375D-04	0.278281D-05	0.491090D-04	0.931069D-04
49	0.369435D-03	0.251031D-02	-0.863486D-03	0.146527D-02	-0.234381D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.139721D-01				
37	0.936764D-02	0.124503D-01			
38	-0.668653D-03	-0.731025D-03	0.157947D-01		
39	-0.847126D-03	-0.109197D-02	0.103914D-01	0.147170D-01	
40	-0.957934D-03	-0.962679D-03	0.490120D-03	0.617139D-02	0.451244D-01
41	0.657616D-05	-0.289981D-04	0.234119D-04	0.252972D-04	-0.246301D-04
42	0.115454D-04	0.307759D-05	-0.130740D-04	0.662135D-04	-0.289738D-04
43	0.593799D-04	0.157195D-03	0.104595D-03	0.521295D-04	-0.534231D-03
44	-0.101994D-03	-0.128235D-03	-0.166108D-03	-0.440858D-04	0.455530D-03
45	-0.423095D-04	-0.549062D-05	0.165739D-03	0.132975D-05	-0.136650D-03
46	0.598893D-04	0.382068D-04	-0.901651D-04	-0.781011D-04	-0.287641D-03
47	-0.634151D-04	-0.669535D-04	0.705010D-04	0.440587D-04	0.206282D-03
48	-0.667433D-04	-0.694334D-04	-0.946906D-06	0.949927D-05	0.267851D-04
49	-0.324811D-02	-0.342854D-02	0.118993D-01	0.285777D-01	0.133874D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.919233D-04				
42	0.153504D-05	0.110192D-03			
43	-0.184380D-04	-0.759177D-05	0.200096D-02		
44	0.352577D-05	0.107873D-04	-0.115900D-02	0.145315D-02	
45	-0.167659D-04	-0.806742D-05	0.724512D-03	-0.132086D-02	0.245000D-02
46	-0.105686D-04	0.108313D-05	0.185370D-03	-0.181629D-03	0.170727D-03
47	0.103654D-04	0.154713D-05	-0.119139D-03	0.175920D-03	-0.275176D-03
48	0.216887D-06	-0.144403D-05	0.255511D-04	-0.425674D-07	0.420301D-04
49	-0.503457D-04	-0.947729D-04	-0.150314D-02	0.120841D-02	-0.274464D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.698624D-03			

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47 -0.431251D-03  0.762056D-03
48  0.109503D-03 -0.136786D-03  0.513823D-03
49 -0.910168D-03  0.654965D-03  0.939299D-04  0.407439D+00

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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.223	1.000			
3	0.070	0.243	1.000		
4	0.055	0.213	0.230	1.000	
5	-0.044	-0.303	-0.207	-0.234	1.000
6	-0.016	0.021	0.024	0.010	-0.029
7	0.017	0.009	0.032	0.050	-0.034
8	0.015	-0.014	-0.043	-0.024	0.037
9	0.009	-0.023	0.007	-0.001	0.024
10	0.021	-0.008	-0.005	0.026	0.013
11	0.050	-0.015	-0.052	-0.021	0.027
12	0.002	0.023	-0.008	0.010	0.011
13	-0.001	0.054	0.017	-0.002	-0.032
14	0.000	0.012	0.012	0.003	0.053
15	-0.037	0.009	-0.004	-0.018	0.028
16	-0.018	-0.018	-0.055	0.051	0.002
17	0.003	-0.033	0.024	0.005	0.023
18	-0.005	0.027	0.019	-0.002	0.013
19	0.007	0.022	0.009	-0.041	-0.034
20	0.011	0.026	0.029	-0.024	-0.007
21	0.027	-0.049	-0.045	0.017	0.010
22	0.024	0.020	-0.011	0.045	0.007
23	-0.017	0.009	0.020	-0.043	-0.045
24	0.013	0.012	0.018	0.000	0.021
25	0.074	0.006	-0.039	0.051	0.008
26	0.001	0.032	-0.005	-0.007	-0.041
27	-0.005	-0.014	0.015	0.027	-0.018
28	0.023	0.051	0.011	0.038	-0.022
29	-0.011	-0.063	0.018	-0.008	-0.045
30	-0.022	-0.044	0.003	-0.028	0.006
31	-0.026	-0.002	-0.002	0.008	0.011
32	0.010	0.006	-0.024	-0.002	0.001
33	0.009	-0.025	-0.036	0.024	0.011
34	0.026	0.022	0.045	0.015	0.000
35	-0.083	-0.059	-0.135	-0.077	0.089
36	0.002	-0.020	0.022	0.042	-0.020

37	-0.004	-0.005	0.026	-0.003	0.014
38	0.023	0.015	0.017	0.019	0.000
39	0.034	0.021	0.040	0.056	-0.014
40	-0.037	0.023	0.034	0.067	0.021
41	0.015	-0.063	0.007	0.008	0.034
42	0.006	0.020	0.034	0.034	-0.014
43	0.029	0.044	0.033	-0.010	-0.004
44	-0.028	-0.037	-0.046	-0.003	-0.023
45	-0.022	-0.012	0.021	-0.006	0.025
46	-0.010	0.030	-0.010	-0.008	-0.021
47	0.038	-0.047	0.001	-0.003	0.023
48	0.000	0.016	-0.024	-0.036	0.014
49	-0.031	0.027	0.037	0.073	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.169	1.000			
8	-0.036	-0.116	1.000		
9	0.004	-0.196	-0.150	1.000	
10	-0.004	0.210	0.119	0.113	1.000
11	0.000	-0.024	0.015	0.001	-0.017
12	0.011	-0.016	0.030	0.011	0.007
13	0.040	-0.038	-0.034	0.042	-0.037
14	0.014	-0.028	-0.016	0.048	0.006
15	-0.025	-0.031	-0.004	0.045	0.011
16	0.022	0.026	0.023	-0.028	-0.022
17	0.008	0.025	-0.020	0.000	-0.040
18	0.040	-0.004	-0.011	0.014	-0.012
19	0.016	-0.013	-0.072	0.021	0.015
20	0.033	-0.028	0.001	0.004	-0.004
21	-0.029	-0.025	0.013	-0.003	-0.059
22	0.009	-0.031	-0.059	0.026	-0.045
23	-0.001	-0.004	-0.030	-0.010	0.039
24	0.024	0.014	-0.013	0.001	-0.025
25	0.006	0.016	-0.018	0.010	-0.037
26	-0.012	0.069	-0.005	-0.007	0.025
27	-0.034	0.066	-0.007	-0.044	0.038
28	0.024	-0.028	0.012	0.006	-0.023
29	0.007	0.032	-0.039	0.008	0.013
30	0.013	0.007	-0.014	-0.005	0.021
31	-0.011	-0.014	0.045	0.000	-0.040

32	0.029	0.076	0.012	0.050	0.010
33	0.040	-0.012	-0.009	0.016	-0.007
34	-0.015	0.006	0.018	-0.049	0.008
35	-0.023	-0.033	0.010	0.016	0.012
36	-0.010	-0.053	0.019	-0.008	-0.033
37	-0.007	-0.022	0.019	-0.020	-0.028
38	-0.054	0.031	-0.003	-0.028	0.030
39	-0.031	0.018	-0.008	-0.067	0.029
40	0.054	-0.020	0.026	0.017	0.033
41	0.007	0.029	-0.013	-0.008	0.030
42	0.043	0.023	-0.053	0.023	0.023
43	-0.020	-0.025	0.009	0.015	-0.029
44	0.035	0.020	0.001	-0.027	0.004
45	-0.028	0.005	-0.003	0.033	0.032
46	-0.021	0.009	0.000	-0.040	-0.012
47	-0.016	0.037	0.014	0.029	0.021
48	-0.016	0.004	0.020	0.009	0.036
49	0.037	-0.016	0.022	0.009	0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.326	1.000			
13	0.077	0.341	1.000		
14	-0.116	-0.157	-0.049	1.000	
15	-0.010	-0.068	-0.151	0.263	1.000
16	0.031	0.045	0.010	-0.103	-0.216
17	0.107	0.264	0.086	-0.184	-0.037
18	0.015	0.138	0.332	-0.031	-0.162
19	-0.026	-0.062	-0.051	0.060	0.275
20	-0.002	0.009	0.057	0.006	-0.030
21	0.048	0.195	0.047	-0.174	-0.026
22	0.000	0.074	0.322	-0.046	-0.133
23	-0.008	0.003	-0.014	0.065	0.223
24	0.035	-0.006	0.105	-0.003	-0.022
25	0.068	0.032	0.084	0.002	-0.026
26	-0.023	-0.235	-0.059	0.069	0.016
27	0.016	-0.048	-0.360	0.015	0.152
28	-0.030	0.016	0.020	0.010	-0.271
29	0.016	-0.031	-0.073	0.010	0.044
30	-0.002	-0.003	-0.112	0.027	0.074
31	-0.029	0.004	0.086	0.004	-0.037



32	-0.014	-0.035	0.006	0.004	-0.039
33	-0.002	-0.045	0.034	0.048	-0.006
34	0.004	0.041	-0.006	-0.086	0.022
35	-0.018	-0.037	-0.023	0.025	-0.004
36	0.005	0.027	0.010	0.025	0.050
37	0.017	0.046	0.017	-0.018	0.031
38	0.013	0.010	-0.002	-0.045	-0.023
39	0.026	0.027	0.000	-0.044	-0.011
40	0.019	0.024	0.004	0.039	0.004
41	0.037	0.019	-0.006	-0.051	0.037
42	-0.016	-0.023	-0.034	-0.022	-0.073
43	0.012	0.015	0.047	-0.022	0.033
44	-0.049	-0.031	-0.028	0.038	-0.018
45	0.039	0.003	-0.008	-0.025	0.016
46	-0.021	-0.030	-0.012	-0.046	0.013
47	-0.035	0.008	-0.003	0.048	-0.006
48	0.052	0.012	-0.038	0.031	0.031
49	0.022	0.026	0.004	0.033	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.028	1.000			
18	0.046	0.222	1.000		
19	-0.251	-0.068	-0.216	1.000	
20	0.018	0.072	0.291	-0.223	1.000
21	0.048	0.229	0.036	-0.003	-0.008
22	0.021	0.062	0.266	-0.080	0.077
23	-0.236	-0.053	-0.042	0.252	-0.060
24	0.067	0.102	0.264	-0.161	0.361
25	0.038	0.046	0.069	-0.037	0.073
26	0.000	-0.180	-0.041	0.055	-0.027
27	0.002	-0.037	-0.233	0.092	-0.076
28	0.205	-0.034	0.046	-0.206	0.034
29	-0.031	-0.073	-0.311	0.180	-0.269
30	-0.039	-0.025	-0.098	0.071	-0.027
31	0.014	0.033	0.067	-0.037	0.039
32	0.036	-0.038	-0.002	0.015	-0.024
33	-0.008	-0.037	-0.013	0.010	0.006
34	0.006	0.010	-0.015	0.001	-0.009
35	-0.030	-0.004	0.001	0.040	0.032
36	-0.047	0.047	-0.022	-0.008	0.030

37	-0.048	0.021	-0.007	-0.011	-0.002
38	0.040	-0.036	-0.019	0.010	-0.055
39	0.030	-0.023	-0.014	-0.007	-0.043
40	0.021	-0.050	0.041	-0.063	-0.020
41	-0.020	0.039	-0.012	0.059	-0.025
42	0.007	0.002	-0.040	-0.017	-0.039
43	0.012	-0.030	-0.027	-0.003	-0.032
44	-0.003	0.029	0.043	0.002	0.026
45	0.033	-0.007	-0.043	-0.015	-0.034
46	-0.021	-0.005	-0.049	0.072	0.002
47	0.010	-0.013	-0.009	-0.070	-0.030
48	-0.026	0.005	-0.028	0.033	0.011
49	0.023	-0.054	0.037	-0.060	-0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	1.000				
22	0.199	1.000			
23	-0.080	-0.194	1.000		
24	0.010	0.280	-0.210	1.000	
25	0.045	0.336	-0.261	0.350	1.000
26	-0.151	-0.015	0.031	-0.001	-0.015
27	-0.010	-0.276	0.065	-0.105	-0.085
28	-0.018	0.044	-0.203	0.053	0.072
29	0.003	-0.085	0.069	-0.233	-0.069
30	0.006	-0.281	0.189	-0.267	-0.336
31	0.024	0.048	-0.072	0.066	0.063
32	-0.044	-0.003	-0.010	-0.025	-0.033
33	0.001	0.031	-0.001	0.002	0.024
34	0.016	0.043	-0.004	-0.012	0.019
35	0.028	-0.009	-0.003	0.012	-0.020
36	0.040	-0.001	0.040	0.013	0.028
37	0.045	0.000	0.020	0.024	0.027
38	0.023	0.020	0.017	-0.009	0.039
39	0.027	0.011	0.008	0.013	0.039
40	-0.036	-0.014	-0.058	0.062	0.017
41	0.027	-0.049	0.026	-0.026	-0.008
42	0.000	-0.010	-0.008	0.005	0.004
43	0.025	0.011	0.024	0.002	-0.033
44	-0.012	-0.018	-0.020	-0.007	0.038
45	-0.002	0.025	0.012	0.022	-0.036
46	0.052	-0.014	0.039	-0.022	-0.009

47	-0.014	0.000	-0.042	0.000	0.034
48	-0.017	-0.003	0.039	-0.005	0.013
49	-0.034	-0.011	-0.052	0.059	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.193	1.000			
28	-0.074	-0.183	1.000		
29	0.076	0.245	-0.184	1.000	
30	0.024	0.267	-0.152	0.287	1.000
31	-0.037	-0.350	0.178	-0.283	-0.327
32	0.038	0.014	-0.004	0.002	0.023
33	0.025	-0.015	-0.018	0.031	-0.010
34	-0.047	0.003	-0.011	-0.005	-0.030
35	0.021	-0.016	0.005	-0.030	0.020
36	-0.051	-0.029	-0.028	0.026	-0.016
37	-0.037	-0.014	0.013	0.007	-0.017
38	0.000	-0.002	0.013	0.010	-0.004
39	-0.034	0.004	0.026	0.012	-0.009
40	0.009	-0.005	0.046	-0.050	-0.014
41	-0.035	0.029	-0.020	0.002	0.048
42	-0.022	0.011	0.021	0.031	0.010
43	-0.025	0.003	-0.001	0.003	-0.004
44	0.010	-0.010	0.042	-0.012	-0.002
45	0.017	0.016	-0.053	0.025	0.012
46	0.005	-0.006	0.012	0.021	0.001
47	0.003	0.003	0.028	0.019	-0.037
48	-0.012	0.024	-0.019	0.010	0.016
49	0.008	-0.005	0.048	-0.047	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.025	1.000			
33	-0.003	0.010	1.000		
34	-0.009	0.019	-0.556	1.000	
35	0.060	-0.013	0.079	-0.140	1.000
36	0.025	-0.821	-0.017	-0.011	0.004
37	0.047	-0.866	-0.011	-0.014	0.001

38	-0.016	0.068	0.001	0.029	-0.008
39	0.003	0.074	-0.014	0.050	-0.037
40	0.015	0.031	-0.020	0.029	-0.067
41	0.038	0.049	-0.029	0.013	0.026
42	-0.016	0.000	-0.008	0.048	-0.046
43	0.005	-0.031	-0.026	0.025	0.005
44	0.011	0.044	0.011	-0.012	-0.018
45	-0.016	-0.007	0.000	0.000	0.010
46	0.030	-0.021	0.019	0.008	0.098
47	0.013	0.033	-0.023	-0.003	-0.090
48	0.037	0.038	0.002	0.032	0.076
49	0.015	0.040	-0.021	0.034	-0.068

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.710	1.000			
38	-0.045	-0.052	1.000		
39	-0.059	-0.081	0.682	1.000	
40	-0.038	-0.041	0.018	0.239	1.000
41	0.006	-0.027	0.019	0.022	-0.012
42	0.009	0.003	-0.010	0.052	-0.013
43	0.011	0.031	0.019	0.010	-0.056
44	-0.023	-0.030	-0.035	-0.010	0.056
45	-0.007	-0.001	0.027	0.000	-0.013
46	0.019	0.013	-0.027	-0.024	-0.051
47	-0.019	-0.022	0.020	0.013	0.035
48	-0.025	-0.027	0.000	0.003	0.006
49	-0.043	-0.048	0.148	0.369	0.987

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.015	1.000			
43	-0.043	-0.016	1.000		
44	0.010	0.027	-0.680	1.000	
45	-0.035	-0.016	0.327	-0.700	1.000
46	-0.042	0.004	0.157	-0.180	0.130
47	0.039	0.005	-0.096	0.167	-0.201
48	0.001	-0.006	0.025	0.000	0.037

49	-0.008	-0.014	-0.053	0.050	-0.009
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# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.591	1.000		
48	0.183	-0.219	1.000	
49	-0.054	0.037	0.006	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.059	36
200	1.017	4
300	1.010	30
400	1.004	30
500	1.004	32
600	1.006	37
700	1.005	37
800	1.007	36
900	1.003	36
1000	1.002	36

This is the interaction between latent profile categories and bullying on improving physical health

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	0.971	0.971	0.971	0.971	0.971
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.966
PRESS15	0.966	0.966	0.966	0.966	0.966
DUTIES15	0.966	0.966	0.966	0.966	0.966

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.963			
BULLY15	0.963	0.966		
PRESS15	0.963	0.966	0.966	
DUTIES15	0.963	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	Percentiles 20%/60%	40%/80%	Median
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CLU2		0.316	0.793	0.000	68.42%	0.000	0.000	0.000
	57.000	0.216	-1.372	1.000	31.58%	0.000	1.000	
CLU3		0.439	0.247	0.000	56.14%	0.000	0.000	0.000
	57.000	0.246	-1.939	1.000	43.86%	1.000	1.000	
PHY15		0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
	1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15		0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
	1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15		0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
	1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15		1.312	2.479	1.000	79.02%	1.000	1.000	1.000
	1373.000	0.474	6.315	5.000	0.44%	1.000	2.000	
PRESS15		0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
	1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15		0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
	1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.827	0.118	0.000	0.614	1.064	*
CHOICE15	-0.048	0.032	0.072	-0.111	0.017	
DUTIES15	0.032	0.039	0.191	-0.047	0.114	
PRESS15	-0.002	0.034	0.467	-0.070	0.060	
KES15	0.165	0.054	0.001	0.059	0.273	*



KES15	WITH					
PHY15		0.071	0.009	0.000	0.054	0.088 *
CHOICE15		-0.135	0.024	0.000	-0.184	-0.091 *
BULLY15		0.127	0.015	0.000	0.099	0.156 *
PRESS15		0.207	0.024	0.000	0.161	0.256 *
DUTIES15		-0.207	0.022	0.000	-0.250	-0.163 *
PHY15	WITH					
CHOICE15		-0.033	0.012	0.002	-0.057	-0.010 *
BULLY15		0.012	0.007	0.048	-0.002	0.026
PRESS15		0.016	0.011	0.077	-0.005	0.039
DUTIES15		-0.009	0.010	0.203	-0.032	0.011
CHOICE15	WITH					
BULLY15		-0.122	0.021	0.000	-0.163	-0.082 *
PRESS15		-0.183	0.033	0.000	-0.248	-0.117 *
DUTIES15		0.160	0.030	0.000	0.105	0.221 *
BULLY15	WITH					
PRESS15		0.175	0.021	0.000	0.135	0.218 *
DUTIES15		-0.136	0.020	0.000	-0.175	-0.099 *
PRESS15	WITH					
DUTIES15		-0.242	0.030	0.000	-0.300	-0.183 *
Means						
PHY15		0.000	0.010	0.493	-0.020	0.020
KES15		0.001	0.021	0.483	-0.041	0.042
CHOICE15		-0.001	0.030	0.488	-0.058	0.059
PRESS15		0.002	0.030	0.474	-0.057	0.058
DUTIES15		0.000	0.027	0.497	-0.050	0.052
Variances						
PHY15		0.154	0.006	0.000	0.144	0.166 *
KES15		0.613	0.024	0.000	0.570	0.665 *
CHOICE15		1.250	0.049	0.000	1.160	1.352 *
BULLY15		0.456	0.018	0.000	0.423	0.493 *
PRESS15		1.207	0.047	0.000	1.121	1.304 *
DUTIES15		0.975	0.037	0.000	0.908	1.051 *

Between Level

S1 ON

CLU2	-0.277	0.260	0.113	-0.834	0.184	
CLU3	-0.104	0.248	0.337	-0.660	0.322	
PHYCAT16 ON						
CLU2	-0.155	0.128	0.112	-0.408	0.087	
CLU3	-0.056	0.119	0.307	-0.298	0.187	
BULLY15	0.198	0.311	0.261	-0.432	0.813	
CLU2 WITH						
CLU3	-0.137	0.038	0.000	-0.229	-0.076	*
BULLY15	-0.006	0.021	0.379	-0.048	0.033	
CLU3 WITH						
BULLY15	0.000	0.021	0.495	-0.044	0.043	
Means						
CLU2	0.318	0.063	0.000	0.192	0.441	*
CLU3	0.438	0.068	0.000	0.304	0.567	*
BULLY15	1.304	0.042	0.000	1.220	1.389	*
Intercepts						
S1	0.200	0.220	0.147	-0.184	0.660	
Thresholds						
PHYCAT16\$1	-0.223	0.409	0.281	-1.051	0.573	
Variances						
CLU2	0.231	0.045	0.000	0.166	0.337	*
CLU3	0.262	0.050	0.000	0.185	0.383	*
BULLY15	0.065	0.018	0.000	0.038	0.108	*
Residual Variances						
PHYCAT16	0.007	0.010	0.000	0.000	0.039	*
S1	0.052	0.077	0.000	0.002	0.297	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
			Lower 2.5%	Upper 2.5%	

Within-Level Standardized Estimates Averaged Over Clusters

S1   PHYCAT16 ON						
BULLY15	0.041	0.047	0.187	-0.047	0.134	
PHYCAT16 ON						
PHY15	0.297	0.038	0.000	0.224	0.370	*
CHOICE15	-0.049	0.034	0.072	-0.115	0.018	
DUTIES15	0.030	0.035	0.190	-0.038	0.103	
PRESS15	-0.003	0.035	0.469	-0.070	0.064	
KES15	0.117	0.037	0.000	0.042	0.189	*
KES15 WITH						
PHY15	0.230	0.026	0.000	0.178	0.278	*
CHOICE15	-0.154	0.026	0.000	-0.206	-0.105	*
BULLY15	0.240	0.026	0.000	0.188	0.290	*
PRESS15	0.241	0.025	0.000	0.189	0.291	*
DUTIES15	-0.267	0.025	0.000	-0.316	-0.216	*
PHY15 WITH						
CHOICE15	-0.075	0.027	0.004	-0.126	-0.022	*
BULLY15	0.046	0.028	0.051	-0.009	0.100	
PRESS15	0.036	0.027	0.091	-0.015	0.089	
DUTIES15	-0.023	0.027	0.201	-0.077	0.028	
CHOICE15 WITH						
BULLY15	-0.161	0.027	0.000	-0.212	-0.109	*
PRESS15	-0.149	0.026	0.000	-0.200	-0.096	*
DUTIES15	0.145	0.026	0.000	0.094	0.197	*
BULLY15 WITH						
PRESS15	0.236	0.026	0.000	0.184	0.287	*
DUTIES15	-0.204	0.027	0.000	-0.255	-0.151	*
PRESS15 WITH						
DUTIES15	-0.225	0.026	0.000	-0.273	-0.173	*
Means						
PHY15	0.000	0.027	0.496	-0.050	0.051	
KES15	0.000	0.027	0.496	-0.051	0.054	
CHOICE15	0.000	0.027	0.493	-0.053	0.054	
PRESS15	0.000	0.027	0.494	-0.051	0.053	
DUTIES15	-0.001	0.027	0.491	-0.053	0.053	

Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1	ON					
CLU2		-0.509	0.363	0.113	-1.054	0.338
CLU3		-0.189	0.407	0.337	-0.848	0.693
PHYCAT16	ON					
CLU2		-0.509	0.374	0.112	-1.093	0.339
CLU3		-0.189	0.394	0.307	-0.903	0.642
BULLY15		0.377	0.442	0.261	-0.685	0.935
CLU2	WITH					
CLU3		-0.563	0.090	0.000	-0.710	-0.355 *
BULLY15		-0.048	0.160	0.379	-0.353	0.270
CLU3	WITH					
BULLY15		-0.001	0.156	0.495	-0.310	0.310
Means						
CLU2		0.660	0.146	0.000	0.375	0.943 *
CLU3		0.856	0.154	0.000	0.569	1.179 *
BULLY15		5.113	0.708	0.000	3.906	6.705 *
Intercepts						
S1		0.758	0.668	0.147	-0.765	1.856
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.347	0.254	0.000	0.016	0.907 *
S1		0.685	0.239	0.000	0.086	0.983 *

# R-SQUARE

## Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.163	0.034	0.000	0.107	0.239

## Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.653	0.254	0.000	0.093	0.984

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.315	0.239	0.000	0.017	0.914

## TECHNICAL 1 OUTPUT

### PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

\_\_\_\_\_

0

NU

PHYCAT16

\_\_\_\_\_

0

PHY15

\_\_\_\_\_

0

KES15

\_\_\_\_\_

0

CHOICE15

\_\_\_\_\_

0

BULLY15

\_\_\_\_\_

0

NU

PRESS15

\_\_\_\_\_

0

DUTIES15

\_\_\_\_\_

0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>0</u>	

ALPHA	
PRESS15	DUTIES15
<u>4</u>	<u>5</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>0</u>	
PHYCAT16	0	0	0	0	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA	
PRESS15	DUTIES15
<u>9</u>	<u>10</u>
PHYCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>11</u>	<u>13</u>	<u>16</u>	<u>15</u>	
PHYCAT16	0	11			
PHY15	0	12			
KES15	0	13			
CHOICE15	0	14			

BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI	
PRESS15	DUTIES15
PRESS15	25
DUTIES15	30
	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
49

NU	PHYCAT16	CLU2	CLU3	BULLY15
	0	0	0	0

LAMBDA	S1	PHYCAT16	CLU2	CLU3	BULLY15
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

THETA	PHYCAT16	CLU2	CLU3	BULLY15
PHYCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
BULLY15	0	0	0	0



ALPHA					
S1		PHYCAT16	CLU2	CLU3	BULLY15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>	<u>35</u>

	BETA				
	S1	PHYCAT16	CLU2	CLU3	BULLY15
	<u>0</u>	<u>0</u>	<u>36</u>	<u>37</u>	<u>0</u>
S1	0	0	38	39	40
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

	PSI				
	S1	PHYCAT16	CLU2	CLU3	BULLY15
	<u>41</u>	<u></u>	<u></u>	<u></u>	<u></u>
S1	0	42			
PHYCAT16	0	0	43		
CLU2	0	0	44	45	
CLU3	0	0	46	47	48
BULLY15	0	0			

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15

<u>0.000</u>	<u>0.000</u>
--------------	--------------

LAMBDA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	

DUTIES15	0.000	0.000
----------	-------	-------

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.077		

KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.604
DUTIES15	0.000
	0.488

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/>
-0.311

NU				
PHYCAT16	CLU2	CLU3	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	

LAMBDA					
S1	PHYCAT16	CLU2	CLU3	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000

THETA				
PHYCAT16	CLU2	CLU3	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	

BULLY15	0.000	0.000	0.000	0.000	
ALPHA					
S1		PHYCAT16	CLU2	CLU3	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.375	<hr/> 0.482	<hr/> 1.312
BETA					
S1		PHYCAT16	CLU2	CLU3	BULLY15
S1	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PSI					
S1		PHYCAT16	CLU2	CLU3	BULLY15
S1	<hr/> 1.000	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.117		
CLU3	0.000	0.000	0.000	0.125	
BULLY15	0.000	0.000	0.000	0.000	0.237

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity

Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1

2

3

4

5

1	0.109757D-03				
2	0.496491D-04	0.458436D-03			
3	-0.170771D-04	-0.107496D-03	0.889544D-03		
4	0.157771D-04	0.153038D-03	-0.154383D-03	0.892738D-03	
5	-0.116693D-04	-0.178871D-03	0.133909D-03	-0.196817D-03	0.713365D-03
6	-0.226347D-04	0.967243D-05	0.418914D-04	-0.244886D-04	-0.547537D-04
7	0.616417D-05	0.834629D-05	0.488156D-04	0.499966D-04	-0.385834D-04
8	0.154713D-04	0.741400D-05	-0.142070D-04	0.368186D-04	-0.124301D-04
9	0.222323D-05	-0.189577D-04	0.130042D-04	0.191237D-05	0.256621D-04
10	0.107866D-04	0.836825D-05	-0.437309D-05	0.514181D-04	0.195859D-05
11	0.339759D-05	0.586503D-06	-0.841449D-05	0.201800D-05	-0.231629D-06
12	0.388553D-06	0.537226D-05	-0.284613D-05	0.446191D-05	0.591817D-06
13	0.885918D-07	0.287031D-04	-0.168072D-05	-0.199830D-05	-0.204741D-04
14	0.911975D-07	0.429103D-05	0.308889D-05	0.195433D-05	0.158952D-04
15	-0.835637D-05	0.526095D-05	-0.847393D-05	-0.975868D-05	0.135364D-04
16	-0.918715D-05	-0.152689D-04	-0.783906D-04	0.892132D-04	-0.205675D-04
17	0.619020D-06	-0.363293D-05	0.504369D-05	0.404243D-06	0.469018D-05
18	-0.142578D-05	0.108660D-04	0.519334D-05	-0.114853D-05	0.451931D-05
19	0.447042D-05	0.656208D-05	0.566702D-05	-0.759819D-05	-0.155940D-04
20	-0.270091D-07	0.150827D-04	0.720531D-06	-0.103048D-04	-0.660312D-05
21	0.343242D-05	-0.100194D-04	-0.873040D-05	0.918984D-05	-0.144376D-05
22	0.611043D-05	0.100902D-04	-0.934310D-05	0.327888D-04	0.342695D-05
23	-0.617509D-05	-0.123591D-04	0.205796D-04	-0.619566D-04	-0.187730D-04
24	-0.186785D-06	0.953809D-05	0.441628D-06	-0.218537D-05	0.108049D-04
25	0.372479D-04	0.844376D-05	-0.601960D-04	0.864434D-04	-0.164459D-05
26	-0.310263D-07	0.689446D-05	-0.452723D-05	-0.125517D-05	-0.117031D-04
27	-0.950857D-06	-0.698588D-05	0.121604D-04	0.141340D-04	-0.956920D-05
28	0.595103D-05	0.341125D-04	-0.935874D-05	0.390751D-04	-0.220402D-04
29	-0.809594D-06	-0.253120D-04	0.283369D-04	-0.127219D-04	-0.156802D-04
30	-0.761146D-05	-0.293861D-04	0.216633D-04	-0.298764D-04	0.106094D-04
31	-0.914059D-05	0.485241D-05	-0.781994D-05	0.204495D-04	0.254110D-05
32	0.599802D-05	-0.141766D-03	-0.103399D-03	0.519729D-06	0.860136D-04
33	0.524064D-05	-0.313838D-04	-0.552321D-04	0.585784D-04	0.572438D-05
34	0.175553D-04	0.269264D-04	0.962253D-04	0.449601D-06	0.250211D-04
35	-0.167083D-04	0.119195D-03	-0.131196D-03	0.147556D-03	-0.108878D-03
36	-0.295150D-05	0.139707D-03	0.372020D-04	0.301406D-03	-0.235586D-03
37	0.297051D-04	0.154412D-03	0.891145D-04	-0.273856D-04	-0.495571D-04
38	0.144482D-04	0.895380D-05	0.181030D-04	-0.718969D-06	0.345008D-05
39	0.395287D-04	0.265347D-04	0.253842D-04	0.104178D-03	-0.731443D-04
40	-0.146582D-04	0.445442D-05	0.411219D-04	-0.112163D-03	0.161816D-03
41	-0.134320D-05	-0.131008D-03	0.841298D-04	-0.474684D-04	0.382463D-04
42	0.630979D-06	-0.427508D-05	0.853999D-05	0.122626D-05	0.598645D-06
43	0.152842D-04	0.236842D-04	0.336345D-04	-0.237588D-04	0.366720D-05

44	-0.169338D-04	-0.221950D-04	-0.369809D-04	-0.921964D-05	-0.220088D-04
45	-0.419817D-05	-0.157702D-04	0.474629D-04	0.112647D-04	0.257839D-04
46	-0.846433D-05	0.180514D-05	-0.464377D-05	-0.995525D-05	0.466416D-05
47	0.175322D-04	-0.119611D-04	0.249522D-05	0.136626D-04	-0.411858D-06
48	0.248910D-05	0.126584D-04	-0.799769D-05	0.304148D-05	0.416429D-05
49	0.103164D-04	0.830868D-04	0.385197D-05	-0.710177D-04	0.130942D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.138256D-01				
7	-0.114407D-02	0.296304D-02			
8	-0.572002D-05	0.124818D-03	0.103204D-02		
9	-0.358148D-04	-0.376882D-03	0.705018D-04	0.117193D-02	
10	-0.209394D-04	0.423983D-03	-0.536261D-04	0.170945D-03	0.152848D-02
11	0.135388D-05	-0.525546D-05	0.385673D-05	0.150881D-06	-0.201999D-05
12	0.166318D-04	-0.674984D-05	0.252421D-05	0.155956D-05	0.246366D-05
13	0.103007D-03	-0.564812D-04	0.217464D-05	0.184645D-04	-0.255050D-04
14	0.212906D-04	-0.212063D-04	-0.108319D-04	0.145220D-04	0.109512D-04
15	-0.539686D-04	-0.216479D-04	-0.117823D-04	0.375133D-04	0.252159D-04
16	0.994093D-04	0.599300D-04	0.629644D-04	-0.289144D-04	-0.560833D-04
17	0.104348D-04	0.112916D-04	0.667747D-06	0.842644D-06	-0.982673D-05
18	0.679649D-04	-0.118205D-05	-0.213692D-05	0.111800D-04	-0.152029D-04
19	0.466373D-04	-0.163411D-04	-0.396120D-04	-0.218432D-05	0.215576D-04
20	0.507227D-04	-0.182280D-04	0.160317D-04	0.105893D-04	0.198443D-05
21	-0.430040D-04	-0.159647D-04	0.608719D-05	0.289769D-05	-0.276056D-04
22	0.182876D-04	-0.325720D-04	-0.410213D-04	0.117954D-04	-0.250753D-04
23	0.327797D-04	0.111813D-05	-0.266529D-04	-0.178479D-04	0.602847D-04
24	0.299960D-04	0.185095D-04	-0.446011D-06	0.715144D-05	-0.157238D-04
25	0.483842D-05	0.693693D-04	-0.881384D-05	0.208664D-04	-0.547549D-04
26	-0.155099D-04	0.393881D-04	0.674038D-05	-0.333450D-05	0.127870D-04
27	-0.888038D-04	0.827689D-04	-0.116753D-04	-0.351226D-04	0.390004D-04
28	0.869636D-04	-0.390529D-04	0.241948D-04	0.327601D-05	-0.432963D-04
29	0.165577D-04	0.230452D-04	-0.243616D-05	-0.187181D-06	0.234092D-04
30	0.612385D-04	-0.186349D-05	0.295869D-05	-0.126187D-04	0.274804D-04
31	-0.391971D-04	-0.250319D-04	0.403682D-04	0.110170D-04	-0.657366D-04
32	-0.513203D-04	-0.485338D-03	0.880437D-05	-0.528827D-03	0.573538D-03
33	0.266804D-03	-0.821688D-04	0.413333D-05	0.137426D-04	0.874105D-05
34	-0.163672D-03	0.217585D-04	0.592409D-04	-0.905809D-04	-0.138464D-04
35	-0.360297D-04	-0.665346D-04	-0.281621D-04	0.326372D-05	0.864275D-05
36	0.575656D-03	-0.482123D-04	0.140860D-03	0.431643D-03	-0.199846D-03
37	0.463228D-03	0.328022D-03	0.997367D-04	0.234571D-03	-0.483322D-03
38	-0.229979D-03	0.449874D-04	-0.287835D-04	-0.136352D-03	0.157948D-03



39	-0.153938D-03	0.655015D-04	0.132536D-03	-0.336819D-03	0.385969D-04
40	0.758483D-03	-0.150134D-03	0.573947D-03	0.393335D-03	0.327471D-03
41	0.278333D-03	0.912739D-04	-0.631893D-04	0.602079D-04	0.203561D-04
42	0.538458D-04	-0.224080D-05	-0.535909D-05	0.152354D-04	0.114414D-04
43	-0.119009D-03	-0.459837D-04	0.479413D-05	0.422359D-04	-0.397492D-04
44	0.204069D-03	0.126487D-04	0.297858D-04	-0.626343D-04	0.343547D-05
45	-0.256735D-03	0.418706D-04	-0.326925D-04	0.824584D-04	0.629385D-04
46	-0.272549D-04	0.211220D-04	-0.308121D-04	-0.294740D-04	-0.182675D-04
47	-0.845103D-04	0.296415D-04	0.172641D-04	0.209626D-04	0.115254D-04
48	0.169539D-04	-0.474720D-04	0.595499D-05	-0.251107D-05	0.125155D-05
49	0.171458D-03	-0.226041D-03	0.823500D-03	0.314430D-03	0.482808D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.344047D-04				
12	0.164396D-04	0.737859D-04			
13	0.108281D-04	0.696984D-04	0.568177D-03		
14	-0.904712D-05	-0.165848D-04	-0.149159D-04	0.140265D-03	
15	-0.127151D-05	-0.151106D-04	-0.906800D-04	0.763805D-04	0.572899D-03
16	0.841437D-05	0.183848D-04	0.104582D-04	-0.661542D-04	-0.244242D-03
17	0.479727D-05	0.168180D-04	0.155446D-04	-0.161441D-04	-0.770853D-05
18	0.928385D-06	0.174061D-04	0.115807D-03	-0.750020D-05	-0.576772D-04
19	-0.833861D-06	-0.997381D-05	-0.235108D-04	0.148336D-04	0.127986D-03
20	-0.848761D-06	0.193524D-05	0.243368D-04	-0.738620D-06	-0.135637D-04
21	0.325895D-05	0.191276D-04	0.128970D-04	-0.254338D-04	-0.956909D-05
22	-0.943398D-07	0.149427D-04	0.184924D-03	-0.136163D-04	-0.875721D-04
23	-0.197759D-05	0.876541D-06	-0.144113D-04	0.284634D-04	0.185367D-03
24	0.454854D-05	-0.134018D-05	0.540084D-04	-0.289146D-05	-0.137117D-04
25	0.184746D-04	0.122310D-04	0.935220D-04	-0.137228D-05	-0.363240D-04
26	-0.142610D-05	-0.210819D-04	-0.146672D-04	0.856877D-05	0.429425D-05
27	0.219749D-05	-0.903309D-05	-0.187600D-03	0.379796D-05	0.778729D-04
28	-0.575733D-05	0.371539D-05	0.156068D-04	-0.208849D-06	-0.187166D-03
29	0.246973D-05	-0.455542D-05	-0.327022D-04	0.425722D-05	0.205288D-04
30	-0.350492D-06	-0.470872D-06	-0.798725D-04	0.106028D-04	0.544278D-04
31	-0.624358D-05	0.123761D-05	0.762683D-04	-0.495441D-06	-0.307450D-04
32	-0.346537D-04	-0.549035D-04	0.857203D-04	-0.483936D-04	-0.768551D-04
33	-0.148131D-05	-0.250699D-04	0.511566D-04	0.324917D-04	-0.684451D-05
34	0.231034D-05	0.242349D-04	-0.971435D-05	-0.643401D-04	0.377503D-04
35	-0.701610D-05	-0.151549D-04	-0.447386D-04	0.137224D-04	-0.895884D-06
36	0.486668D-04	0.795636D-04	0.492596D-04	0.875640D-04	0.995899D-04
37	0.406261D-04	0.101133D-03	0.242336D-04	0.169402D-04	0.135925D-04
38	0.663010D-05	0.143857D-04	-0.176368D-04	-0.335121D-04	-0.392454D-04

39	0.110259D-04	0.229862D-04	-0.319704D-04	-0.326644D-04	-0.272856D-04
40	-0.490188D-05	0.162809D-04	-0.783026D-04	0.406985D-04	-0.793624D-04
41	0.930836D-05	-0.599995D-05	0.749301D-05	-0.500072D-06	0.861577D-04
42	-0.102086D-05	-0.271727D-05	-0.881597D-05	-0.337989D-07	-0.113975D-04
43	0.509234D-05	0.610107D-05	0.506050D-04	-0.780633D-05	0.199805D-04
44	-0.110808D-04	-0.874199D-05	-0.205154D-04	0.145036D-04	-0.610022D-05
45	0.994497D-05	-0.248388D-05	-0.208273D-04	-0.129671D-04	0.932674D-05
46	-0.301736D-05	-0.462735D-05	0.283103D-05	-0.769413D-05	0.147463D-04
47	-0.506233D-05	-0.580686D-06	-0.104285D-04	0.797886D-05	-0.144157D-04
48	0.617942D-05	0.503277D-05	-0.137586D-04	0.679699D-05	0.327153D-05
49	0.133536D-05	0.379265D-04	-0.104926D-03	0.341717D-04	-0.124666D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.236422D-02				
17	0.119281D-04	0.530336D-04			
18	0.283116D-04	0.244568D-04	0.213147D-03		
19	-0.234242D-03	-0.121039D-04	-0.650402D-04	0.429157D-03	
20	0.116487D-04	0.953206D-05	0.785455D-04	-0.871957D-04	0.314614D-03
21	0.282577D-04	0.189880D-04	0.664316D-05	0.246608D-05	-0.229532D-05
22	0.264558D-04	0.109392D-04	0.946538D-04	-0.415890D-04	0.329019D-04
23	-0.393175D-03	-0.121422D-04	-0.231814D-04	0.161248D-03	-0.399457D-04
24	0.714606D-04	0.153567D-04	0.817287D-04	-0.830508D-04	0.135440D-03
25	0.936689D-04	0.177020D-04	0.476316D-04	-0.364111D-04	0.555579D-04
26	0.116960D-05	-0.134663D-04	-0.645869D-05	0.111502D-04	-0.418628D-05
27	0.368975D-05	-0.600645D-05	-0.726354D-04	0.371854D-04	-0.275109D-04
28	0.274407D-03	-0.469163D-05	0.215350D-04	-0.120274D-03	0.211742D-04
29	-0.242214D-04	-0.106005D-04	-0.911886D-04	0.704053D-04	-0.917999D-04
30	-0.567607D-04	-0.611561D-05	-0.411448D-04	0.474562D-04	-0.152847D-04
31	0.269543D-04	0.101925D-04	0.348443D-04	-0.373294D-04	0.269674D-04
32	0.281971D-03	-0.381607D-04	0.325250D-04	0.105790D-03	-0.613894D-04
33	-0.275582D-04	-0.154317D-04	-0.155357D-04	0.286979D-04	-0.338757D-05
34	0.201249D-04	0.347331D-05	-0.147242D-04	-0.116279D-04	-0.337935D-05
35	-0.180579D-04	-0.268313D-05	0.491535D-05	-0.148297D-04	0.255817D-04
36	-0.579342D-03	0.698562D-04	-0.962908D-04	-0.279317D-04	0.862205D-04
37	-0.411444D-03	0.221635D-06	-0.327245D-04	-0.148214D-03	-0.322928D-04
38	0.252415D-04	-0.309100D-04	-0.708176D-04	0.803043D-04	-0.105137D-03
39	-0.346200D-04	-0.118846D-04	-0.672404D-04	0.612932D-04	-0.620204D-04
40	-0.675309D-04	-0.298943D-04	-0.274181D-04	-0.254906D-04	0.620160D-05
41	0.245605D-04	-0.895612D-05	-0.215643D-06	0.925024D-04	-0.699426D-04
42	-0.991551D-05	0.207752D-06	-0.100170D-04	0.305629D-05	-0.905710D-05
43	0.659306D-04	-0.503483D-05	-0.141142D-04	-0.229007D-04	-0.317306D-04

44	-0.321413D-04	0.574300D-05	0.216535D-04	0.164258D-04	0.221407D-04
45	0.100971D-03	-0.445995D-05	-0.317920D-04	-0.385969D-04	-0.372315D-04
46	-0.245572D-05	-0.459581D-05	-0.753538D-05	0.789220D-05	0.784875D-05
47	-0.558254D-05	0.240414D-05	-0.709411D-05	-0.197067D-04	-0.121101D-04
48	-0.173474D-04	0.869862D-06	0.766741D-06	0.131718D-04	-0.766760D-05
49	-0.157248D-03	-0.581081D-04	-0.893457D-04	0.952740D-05	-0.165081D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.130307D-03				
22	0.546040D-04	0.577988D-03			
23	-0.323133D-04	-0.161389D-03	0.111891D-02		
24	0.235222D-05	0.142374D-03	-0.150396D-03	0.446791D-03	
25	0.237875D-04	0.381498D-03	-0.432557D-03	0.339938D-03	0.222151D-02
26	-0.179954D-04	-0.379830D-05	0.121180D-04	-0.747797D-06	-0.692868D-05
27	-0.239138D-05	-0.145692D-03	0.491196D-04	-0.500912D-04	-0.882178D-04
28	-0.523171D-05	0.398451D-04	-0.211539D-03	0.386959D-04	0.112579D-03
29	0.101321D-05	-0.400725D-04	0.434440D-04	-0.943428D-04	-0.573227D-04
30	0.223017D-05	-0.202355D-03	0.187649D-03	-0.164215D-03	-0.473874D-03
31	0.103163D-04	0.437412D-04	-0.872259D-04	0.497910D-04	0.111732D-03
32	0.189908D-04	-0.124767D-03	-0.197780D-04	-0.843317D-04	-0.444253D-03
33	0.897044D-07	0.483009D-04	0.166153D-05	-0.469919D-05	0.712459D-04
34	0.123931D-04	0.700414D-04	-0.924712D-05	-0.171997D-04	0.595280D-04
35	-0.302857D-05	-0.387872D-04	-0.210737D-04	0.228150D-04	-0.926420D-04
36	0.283750D-04	0.466433D-04	0.307925D-03	0.184224D-05	0.374809D-03
37	-0.523065D-04	0.882620D-04	0.526360D-05	0.101310D-03	0.327644D-03
38	0.166923D-04	0.326380D-04	0.220507D-03	-0.671392D-04	0.107089D-03
39	0.207177D-04	0.397630D-05	0.155283D-03	-0.391959D-04	0.990060D-04
40	-0.100430D-03	0.292509D-04	-0.520655D-03	0.445792D-03	0.752570D-03
41	0.139399D-04	-0.764624D-04	0.431774D-04	-0.782385D-04	-0.988963D-04
42	0.148238D-05	-0.225568D-05	0.618346D-05	-0.790826D-05	-0.714997D-05
43	0.649648D-05	0.112132D-04	0.191977D-04	0.913098D-05	-0.434152D-04
44	0.858820D-06	-0.133797D-04	-0.182168D-04	-0.112070D-04	0.477053D-04
45	-0.790948D-05	0.253409D-04	0.857474D-05	0.245794D-04	-0.703114D-04
46	0.792263D-05	-0.510515D-05	0.153059D-04	0.761844D-05	-0.182327D-04
47	-0.221344D-05	-0.139897D-05	-0.272157D-06	-0.238506D-04	0.483988D-04
48	0.271462D-05	0.497520D-06	0.493667D-05	0.503131D-05	0.117917D-04
49	-0.125594D-03	0.591322D-04	-0.513260D-03	0.531782D-03	0.112590D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
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26	0.109736D-03				
27	0.444819D-04	0.478624D-03			
28	-0.243220D-04	-0.121518D-03	0.892280D-03		
29	0.145311D-04	0.103385D-03	-0.102902D-03	0.381319D-03	
30	0.716316D-05	0.174531D-03	-0.143280D-03	0.161317D-03	0.888510D-03
31	-0.145253D-04	-0.285953D-03	0.196543D-03	-0.199930D-03	-0.364804D-03
32	0.354919D-04	0.369356D-04	-0.231514D-03	-0.608978D-04	0.300855D-03
33	0.175543D-04	-0.195619D-04	-0.399156D-04	0.503850D-04	-0.174250D-04
34	-0.344601D-04	0.322689D-05	-0.174956D-04	-0.123722D-04	-0.620766D-04
35	0.867070D-05	-0.129892D-04	0.489396D-04	-0.563457D-04	0.225389D-04
36	-0.118256D-03	-0.621913D-04	0.123556D-04	0.115846D-03	-0.277683D-03
37	-0.511471D-04	-0.773164D-04	0.387683D-03	0.676802D-04	-0.343035D-03
38	-0.286909D-04	-0.329172D-04	0.387840D-04	0.369993D-04	0.914043D-05
39	-0.612093D-04	-0.188201D-04	0.921928D-04	0.588075D-04	0.230237D-04
40	0.648744D-04	-0.194108D-03	0.514192D-03	0.710156D-04	-0.220815D-03
41	0.702139D-05	0.382869D-04	0.232757D-04	0.331827D-05	0.124474D-03
42	-0.121094D-05	0.232776D-05	0.786334D-06	0.106008D-04	0.760469D-05
43	-0.147910D-04	0.181513D-05	-0.115266D-04	0.168800D-04	-0.785002D-05
44	0.319374D-05	-0.102795D-04	0.544557D-04	-0.188019D-04	0.169367D-05
45	0.122829D-04	0.224789D-04	-0.844726D-04	0.291072D-04	0.777581D-05
46	-0.124265D-05	-0.227087D-05	0.134988D-04	-0.542041D-05	0.977080D-06
47	0.539623D-05	0.822771D-05	0.536139D-05	0.195080D-04	-0.199225D-04
48	-0.874532D-05	0.479482D-05	-0.262892D-04	0.764314D-05	0.490199D-05
49	0.494703D-04	-0.280629D-03	0.754792D-03	0.125396D-03	-0.289850D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.140204D-02				
32	-0.213838D-03	0.483370D-01			
33	-0.923736D-05	0.176352D-03	0.400434D-02		
34	-0.193365D-04	-0.654340D-04	-0.240593D-02	0.463068D-02	
35	0.100095D-03	-0.368353D-03	-0.193318D-03	-0.678247D-04	0.179097D-02
36	0.299132D-03	-0.475564D-01	-0.279411D-03	0.831107D-04	0.394196D-03
37	0.471739D-03	-0.478114D-01	-0.129826D-03	0.118984D-03	0.338591D-03
38	-0.134010D-04	-0.334827D-02	0.126100D-03	0.277131D-03	-0.172166D-03
39	-0.651048D-06	-0.296814D-02	0.458595D-04	0.415317D-03	-0.702182D-04
40	0.357683D-03	-0.113044D-02	-0.691492D-03	-0.518754D-05	-0.393994D-03
41	0.781780D-04	0.505429D-02	-0.110335D-03	-0.769333D-04	-0.231984D-04
42	-0.417295D-05	0.524819D-04	0.448180D-05	0.300031D-04	-0.873097D-05
43	-0.916973D-05	-0.234878D-03	-0.112985D-03	0.829265D-04	0.324528D-04
44	0.246151D-04	0.340567D-03	0.581445D-04	-0.472592D-04	-0.446454D-04

45	-0.342904D-04	-0.502974D-04	-0.349298D-04	0.188656D-04	0.476961D-04
46	0.159859D-04	0.309271D-04	0.111419D-04	-0.203276D-05	0.718629D-04
47	0.355767D-05	0.720308D-04	-0.179021D-04	0.105563D-04	-0.554057D-04
48	0.694379D-05	0.237012D-04	0.254969D-05	0.197588D-04	0.133635D-04
49	0.494808D-03	-0.507667D-02	-0.861311D-03	0.282163D-03	-0.506253D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.674118D-01				
37	0.470324D-01	0.616103D-01			
38	0.444978D-02	0.372480D-02	0.163215D-01		
39	0.329567D-02	0.356500D-02	0.107303D-01	0.142473D-01	
40	-0.123986D-02	0.195909D-02	-0.341131D-02	-0.233524D-02	0.964535D-01
41	-0.519795D-02	-0.512304D-02	-0.101714D-02	-0.926837D-03	0.217751D-02
42	0.392087D-04	-0.105696D-03	-0.441217D-04	0.751081D-05	-0.198519D-03
43	0.259856D-04	0.308554D-03	0.108357D-03	0.922129D-04	-0.576677D-03
44	-0.187136D-03	-0.285090D-03	-0.158545D-03	-0.887462D-04	0.240382D-03
45	-0.188034D-03	-0.528871D-04	0.158752D-03	0.261187D-04	-0.396411D-03
46	0.756375D-05	-0.561770D-04	-0.197132D-03	-0.620739D-04	-0.360311D-03
47	-0.104986D-03	-0.389603D-04	0.458322D-04	-0.421495D-04	0.416016D-03
48	0.812798D-04	-0.652008D-04	-0.198519D-05	-0.327384D-04	-0.174135D-03
49	0.252145D-02	0.651028D-02	0.635077D-02	0.747834D-02	0.123089D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.597898D-02				
42	0.282511D-04	0.103239D-03			
43	-0.801716D-04	-0.384964D-05	0.199578D-02		
44	0.121426D-04	0.778743D-05	-0.115590D-02	0.145431D-02	
45	-0.118624D-03	-0.301357D-05	0.730669D-03	-0.133660D-02	0.248698D-02
46	-0.759843D-05	0.575687D-05	-0.173751D-04	-0.288760D-04	0.630235D-04
47	0.116136D-05	-0.481769D-07	-0.327429D-05	0.123407D-04	-0.537257D-04
48	-0.105135D-04	-0.341942D-05	0.198168D-04	0.110033D-04	-0.733179D-05
49	0.184727D-02	-0.295145D-03	-0.661513D-03	0.138897D-03	-0.350137D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.438177D-03			

47 -0.263774D-03 0.455333D-03  
 48 -0.414860D-04 -0.445767D-05 0.324479D-03  
 49 -0.547861D-03 0.524444D-03 -0.244451D-03 0.167450D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.221	1.000			
3	-0.055	-0.168	1.000		
4	0.050	0.239	-0.173	1.000	
5	-0.042	-0.313	0.168	-0.247	1.000
6	-0.018	0.004	0.012	-0.007	-0.017
7	0.011	0.007	0.030	0.031	-0.027
8	0.046	0.011	-0.015	0.038	-0.014
9	0.006	-0.026	0.013	0.002	0.028
10	0.026	0.010	-0.004	0.044	0.002
11	0.055	0.005	-0.048	0.012	-0.001
12	0.004	0.029	-0.011	0.017	0.003
13	0.000	0.056	-0.002	-0.003	-0.032
14	0.001	0.017	0.009	0.006	0.050
15	-0.033	0.010	-0.012	-0.014	0.021
16	-0.018	-0.015	-0.054	0.061	-0.016
17	0.008	-0.023	0.023	0.002	0.024
18	-0.009	0.035	0.012	-0.003	0.012
19	0.021	0.015	0.009	-0.012	-0.028
20	0.000	0.040	0.001	-0.019	-0.014
21	0.029	-0.041	-0.026	0.027	-0.005
22	0.024	0.020	-0.013	0.046	0.005
23	-0.018	-0.017	0.021	-0.062	-0.021
24	-0.001	0.021	0.001	-0.003	0.019
25	0.075	0.008	-0.043	0.061	-0.001
26	0.000	0.031	-0.014	-0.004	-0.042
27	-0.004	-0.015	0.019	0.022	-0.016
28	0.019	0.053	-0.011	0.044	-0.028
29	-0.004	-0.061	0.049	-0.022	-0.030
30	-0.024	-0.046	0.024	-0.034	0.013
31	-0.023	0.006	-0.007	0.018	0.003
32	0.003	-0.030	-0.016	0.000	0.015
33	0.008	-0.023	-0.029	0.031	0.003
34	0.025	0.018	0.047	0.000	0.014
35	-0.038	0.132	-0.104	0.117	-0.096
36	-0.001	0.025	0.005	0.039	-0.034

37	0.011	0.029	0.012	-0.004	-0.007
38	0.011	0.003	0.005	0.000	0.001
39	0.032	0.010	0.007	0.029	-0.023
40	-0.005	0.001	0.004	-0.012	0.020
41	-0.002	-0.079	0.036	-0.021	0.019
42	0.006	-0.020	0.028	0.004	0.002
43	0.033	0.025	0.025	-0.018	0.003
44	-0.042	-0.027	-0.033	-0.008	-0.022
45	-0.008	-0.015	0.032	0.008	0.019
46	-0.039	0.004	-0.007	-0.016	0.008
47	0.078	-0.026	0.004	0.021	-0.001
48	0.013	0.033	-0.015	0.006	0.009
49	0.002	0.009	0.000	-0.006	0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.179	1.000			
8	-0.002	0.071	1.000		
9	-0.009	-0.202	0.064	1.000	
10	-0.005	0.199	-0.043	0.128	1.000
11	0.002	-0.016	0.020	0.001	-0.009
12	0.016	-0.014	0.009	0.005	0.007
13	0.037	-0.044	0.003	0.023	-0.027
14	0.015	-0.033	-0.028	0.036	0.024
15	-0.019	-0.017	-0.015	0.046	0.027
16	0.017	0.023	0.040	-0.017	-0.030
17	0.012	0.028	0.003	0.003	-0.035
18	0.040	-0.001	-0.005	0.022	-0.027
19	0.019	-0.014	-0.060	-0.003	0.027
20	0.024	-0.019	0.028	0.017	0.003
21	-0.032	-0.026	0.017	0.007	-0.062
22	0.006	-0.025	-0.053	0.014	-0.027
23	0.008	0.001	-0.025	-0.016	0.046
24	0.012	0.016	-0.001	0.010	-0.019
25	0.001	0.027	-0.006	0.013	-0.030
26	-0.013	0.069	0.020	-0.009	0.031
27	-0.035	0.070	-0.017	-0.047	0.046
28	0.025	-0.024	0.025	0.003	-0.037
29	0.007	0.022	-0.004	0.000	0.031
30	0.017	-0.001	0.003	-0.012	0.024
31	-0.009	-0.012	0.034	0.009	-0.045

32	-0.002	-0.041	0.001	-0.070	0.067
33	0.036	-0.024	0.002	0.006	0.004
34	-0.020	0.006	0.027	-0.039	-0.005
35	-0.007	-0.029	-0.021	0.002	0.005
36	0.019	-0.003	0.017	0.049	-0.020
37	0.016	0.024	0.013	0.028	-0.050
38	-0.015	0.006	-0.007	-0.031	0.032
39	-0.011	0.010	0.035	-0.082	0.008
40	0.021	-0.009	0.058	0.037	0.027
41	0.031	0.022	-0.025	0.023	0.007
42	0.045	-0.004	-0.016	0.044	0.029
43	-0.023	-0.019	0.003	0.028	-0.023
44	0.046	0.006	0.024	-0.048	0.002
45	-0.044	0.015	-0.020	0.048	0.032
46	-0.011	0.019	-0.046	-0.041	-0.022
47	-0.034	0.026	0.025	0.029	0.014
48	0.008	-0.048	0.010	-0.004	0.002
49	0.004	-0.010	0.063	0.022	0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.326	1.000			
13	0.077	0.340	1.000		
14	-0.130	-0.163	-0.053	1.000	
15	-0.009	-0.073	-0.159	0.269	1.000
16	0.030	0.044	0.009	-0.115	-0.210
17	0.112	0.269	0.090	-0.187	-0.044
18	0.011	0.139	0.333	-0.043	-0.165
19	-0.007	-0.056	-0.048	0.060	0.258
20	-0.008	0.013	0.058	-0.004	-0.032
21	0.049	0.195	0.047	-0.188	-0.035
22	-0.001	0.072	0.323	-0.048	-0.152
23	-0.010	0.003	-0.018	0.072	0.232
24	0.037	-0.007	0.107	-0.012	-0.027
25	0.067	0.030	0.083	-0.002	-0.032
26	-0.023	-0.234	-0.059	0.069	0.017
27	0.017	-0.048	-0.360	0.015	0.149
28	-0.033	0.014	0.022	-0.001	-0.262
29	0.022	-0.027	-0.070	0.018	0.044
30	-0.002	-0.002	-0.112	0.030	0.076
31	-0.028	0.004	0.085	-0.001	-0.034



32	-0.027	-0.029	0.016	-0.019	-0.015
33	-0.004	-0.046	0.034	0.043	-0.005
34	0.006	0.041	-0.006	-0.080	0.023
35	-0.028	-0.042	-0.044	0.027	-0.001
36	0.032	0.036	0.008	0.028	0.016
37	0.028	0.047	0.004	0.006	0.002
38	0.009	0.013	-0.006	-0.022	-0.013
39	0.016	0.022	-0.011	-0.023	-0.010
40	-0.003	0.006	-0.011	0.011	-0.011
41	0.021	-0.009	0.004	-0.001	0.047
42	-0.017	-0.031	-0.036	0.000	-0.047
43	0.019	0.016	0.048	-0.015	0.019
44	-0.050	-0.027	-0.023	0.032	-0.007
45	0.034	-0.006	-0.018	-0.022	0.008
46	-0.025	-0.026	0.006	-0.031	0.029
47	-0.040	-0.003	-0.021	0.032	-0.028
48	0.058	0.033	-0.032	0.032	0.008
49	0.001	0.011	-0.011	0.007	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.034	1.000			
18	0.040	0.230	1.000		
19	-0.233	-0.080	-0.215	1.000	
20	0.014	0.074	0.303	-0.237	1.000
21	0.051	0.228	0.040	0.010	-0.011
22	0.023	0.062	0.270	-0.084	0.077
23	-0.242	-0.050	-0.047	0.233	-0.067
24	0.070	0.100	0.265	-0.190	0.361
25	0.041	0.052	0.069	-0.037	0.066
26	0.002	-0.177	-0.042	0.051	-0.023
27	0.003	-0.038	-0.227	0.082	-0.071
28	0.189	-0.022	0.049	-0.194	0.040
29	-0.026	-0.075	-0.320	0.174	-0.265
30	-0.039	-0.028	-0.095	0.077	-0.029
31	0.015	0.037	0.064	-0.048	0.041
32	0.026	-0.024	0.010	0.023	-0.016
33	-0.009	-0.033	-0.017	0.022	-0.003
34	0.006	0.007	-0.015	-0.008	-0.003
35	-0.009	-0.009	0.008	-0.017	0.034
36	-0.046	0.037	-0.025	-0.005	0.019

37	-0.034	0.000	-0.009	-0.029	-0.007
38	0.004	-0.033	-0.038	0.030	-0.046
39	-0.006	-0.014	-0.039	0.025	-0.029
40	-0.004	-0.013	-0.006	-0.004	0.001
41	0.007	-0.016	0.000	0.058	-0.051
42	-0.020	0.003	-0.068	0.015	-0.050
43	0.030	-0.015	-0.022	-0.025	-0.040
44	-0.017	0.021	0.039	0.021	0.033
45	0.042	-0.012	-0.044	-0.037	-0.042
46	-0.002	-0.030	-0.025	0.018	0.021
47	-0.005	0.015	-0.023	-0.045	-0.032
48	-0.020	0.007	0.003	0.035	-0.024
49	-0.008	-0.019	-0.015	0.001	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	1.000				
22	0.199	1.000			
23	-0.085	-0.201	1.000		
24	0.010	0.280	-0.213	1.000	
25	0.044	0.337	-0.274	0.341	1.000
26	-0.150	-0.015	0.035	-0.003	-0.014
27	-0.010	-0.277	0.067	-0.108	-0.086
28	-0.015	0.055	-0.212	0.061	0.080
29	0.005	-0.085	0.067	-0.229	-0.062
30	0.007	-0.282	0.188	-0.261	-0.337
31	0.024	0.049	-0.070	0.063	0.063
32	0.008	-0.024	-0.003	-0.018	-0.043
33	0.000	0.032	0.001	-0.004	0.024
34	0.016	0.043	-0.004	-0.012	0.019
35	-0.006	-0.038	-0.015	0.026	-0.046
36	0.010	0.007	0.035	0.000	0.031
37	-0.018	0.015	0.001	0.019	0.028
38	0.011	0.011	0.052	-0.025	0.018
39	0.015	0.001	0.039	-0.016	0.018
40	-0.028	0.004	-0.050	0.068	0.051
41	0.016	-0.041	0.017	-0.048	-0.027
42	0.013	-0.009	0.018	-0.037	-0.015
43	0.013	0.010	0.013	0.010	-0.021
44	0.002	-0.015	-0.014	-0.014	0.027
45	-0.014	0.021	0.005	0.023	-0.030
46	0.033	-0.010	0.022	0.017	-0.018

47	-0.009	-0.003	0.000	-0.053	0.048
48	0.013	0.001	0.008	0.013	0.014
49	-0.027	0.006	-0.037	0.061	0.058

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.194	1.000			
28	-0.078	-0.186	1.000		
29	0.071	0.242	-0.176	1.000	
30	0.023	0.268	-0.161	0.277	1.000
31	-0.037	-0.349	0.176	-0.273	-0.327
32	0.015	0.008	-0.035	-0.014	0.046
33	0.026	-0.014	-0.021	0.041	-0.009
34	-0.048	0.002	-0.009	-0.009	-0.031
35	0.020	-0.014	0.039	-0.068	0.018
36	-0.043	-0.011	0.002	0.023	-0.036
37	-0.020	-0.014	0.052	0.014	-0.046
38	-0.021	-0.012	0.010	0.015	0.002
39	-0.049	-0.007	0.026	0.025	0.006
40	0.020	-0.029	0.055	0.012	-0.024
41	0.009	0.023	0.010	0.002	0.054
42	-0.011	0.010	0.003	0.053	0.025
43	-0.032	0.002	-0.009	0.019	-0.006
44	0.008	-0.012	0.048	-0.025	0.001
45	0.024	0.021	-0.057	0.030	0.005
46	-0.006	-0.005	0.022	-0.013	0.002
47	0.024	0.018	0.008	0.047	-0.031
48	-0.046	0.012	-0.049	0.022	0.009
49	0.012	-0.031	0.062	0.016	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.026	1.000			
33	-0.004	0.013	1.000		
34	-0.008	-0.004	-0.559	1.000	
35	0.063	-0.040	-0.072	-0.024	1.000
36	0.031	-0.833	-0.017	0.005	0.036
37	0.051	-0.876	-0.008	0.007	0.032

38	-0.003	-0.119	0.016	0.032	-0.032
39	0.000	-0.113	0.006	0.051	-0.014
40	0.031	-0.017	-0.035	0.000	-0.030
41	0.027	0.297	-0.023	-0.015	-0.007
42	-0.011	0.023	0.007	0.043	-0.020
43	-0.005	-0.024	-0.040	0.027	0.017
44	0.017	0.041	0.024	-0.018	-0.028
45	-0.018	-0.005	-0.011	0.006	0.023
46	0.020	0.007	0.008	-0.001	0.081
47	0.004	0.015	-0.013	0.007	-0.061
48	0.010	0.006	0.002	0.016	0.018
49	0.032	-0.056	-0.033	0.010	-0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.730	1.000			
38	0.134	0.117	1.000		
39	0.106	0.120	0.704	1.000	
40	-0.015	0.025	-0.086	-0.063	1.000
41	-0.259	-0.267	-0.103	-0.100	0.091
42	0.015	-0.042	-0.034	0.006	-0.063
43	0.002	0.028	0.019	0.017	-0.042
44	-0.019	-0.030	-0.033	-0.019	0.020
45	-0.015	-0.004	0.025	0.004	-0.026
46	0.001	-0.011	-0.074	-0.025	-0.055
47	-0.019	-0.007	0.017	-0.017	0.063
48	0.017	-0.015	-0.001	-0.015	-0.031
49	0.024	0.064	0.121	0.153	0.969

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.036	1.000			
43	-0.023	-0.008	1.000		
44	0.004	0.020	-0.678	1.000	
45	-0.031	-0.006	0.328	-0.703	1.000
46	-0.005	0.027	-0.019	-0.036	0.060
47	0.001	0.000	-0.003	0.015	-0.050
48	-0.008	-0.019	0.025	0.016	-0.008

49	0.058	-0.071	-0.036	0.009	-0.017
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# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.591	1.000		
48	-0.110	-0.012	1.000	
49	-0.064	0.060	-0.033	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.035	36
200	1.019	4
300	1.025	40
400	1.013	49
500	1.005	42
600	1.005	42
700	1.003	2
800	1.002	40
900	1.003	42
1000	1.002	42

This is the interaction between latent profile categories and time pressure on improving physical health

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

# PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	0.971	0.971	0.971	0.971	0.971
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.966
PRESS15	0.966	0.966	0.966	0.966	0.966
DUTIES15	0.966	0.966	0.966	0.966	0.966

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.963			
BULLY15	0.963	0.966		
PRESS15	0.963	0.966	0.966	
DUTIES15	0.963	0.966	0.966	0.966

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

## UNIVARIATE SAMPLE STATISTICS

### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	Percentiles 20%/60%	Percentiles 40%/80%	Median
--------------------------	-------------------	-----------------------	---------------------	-------------------	------------------------	------------------------	--------

CLU2		0.316	0.793	0.000	68.42%	0.000	0.000	0.000
	57.000	0.216	-1.372	1.000	31.58%	0.000	1.000	
CLU3		0.439	0.247	0.000	56.14%	0.000	0.000	0.000
	57.000	0.246	-1.939	1.000	43.86%	1.000	1.000	
PHY15		0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
	1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15		0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
	1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15		0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
	1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15		0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
	1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15		2.756	0.183	1.000	14.06%	2.000	2.000	3.000
	1373.000	1.207	-0.514	5.000	7.21%	3.000	4.000	
DUTIES15		0.000	-0.896	-2.873	3.06%	-0.873	0.127	0.127
	1373.000	0.975	0.587	1.127	27.75%	0.127	1.127	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.823	0.117	0.000	0.603	1.061	*
CHOICE15	-0.047	0.032	0.074	-0.109	0.018	
DUTIES15	0.036	0.039	0.161	-0.042	0.116	
BULLY15	0.048	0.055	0.192	-0.059	0.156	
KES15	0.168	0.054	0.001	0.064	0.278	*



KES15	WITH					
PHY15		0.071	0.009	0.000	0.054	0.088 *
CHOICE15		-0.135	0.024	0.000	-0.184	-0.091 *
BULLY15		0.127	0.015	0.000	0.098	0.157 *
PRESS15		0.210	0.024	0.000	0.166	0.260 *
DUTIES15		-0.207	0.022	0.000	-0.250	-0.163 *
PHY15	WITH					
CHOICE15		-0.033	0.012	0.002	-0.057	-0.010 *
BULLY15		0.013	0.007	0.047	-0.002	0.027
PRESS15		0.017	0.011	0.064	-0.004	0.040
DUTIES15		-0.009	0.010	0.202	-0.031	0.011
CHOICE15	WITH					
BULLY15		-0.134	0.021	0.000	-0.175	-0.095 *
PRESS15		-0.172	0.034	0.000	-0.241	-0.107 *
DUTIES15		0.160	0.030	0.000	0.104	0.221 *
BULLY15	WITH					
PRESS15		0.177	0.021	0.000	0.135	0.222 *
DUTIES15		-0.140	0.020	0.000	-0.180	-0.103 *
PRESS15	WITH					
DUTIES15		-0.245	0.030	0.000	-0.302	-0.186 *
Means						
PHY15		0.000	0.010	0.499	-0.020	0.020
KES15		0.001	0.021	0.483	-0.041	0.043
CHOICE15		-0.001	0.030	0.488	-0.057	0.057
BULLY15		0.001	0.019	0.477	-0.036	0.038
DUTIES15		0.000	0.027	0.500	-0.051	0.052
Variances						
PHY15		0.154	0.006	0.000	0.144	0.166 *
KES15		0.613	0.024	0.000	0.569	0.665 *
CHOICE15		1.251	0.049	0.000	1.161	1.352 *
BULLY15		0.475	0.018	0.000	0.441	0.513 *
PRESS15		1.177	0.046	0.000	1.091	1.272 *
DUTIES15		0.975	0.037	0.000	0.907	1.051 *

Between Level

S1 ON

CLU2	-0.049	0.120	0.352	-0.283	0.187	
CLU3	-0.039	0.114	0.360	-0.266	0.179	
PHYCAT16 ON						
CLU2	-0.139	0.133	0.147	-0.402	0.123	
CLU3	-0.040	0.131	0.386	-0.293	0.231	
PRESS15	0.036	0.245	0.452	-0.442	0.496	
CLU2 WITH						
CLU3	-0.137	0.038	0.000	-0.227	-0.076	*
PRESS15	-0.009	0.026	0.358	-0.061	0.042	
CLU3 WITH						
PRESS15	0.031	0.027	0.108	-0.020	0.085	
Means						
CLU2	0.318	0.063	0.000	0.193	0.441	*
CLU3	0.438	0.068	0.000	0.300	0.567	*
PRESS15	2.707	0.054	0.000	2.598	2.816	*
Intercepts						
S1	0.016	0.097	0.431	-0.179	0.207	
Thresholds						
PHYCAT16\$1	-0.382	0.641	0.276	-1.636	0.854	
Variances						
CLU2	0.230	0.044	0.000	0.166	0.336	*
CLU3	0.264	0.049	0.000	0.184	0.380	*
PRESS15	0.083	0.024	0.000	0.049	0.139	*
Residual Variances						
PHYCAT16	0.008	0.011	0.000	0.000	0.040	*
S1	0.011	0.013	0.000	0.001	0.048	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Posterior	One-Tailed	95% C.I.		
Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%	Significance

Within-Level Standardized Estimates Averaged Over Clusters

S1   PHYCAT16 ON						
PRESS15	-0.015	0.041	0.362	-0.097	0.065	
PHYCAT16 ON						
PHY15	0.298	0.038	0.000	0.225	0.372	*
CHOICE15	-0.048	0.034	0.075	-0.116	0.019	
DUTIES15	0.035	0.035	0.161	-0.035	0.107	
BULLY15	0.030	0.035	0.195	-0.038	0.101	
KES15	0.120	0.038	0.000	0.045	0.196	*
KES15 WITH						
PHY15	0.230	0.026	0.000	0.179	0.278	*
CHOICE15	-0.154	0.026	0.000	-0.206	-0.105	*
BULLY15	0.236	0.025	0.000	0.185	0.285	*
PRESS15	0.247	0.025	0.000	0.196	0.298	*
DUTIES15	-0.267	0.025	0.000	-0.316	-0.216	*
PHY15 WITH						
CHOICE15	-0.075	0.027	0.003	-0.126	-0.022	*
BULLY15	0.046	0.027	0.049	-0.008	0.099	
PRESS15	0.039	0.028	0.079	-0.014	0.094	
DUTIES15	-0.023	0.027	0.199	-0.077	0.028	
CHOICE15 WITH						
BULLY15	-0.173	0.026	0.000	-0.223	-0.124	*
PRESS15	-0.142	0.027	0.000	-0.195	-0.089	*
DUTIES15	0.145	0.026	0.000	0.094	0.197	*
BULLY15 WITH						
PRESS15	0.235	0.026	0.000	0.186	0.286	*
DUTIES15	-0.205	0.027	0.000	-0.256	-0.154	*
PRESS15 WITH						
DUTIES15	-0.229	0.026	0.000	-0.279	-0.178	*
Means						
PHY15	0.000	0.027	0.494	-0.051	0.051	
KES15	0.000	0.027	0.498	-0.051	0.055	
CHOICE15	0.000	0.027	0.493	-0.052	0.053	
BULLY15	0.001	0.027	0.491	-0.052	0.054	
DUTIES15	-0.001	0.027	0.492	-0.053	0.052	

Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1	ON					
CLU2		-0.206	0.450	0.352	-0.941	0.767
CLU3		-0.164	0.457	0.360	-0.917	0.806
PHYCAT16	ON					
CLU2		-0.493	0.412	0.147	-1.091	0.475
CLU3		-0.155	0.452	0.386	-0.948	0.777
PRESS15		0.071	0.453	0.452	-0.765	0.842
CLU2	WITH					
CLU3		-0.562	0.091	0.000	-0.707	-0.354 *
PRESS15		-0.064	0.177	0.358	-0.395	0.299
CLU3	WITH					
PRESS15		0.210	0.167	0.108	-0.132	0.507
Means						
CLU2		0.662	0.145	0.000	0.377	0.944 *
CLU3		0.856	0.154	0.000	0.565	1.172 *
PRESS15		9.403	1.312	0.000	7.187	12.355 *
Intercepts						
S1		0.144	0.808	0.431	-1.555	1.584
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.444	0.256	0.000	0.040	0.920 *
S1		0.767	0.223	0.000	0.196	0.991 *

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.149	0.027	0.000	0.099	0.205

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.556	0.256	0.000	0.080	0.960

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.233	0.223	0.000	0.009	0.804

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU				
PHYCAT16				
<div><div></div><div>0</div></div>				
NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>
NU				
PRESS15	DUTIES15			
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>			

	LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	0	0	0	0	0	
PHY15	0	0	0	0	0	
KES15	0	0	0	0	0	
CHOICE15	0	0	0	0	0	
BULLY15	0	0	0	0	0	
PRESS15	0	0	0	0	0	
DUTIES15	0	0	0	0	0	

	LAMBDA		
	PRESS15	DUTIES15	
PHYCAT16	0	0	
PHY15	0	0	
KES15	0	0	
CHOICE15	0	0	
BULLY15	0	0	
PRESS15	0	0	
DUTIES15	0	0	

	THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
PHYCAT16	0					
PHY15	0	0				
KES15	0	0	0			
CHOICE15	0	0	0	0		
BULLY15	0	0	0	0	0	
PRESS15	0	0	0	0	0	
DUTIES15	0	0	0	0	0	

	THETA		
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA	
PRESS15	DUTIES15
<u>0</u>	<u>5</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	
PHYCAT16	0	0	0	0	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA	
PRESS15	DUTIES15
<u>0</u>	<u>10</u>
PHYCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>11</u>	<u>13</u>	<u>16</u>		
PHYCAT16	0	12			
PHY15	11	13			
KES15	12	15			
CHOICE15	14				

BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI	
PRESS15	DUTIES15
-----	-----
PRESS15	25
DUTIES15	30
	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
-----
49

NU	PHYCAT16	CLU2	CLU3	PRESS15
	-----	-----	-----	-----
	0	0	0	0

LAMBDA	S1	PHYCAT16	CLU2	CLU3	PRESS15
	-----	-----	-----	-----	-----
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
PRESS15	0	0	0	0	0

THETA	PHYCAT16	CLU2	CLU3	PRESS15
	-----	-----	-----	-----
PHYCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
PRESS15	0	0	0	0



ALPHA					
S1		PHYCAT16	CLU2	CLU3	PRESS15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>	<u>35</u>

	BETA				
	S1	PHYCAT16	CLU2	CLU3	PRESS15
	<u>0</u>	<u>0</u>	<u>36</u>	<u>37</u>	<u>0</u>
S1	0	0	38	39	40
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
PRESS15	0	0	0	0	0

	PSI				
	S1	PHYCAT16	CLU2	CLU3	PRESS15
	<u>41</u>	<u></u>	<u></u>	<u></u>	<u></u>
S1	0	42			
PHYCAT16	0	0	43		
CLU2	0	0	44	45	
CLU3	0	0	46	47	48
PRESS15	0	0			

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15

<u>0.000</u>	<u>0.000</u>
--------------	--------------

LAMBDA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	

DUTIES15	0.000	0.000
----------	-------	-------

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.077		

KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.604
DUTIES15	0.000
	0.488

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/>
-0.311

NU				
PHYCAT16	CLU2	CLU3	PRESS15	
<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	

LAMBDA				
S1	PHYCAT16	CLU2	CLU3	PRESS15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000
CLU3	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000

THETA			
PHYCAT16	CLU2	CLU3	PRESS15
<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000		
CLU2	0.000	0.000	
CLU3	0.000	0.000	

PRESS15	0.000	0.000	0.000	0.000	
ALPHA					
S1		PHYCAT16	CLU2	CLU3	PRESS15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.375	<hr/> 0.482	<hr/> 2.756
BETA					
S1		PHYCAT16	CLU2	CLU3	PRESS15
S1	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
PSI					
S1		PHYCAT16	CLU2	CLU3	PRESS15
S1	<hr/> 1.000	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.117		
CLU3	0.000	0.000	0.000	0.125	
PRESS15	0.000	0.000	0.000	0.000	0.604

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity

Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1

2

3

4

5

1	0.109431D-03				
2	0.487744D-04	0.457893D-03			
3	-0.156528D-04	-0.107004D-03	0.888556D-03		
4	0.863205D-05	0.877477D-04	-0.113215D-03	0.347877D-03	
5	-0.953317D-05	-0.178458D-03	0.132806D-03	-0.111084D-03	0.711134D-03
6	-0.187332D-04	0.276213D-04	0.328126D-04	0.239726D-04	-0.612426D-04
7	0.465962D-05	0.810846D-05	0.536533D-04	0.353610D-04	-0.378757D-04
8	0.141059D-04	0.682799D-05	-0.155110D-04	0.271300D-04	-0.145868D-04
9	-0.169179D-04	-0.192271D-04	-0.421131D-04	-0.152639D-04	0.779700D-04
10	0.111064D-04	0.233686D-05	-0.790117D-06	0.226260D-04	0.115125D-04
11	0.344427D-05	0.686703D-06	-0.822123D-05	0.884242D-06	-0.337388D-06
12	0.382739D-06	0.570167D-05	-0.321532D-05	0.355848D-05	0.463443D-06
13	0.363735D-06	0.284905D-04	-0.260077D-05	-0.157645D-05	-0.219592D-04
14	0.541920D-07	0.343962D-05	0.390049D-05	-0.131850D-05	0.167737D-04
15	-0.841588D-05	0.444974D-05	-0.741359D-05	-0.564140D-05	0.133438D-04
16	-0.897460D-05	-0.136616D-04	-0.796027D-04	0.560565D-04	-0.206406D-04
17	0.443133D-06	-0.372241D-05	0.427617D-05	0.152740D-05	0.354140D-05
18	-0.314159D-06	0.105874D-04	0.510894D-05	0.169517D-05	0.235612D-05
19	0.228537D-05	0.663347D-05	0.714027D-05	-0.136137D-04	-0.104689D-04
20	0.278928D-05	0.155881D-04	0.127272D-05	-0.192641D-05	-0.838819D-05
21	0.336869D-05	-0.956587D-05	-0.866584D-05	0.654370D-05	-0.968537D-06
22	0.487531D-05	0.876858D-05	-0.109889D-04	0.157094D-04	0.789127D-05
23	-0.327105D-05	-0.133013D-04	0.237039D-04	-0.285266D-04	-0.219135D-04
24	0.371754D-06	0.638650D-05	-0.180111D-05	-0.524809D-05	0.104058D-04
25	0.311097D-04	0.954811D-05	-0.618503D-04	0.436381D-04	0.341114D-05
26	0.779229D-09	0.705805D-05	-0.444972D-05	-0.219554D-05	-0.117751D-04
27	-0.167976D-05	-0.751878D-05	0.127323D-04	0.969581D-05	-0.726532D-05
28	0.605647D-05	0.324680D-04	-0.887880D-05	0.188634D-04	-0.179098D-04
29	-0.251450D-05	-0.266567D-04	0.281700D-04	-0.807126D-05	-0.183258D-04
30	-0.483005D-05	-0.302042D-04	0.266528D-04	-0.229937D-04	0.156190D-04
31	-0.889412D-05	0.539349D-05	-0.840669D-05	0.168823D-04	-0.412523D-06
32	0.154707D-04	0.168421D-04	-0.652451D-04	0.521408D-04	-0.362275D-05
33	0.578100D-05	-0.266879D-04	-0.579870D-04	0.477941D-04	0.280564D-05
34	0.169499D-04	0.181652D-04	0.989667D-04	-0.188678D-04	0.318376D-04
35	-0.144107D-04	0.194726D-03	-0.193503D-03	0.148056D-03	-0.199576D-03
36	0.543624D-06	-0.486141D-04	0.556730D-04	0.235608D-04	-0.302066D-04
37	0.188670D-05	-0.380632D-05	0.715344D-04	-0.812228D-04	0.245537D-04
38	0.373228D-04	0.354588D-04	0.598441D-04	0.369177D-04	0.164666D-04
39	0.492699D-04	0.477714D-05	0.111263D-03	0.266392D-04	-0.170894D-04
40	-0.506679D-05	0.672558D-04	0.736366D-04	0.102243D-04	0.189444D-04
41	0.343966D-06	-0.121086D-04	0.986905D-05	0.738209D-06	0.110746D-04
42	-0.682124D-06	0.137383D-05	0.681982D-05	-0.126187D-05	0.322159D-05
43	0.163943D-04	0.287434D-04	0.342417D-04	-0.165446D-04	0.594286D-05

44	-0.185186D-04	-0.274231D-04	-0.368196D-04	-0.126681D-04	-0.148935D-04
45	0.508529D-05	-0.880196D-05	0.435853D-04	0.242856D-04	0.138933D-04
46	-0.538943D-05	0.753568D-05	-0.107006D-04	-0.634876D-05	-0.321436D-06
47	0.158843D-04	-0.166039D-04	0.297910D-05	0.377811D-05	0.614606D-05
48	0.775552D-05	0.600985D-05	-0.279069D-04	0.196731D-05	-0.255059D-05
49	0.339775D-04	0.247797D-03	0.219007D-03	0.827014D-04	-0.560240D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.136553D-01				
7	-0.110244D-02	0.291597D-02			
8	-0.309516D-04	0.130196D-03	0.103773D-02		
9	-0.318244D-03	-0.353651D-03	0.164332D-03	0.297584D-02	
10	0.365278D-04	0.423248D-03	-0.673059D-04	0.187029D-03	0.150155D-02
11	-0.600875D-06	-0.561252D-05	0.370934D-05	0.534835D-05	-0.343510D-05
12	0.128970D-04	-0.456569D-05	0.232946D-05	0.183774D-04	0.278615D-05
13	0.113235D-03	-0.543619D-04	-0.165653D-05	0.192311D-04	-0.232291D-04
14	0.211217D-04	-0.210985D-04	-0.137086D-04	0.770775D-05	0.826914D-05
15	-0.621817D-04	-0.218316D-04	-0.105375D-04	0.268143D-04	0.147844D-04
16	0.114658D-03	0.520677D-04	0.647853D-04	-0.950762D-05	-0.412616D-04
17	0.100707D-04	0.112270D-04	0.164157D-05	0.447930D-05	-0.829900D-05
18	0.685044D-04	0.617047D-05	0.682491D-06	0.184663D-04	-0.126363D-04
19	0.448434D-04	-0.213420D-04	-0.448431D-04	0.231235D-04	0.199968D-04
20	0.575850D-04	-0.219242D-04	0.154808D-04	0.119381D-05	-0.226034D-05
21	-0.421853D-04	-0.160410D-04	0.646167D-05	0.578152D-05	-0.263605D-04
22	0.345667D-04	-0.478110D-04	-0.440854D-04	0.163661D-04	-0.324240D-04
23	0.270512D-04	0.119317D-04	-0.267597D-04	-0.458560D-04	0.668192D-04
24	0.443331D-04	0.228817D-04	-0.328066D-05	-0.105959D-04	-0.157871D-04
25	0.313844D-04	0.693633D-04	-0.120691D-04	0.396372D-04	-0.662508D-04
26	-0.920315D-05	0.370431D-04	0.726401D-05	-0.141504D-04	0.114731D-04
27	-0.779215D-04	0.815311D-04	-0.787220D-05	-0.677659D-04	0.355631D-04
28	0.103276D-03	-0.363202D-04	0.223127D-04	0.100570D-04	-0.405653D-04
29	0.277943D-04	0.283997D-04	-0.864873D-05	-0.230240D-04	0.199675D-04
30	0.369751D-04	0.188070D-05	0.843428D-05	-0.647224D-04	0.324987D-04
31	-0.484652D-04	-0.320391D-04	0.430111D-04	0.964855D-04	-0.600291D-04
32	0.277238D-03	-0.234979D-03	-0.714900D-04	-0.316695D-03	0.416461D-03
33	0.309335D-03	-0.572853D-04	-0.192349D-05	-0.308356D-04	-0.105958D-04
34	-0.142937D-03	0.387427D-05	0.604820D-04	-0.105319D-03	0.241855D-05
35	-0.748973D-04	-0.361452D-04	-0.334198D-04	0.284617D-05	-0.176026D-04
36	-0.117909D-03	-0.198713D-03	0.132789D-03	0.130609D-03	-0.226085D-03
37	0.240422D-05	0.875619D-05	0.147148D-03	-0.545163D-05	-0.285385D-03
38	-0.647161D-03	0.147625D-04	-0.165484D-04	-0.398603D-04	0.245491D-03



39	-0.489505D-03	0.344150D-04	0.529534D-04	-0.241402D-03	0.179863D-03
40	0.116212D-03	0.185803D-03	0.245609D-03	0.187606D-03	-0.197218D-04
41	0.181247D-04	0.248518D-04	-0.683256D-05	0.518568D-04	0.186918D-04
42	0.561654D-04	0.697468D-05	-0.787201D-05	-0.344253D-04	0.712694D-05
43	-0.128313D-03	-0.350509D-04	0.114581D-04	-0.557035D-05	-0.444433D-04
44	0.203995D-03	0.166894D-04	0.163001D-04	-0.490730D-04	-0.433356D-05
45	-0.263819D-03	0.399151D-04	-0.106241D-04	0.965785D-04	0.626357D-04
46	-0.539260D-04	0.338198D-04	-0.280727D-04	-0.621784D-05	-0.244003D-04
47	-0.111310D-03	0.242512D-04	0.844399D-05	-0.307717D-05	0.227830D-04
48	0.257341D-05	-0.261822D-04	0.183717D-04	0.348286D-05	0.250951D-04
49	-0.939022D-03	0.495281D-03	0.725431D-03	0.362038D-03	0.111561D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.344080D-04				
12	0.163878D-04	0.736701D-04			
13	0.107871D-04	0.695792D-04	0.568227D-03		
14	-0.910883D-05	-0.167085D-04	-0.149063D-04	0.140362D-03	
15	-0.130390D-05	-0.152079D-04	-0.908460D-04	0.763670D-04	0.572932D-03
16	0.864547D-05	0.191409D-04	0.116035D-04	-0.658127D-04	-0.246697D-03
17	0.459982D-05	0.165035D-04	0.149401D-04	-0.174408D-04	-0.703324D-05
18	0.122375D-05	0.172928D-04	0.116771D-03	-0.721234D-05	-0.623716D-04
19	-0.142804D-05	-0.100096D-04	-0.244565D-04	0.166901D-04	0.130658D-03
20	-0.212311D-06	0.134228D-05	0.251138D-04	-0.237561D-06	-0.158206D-04
21	0.386355D-05	0.199315D-04	0.131895D-04	-0.245226D-04	-0.987505D-05
22	-0.332423D-06	0.161315D-04	0.187530D-03	-0.142913D-04	-0.821229D-04
23	-0.898322D-06	0.117212D-05	-0.154984D-04	0.294771D-04	0.184357D-03
24	0.279400D-05	-0.188907D-05	0.527697D-04	-0.208828D-05	-0.778389D-05
25	0.187643D-04	0.127562D-04	0.985357D-04	-0.622037D-05	-0.389865D-04
26	-0.140960D-05	-0.210176D-04	-0.145382D-04	0.860771D-05	0.440225D-05
27	0.219694D-05	-0.890750D-05	-0.188047D-03	0.379795D-05	0.779640D-04
28	-0.581058D-05	0.378265D-05	0.158003D-04	-0.340373D-07	-0.186646D-03
29	0.201727D-05	-0.496118D-05	-0.344146D-04	0.382886D-05	0.243591D-04
30	0.260819D-09	-0.506388D-07	-0.788457D-04	0.113523D-04	0.476650D-04
31	-0.630426D-05	0.118165D-05	0.762846D-04	-0.731641D-06	-0.308767D-04
32	-0.166353D-04	-0.243899D-04	0.327530D-04	-0.163805D-04	-0.827433D-04
33	-0.152107D-05	-0.248468D-04	0.526015D-04	0.328238D-04	-0.653056D-05
34	0.300418D-05	0.232259D-04	-0.112208D-04	-0.622941D-04	0.397552D-04
35	-0.119692D-05	-0.170329D-04	-0.565029D-04	-0.521733D-05	-0.170540D-04
36	0.200865D-04	0.322224D-04	0.192401D-04	0.491473D-04	0.117133D-03
37	0.192732D-04	0.406440D-04	0.297520D-04	0.936074D-05	0.730346D-04
38	0.786189D-05	0.181907D-04	-0.306037D-04	-0.515233D-04	-0.550368D-04

39	0.125196D-04	0.274652D-04	-0.442271D-04	-0.485343D-04	-0.235696D-04
40	0.280089D-04	0.446238D-04	0.136764D-03	0.193848D-04	-0.148670D-05
41	0.312358D-05	-0.135467D-05	-0.455178D-05	-0.343161D-05	0.124009D-04
42	-0.633224D-06	-0.270495D-05	-0.719685D-05	-0.189226D-06	-0.119598D-04
43	0.520553D-05	0.564481D-05	0.523220D-04	-0.750085D-05	0.175654D-04
44	-0.102104D-04	-0.891124D-05	-0.211098D-04	0.125029D-04	0.435008D-05
45	0.377556D-05	-0.423616D-05	-0.257947D-04	-0.432953D-05	0.766165D-06
46	-0.321264D-05	-0.712332D-05	0.511726D-05	-0.101885D-04	0.114760D-04
47	-0.297309D-05	0.603131D-05	-0.226507D-04	0.832644D-05	0.293334D-05
48	0.490794D-05	0.406523D-05	-0.198019D-04	0.117771D-04	0.185737D-04
49	0.876018D-04	0.144276D-03	0.352805D-03	0.181391D-04	-0.120208D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.236266D-02				
17	0.121313D-04	0.536333D-04			
18	0.330374D-04	0.239054D-04	0.216797D-03		
19	-0.257741D-03	-0.109874D-04	-0.667789D-04	0.427517D-03	
20	0.142796D-04	0.963807D-05	0.775421D-04	-0.893354D-04	0.326308D-03
21	0.276666D-04	0.192933D-04	0.682787D-05	-0.260917D-05	-0.608818D-06
22	0.215320D-04	0.107859D-04	0.945445D-04	-0.418706D-04	0.359891D-04
23	-0.376115D-03	-0.111180D-04	-0.234357D-04	0.163833D-03	-0.424493D-04
24	0.738231D-04	0.155327D-04	0.827060D-04	-0.748291D-04	0.134898D-03
25	0.829759D-04	0.121753D-04	0.486153D-04	-0.414571D-04	0.657142D-04
26	0.879504D-06	-0.138868D-04	-0.623190D-05	0.119443D-04	-0.485693D-05
27	0.252269D-05	-0.601185D-05	-0.744846D-04	0.403404D-04	-0.296261D-04
28	0.274758D-03	-0.624339D-05	0.250343D-04	-0.123522D-03	0.190283D-04
29	-0.324081D-04	-0.105897D-04	-0.902024D-04	0.755440D-04	-0.958876D-04
30	-0.508885D-04	-0.542589D-05	-0.438056D-04	0.382176D-04	-0.119913D-04
31	0.281294D-04	0.911128D-05	0.362815D-04	-0.336242D-04	0.268506D-04
32	0.124897D-03	-0.262197D-04	0.280710D-05	0.370866D-04	-0.140459D-04
33	-0.297438D-04	-0.178753D-04	-0.118495D-04	0.120973D-04	0.902115D-05
34	0.158670D-04	0.570904D-05	-0.166653D-04	-0.596546D-05	-0.146785D-04
35	0.278268D-04	-0.241709D-05	-0.596764D-05	0.159355D-04	0.219046D-04
36	-0.262975D-03	0.319764D-04	-0.469343D-04	-0.529874D-04	0.616034D-04
37	-0.217237D-03	0.987005D-05	-0.110951D-04	-0.577280D-04	-0.432789D-04
38	0.111109D-03	-0.142098D-04	-0.475630D-04	0.485451D-04	-0.114667D-03
39	0.493159D-04	0.102680D-04	-0.526727D-04	0.384470D-04	-0.858235D-04
40	0.938178D-04	-0.728955D-04	0.924982D-04	-0.159261D-03	0.582206D-04
41	-0.123357D-04	0.104128D-05	-0.574523D-05	0.201539D-04	-0.916530D-05
42	-0.421862D-05	0.189185D-05	-0.803952D-05	0.141730D-05	-0.878175D-05
43	0.656772D-04	-0.571486D-05	-0.120947D-04	-0.221595D-04	-0.303401D-04

44	-0.469647D-04	0.297792D-05	0.193793D-04	0.218298D-04	0.274227D-04
45	0.107337D-03	-0.170735D-05	-0.360518D-04	-0.465486D-04	-0.441642D-04
46	-0.132614D-05	-0.270510D-05	-0.111192D-04	0.224702D-04	-0.136293D-06
47	-0.259348D-04	0.289144D-05	-0.841961D-05	-0.304597D-04	-0.140675D-04
48	-0.141267D-04	0.450364D-05	0.973739D-06	-0.247490D-05	0.607723D-05
49	0.259251D-03	-0.204051D-03	0.211051D-03	-0.402104D-03	0.105016D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.130094D-03				
22	0.561311D-04	0.580237D-03			
23	-0.297777D-04	-0.160260D-03	0.114478D-02		
24	0.187733D-05	0.145422D-03	-0.169574D-03	0.458759D-03	
25	0.310411D-04	0.387681D-03	-0.426573D-03	0.349249D-03	0.215879D-02
26	-0.188693D-04	-0.431649D-05	0.125639D-04	0.953000D-06	-0.960954D-05
27	-0.201563D-05	-0.145989D-03	0.485497D-04	-0.474306D-04	-0.932949D-04
28	-0.239542D-05	0.358910D-04	-0.214897D-03	0.411722D-04	0.120652D-03
29	0.145107D-06	-0.423480D-04	0.504075D-04	-0.100368D-03	-0.679564D-04
30	0.169611D-05	-0.204137D-03	0.193286D-03	-0.170916D-03	-0.469333D-03
31	0.116248D-04	0.445056D-04	-0.999896D-04	0.584032D-04	0.119435D-03
32	-0.179233D-04	-0.879369D-05	-0.408137D-04	-0.216593D-04	-0.114903D-03
33	0.488184D-05	0.463421D-04	0.204688D-04	0.476856D-05	0.545619D-04
34	0.619862D-05	0.660884D-04	-0.116735D-04	-0.128169D-04	0.662323D-04
35	0.701831D-05	-0.576479D-05	-0.175456D-03	0.277560D-04	-0.100725D-05
36	0.276314D-04	0.168761D-04	0.193482D-03	0.105281D-04	0.113066D-03
37	0.841354D-05	0.824846D-05	0.103233D-04	0.483077D-04	0.110468D-03
38	0.274615D-04	0.464741D-04	0.161208D-03	-0.427172D-04	0.193297D-03
39	0.415375D-04	0.603810D-04	0.615019D-04	0.115853D-05	0.242045D-03
40	-0.342548D-04	0.235297D-04	-0.233454D-03	0.180417D-03	0.767597D-05
41	0.287311D-05	-0.150237D-04	0.147374D-04	-0.145686D-04	-0.804818D-05
42	0.607388D-06	-0.323122D-05	0.323001D-05	-0.482558D-05	-0.298571D-05
43	0.384988D-05	0.649900D-05	0.139877D-04	0.272598D-05	-0.428194D-04
44	0.564053D-05	-0.125003D-04	-0.175373D-04	0.130161D-05	0.410293D-04
45	-0.152400D-04	0.209254D-04	0.145158D-04	0.645226D-05	-0.504027D-04
46	0.909877D-05	-0.191375D-05	-0.184257D-04	0.335146D-05	0.570599D-05
47	0.911670D-05	-0.330455D-05	0.477576D-04	-0.124114D-04	0.295033D-04
48	0.309806D-05	0.107329D-04	0.319577D-04	0.281564D-05	-0.292458D-05
49	-0.794780D-04	0.103680D-03	-0.515948D-03	0.472784D-03	0.236273D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

26	27	28	29	30
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26	0.109695D-03				
27	0.442769D-04	0.478772D-03			
28	-0.244431D-04	-0.121141D-03	0.891757D-03		
29	0.154047D-04	0.105645D-03	-0.116451D-03	0.388095D-03	
30	0.690763D-05	0.174249D-03	-0.128731D-03	0.165147D-03	0.881107D-03
31	-0.145544D-04	-0.286291D-03	0.196354D-03	-0.208914D-03	-0.364926D-03
32	0.251245D-04	0.365519D-04	-0.562745D-04	-0.101092D-04	0.589500D-04
33	0.175449D-04	-0.200500D-04	-0.421411D-04	0.393418D-04	-0.131431D-04
34	-0.340674D-04	0.207674D-05	-0.173625D-04	-0.103248D-04	-0.660979D-04
35	0.123975D-04	-0.227674D-04	0.599415D-04	-0.467091D-04	-0.492625D-04
36	-0.508894D-04	-0.607965D-04	-0.409643D-04	0.456356D-04	-0.711041D-04
37	-0.233431D-04	-0.414617D-04	0.933544D-04	0.270842D-04	-0.682618D-04
38	-0.131770D-04	0.996869D-05	0.287806D-04	0.482767D-04	-0.875923D-04
39	-0.392352D-04	0.875649D-05	0.926638D-04	0.920244D-04	-0.820227D-04
40	0.111709D-04	-0.371206D-04	0.142395D-03	-0.308947D-03	0.177389D-03
41	0.912724D-06	0.644172D-05	-0.408320D-05	0.265274D-05	0.183829D-04
42	-0.172678D-05	-0.997353D-06	0.464082D-05	0.844543D-05	0.580890D-05
43	-0.109438D-04	0.307501D-05	-0.595906D-05	0.123649D-04	0.241779D-05
44	0.528741D-06	-0.111414D-04	0.511918D-04	-0.261744D-04	-0.253728D-05
45	0.182527D-04	0.258419D-04	-0.763177D-04	0.491807D-04	-0.192743D-05
46	0.755450D-06	-0.105502D-04	0.275359D-04	0.959303D-05	-0.169878D-04
47	0.768485D-06	0.141053D-04	-0.194120D-04	0.178666D-04	0.149830D-05
48	0.189541D-05	0.202293D-04	-0.225082D-04	-0.519796D-05	-0.182201D-05
49	0.180730D-04	-0.956341D-04	0.428267D-03	-0.791065D-03	0.399709D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.140208D-02				
32	-0.958230D-04	0.947142D-02			
33	-0.936936D-05	0.547393D-04	0.400123D-02		
34	-0.166400D-04	0.244083D-04	-0.240859D-02	0.464232D-02	
35	0.121853D-03	-0.106230D-03	-0.205953D-03	0.402866D-03	0.293115D-02
36	0.112572D-03	-0.938863D-02	-0.889185D-05	-0.638262D-05	0.286011D-05
37	0.222144D-03	-0.913269D-02	-0.384008D-04	0.167862D-05	0.127515D-03
38	-0.297411D-04	-0.833186D-05	0.120534D-03	0.194998D-03	0.216057D-04
39	0.924247D-05	0.252182D-03	-0.224433D-04	0.335662D-03	0.868374D-04
40	0.231238D-03	-0.894922D-03	-0.202656D-03	-0.790003D-04	-0.645629D-03
41	0.111437D-04	0.312978D-04	-0.185362D-04	0.875580D-05	-0.111329D-04
42	0.546554D-06	0.178384D-04	-0.102351D-04	0.417730D-04	-0.768399D-05
43	-0.138881D-04	-0.122619D-03	-0.102583D-03	0.781042D-04	0.260923D-05
44	0.391130D-04	0.176671D-03	0.695428D-04	-0.489768D-04	-0.336454D-04

45	-0.451003D-04	-0.432216D-04	-0.584058D-04	0.416301D-04	0.358152D-04
46	0.228237D-04	-0.736210D-04	0.158802D-04	0.811322D-05	0.110488D-03
47	0.164809D-04	0.107193D-03	-0.435445D-04	0.232046D-04	-0.876037D-04
48	0.296070D-04	-0.159026D-04	-0.151905D-04	0.693796D-04	-0.800968D-04
49	0.667901D-03	-0.261076D-02	-0.573562D-03	0.595156D-07	-0.165387D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.144846D-01				
37	0.928120D-02	0.130773D-01			
38	0.583048D-03	0.326706D-03	0.177616D-01		
39	0.228023D-04	0.121590D-03	0.127159D-01	0.172042D-01	
40	0.260152D-03	0.641656D-03	-0.896655D-02	-0.133962D-01	0.599196D-01
41	-0.126837D-03	-0.158381D-03	-0.270230D-04	0.628628D-05	-0.496619D-05
42	0.222807D-04	-0.390583D-04	-0.596121D-04	0.327360D-04	-0.623495D-04
43	0.459471D-04	0.181712D-03	0.134765D-03	0.989830D-04	-0.447974D-03
44	-0.110220D-03	-0.178165D-03	-0.216242D-03	-0.138188D-03	0.347816D-03
45	-0.376141D-04	0.655991D-04	0.833181D-04	-0.112280D-03	-0.474036D-04
46	0.634092D-04	0.560840D-04	-0.864572D-04	0.217263D-04	-0.418049D-03
47	-0.939117D-04	-0.718761D-04	-0.552982D-04	-0.178038D-03	0.509645D-03
48	0.656216D-04	0.239221D-04	0.695907D-05	-0.398390D-05	0.477734D-04
49	0.125838D-02	0.233108D-02	-0.122402D-01	-0.241165D-01	0.154837D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.157479D-03				
42	0.628007D-05	0.111564D-03			
43	-0.700820D-05	-0.249750D-05	0.197541D-02		
44	-0.778979D-05	0.758559D-05	-0.114072D-02	0.143830D-02	
45	-0.110552D-04	-0.894891D-05	0.694678D-03	-0.130246D-02	0.244774D-02
46	-0.578474D-05	0.464537D-05	-0.416592D-04	0.115599D-03	-0.971225D-04
47	0.568393D-05	-0.656561D-05	0.598122D-05	-0.753707D-04	0.225350D-03
48	-0.302320D-05	-0.671332D-05	0.338097D-04	-0.908427D-05	0.232589D-04
49	-0.228559D-04	-0.205414D-03	-0.111212D-02	0.746044D-03	-0.670739D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.675139D-03			

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47 -0.409057D-03  0.721881D-03
48 -0.833245D-04  0.167874D-03  0.554895D-03
49 -0.114653D-02  0.128317D-02  0.142990D-03  0.410636D+00

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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.218	1.000			
3	-0.050	-0.168	1.000		
4	0.044	0.220	-0.204	1.000	
5	-0.034	-0.313	0.167	-0.223	1.000
6	-0.015	0.011	0.009	0.011	-0.020
7	0.008	0.007	0.033	0.035	-0.026
8	0.042	0.010	-0.016	0.045	-0.017
9	-0.030	-0.016	-0.026	-0.015	0.054
10	0.027	0.003	-0.001	0.031	0.011
11	0.056	0.005	-0.047	0.008	-0.002
12	0.004	0.031	-0.013	0.022	0.002
13	0.001	0.056	-0.004	-0.004	-0.035
14	0.000	0.014	0.011	-0.006	0.053
15	-0.034	0.009	-0.010	-0.013	0.021
16	-0.018	-0.013	-0.055	0.062	-0.016
17	0.006	-0.024	0.020	0.011	0.018
18	-0.002	0.034	0.012	0.006	0.006
19	0.011	0.015	0.012	-0.035	-0.019
20	0.015	0.040	0.002	-0.006	-0.017
21	0.028	-0.039	-0.025	0.031	-0.003
22	0.019	0.017	-0.015	0.035	0.012
23	-0.009	-0.018	0.024	-0.045	-0.024
24	0.002	0.014	-0.003	-0.013	0.018
25	0.064	0.010	-0.045	0.050	0.003
26	0.000	0.031	-0.014	-0.011	-0.042
27	-0.007	-0.016	0.020	0.024	-0.012
28	0.019	0.051	-0.010	0.034	-0.022
29	-0.012	-0.063	0.048	-0.022	-0.035
30	-0.016	-0.048	0.030	-0.042	0.020
31	-0.023	0.007	-0.008	0.024	0.000
32	0.015	0.008	-0.022	0.029	-0.001
33	0.009	-0.020	-0.031	0.041	0.002
34	0.024	0.012	0.049	-0.015	0.018
35	-0.025	0.168	-0.120	0.147	-0.138
36	0.000	-0.019	0.016	0.010	-0.009

37	0.002	-0.002	0.021	-0.038	0.008
38	0.027	0.012	0.015	0.015	0.005
39	0.036	0.002	0.028	0.011	-0.005
40	-0.002	0.013	0.010	0.002	0.003
41	0.003	-0.045	0.026	0.003	0.033
42	-0.006	0.006	0.022	-0.006	0.011
43	0.035	0.030	0.026	-0.020	0.005
44	-0.047	-0.034	-0.033	-0.018	-0.015
45	0.010	-0.008	0.030	0.026	0.011
46	-0.020	0.014	-0.014	-0.013	0.000
47	0.057	-0.029	0.004	0.008	0.009
48	0.031	0.012	-0.040	0.004	-0.004
49	0.005	0.018	0.011	0.007	0.000

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.175	1.000			
8	-0.008	0.075	1.000		
9	-0.050	-0.120	0.094	1.000	
10	0.008	0.202	-0.054	0.088	1.000
11	-0.001	-0.018	0.020	0.017	-0.015
12	0.013	-0.010	0.008	0.039	0.008
13	0.041	-0.042	-0.002	0.015	-0.025
14	0.015	-0.033	-0.036	0.012	0.018
15	-0.022	-0.017	-0.014	0.021	0.016
16	0.020	0.020	0.041	-0.004	-0.022
17	0.012	0.028	0.007	0.011	-0.029
18	0.040	0.008	0.001	0.023	-0.022
19	0.019	-0.019	-0.067	0.021	0.025
20	0.027	-0.022	0.027	0.001	-0.003
21	-0.032	-0.026	0.018	0.009	-0.060
22	0.012	-0.037	-0.057	0.012	-0.035
23	0.007	0.007	-0.025	-0.025	0.051
24	0.018	0.020	-0.005	-0.009	-0.019
25	0.006	0.028	-0.008	0.016	-0.037
26	-0.008	0.065	0.022	-0.025	0.028
27	-0.030	0.069	-0.011	-0.057	0.042
28	0.030	-0.023	0.023	0.006	-0.035
29	0.012	0.027	-0.014	-0.021	0.026
30	0.011	0.001	0.009	-0.040	0.028
31	-0.011	-0.016	0.036	0.047	-0.041

32	0.024	-0.045	-0.023	-0.060	0.110
33	0.042	-0.017	-0.001	-0.009	-0.004
34	-0.018	0.001	0.028	-0.028	0.001
35	-0.012	-0.012	-0.019	0.001	-0.008
36	-0.008	-0.031	0.034	0.020	-0.048
37	0.000	0.001	0.040	-0.001	-0.064
38	-0.042	0.002	-0.004	-0.005	0.048
39	-0.032	0.005	0.013	-0.034	0.035
40	0.004	0.014	0.031	0.014	-0.002
41	0.012	0.037	-0.017	0.076	0.038
42	0.046	0.012	-0.023	-0.060	0.017
43	-0.025	-0.015	0.008	-0.002	-0.026
44	0.046	0.008	0.013	-0.024	-0.003
45	-0.046	0.015	-0.007	0.036	0.033
46	-0.018	0.024	-0.034	-0.004	-0.024
47	-0.035	0.017	0.010	-0.002	0.022
48	0.001	-0.021	0.024	0.003	0.027
49	-0.013	0.014	0.035	0.010	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.325	1.000			
13	0.077	0.340	1.000		
14	-0.131	-0.164	-0.053	1.000	
15	-0.009	-0.074	-0.159	0.269	1.000
16	0.030	0.046	0.010	-0.114	-0.212
17	0.107	0.263	0.086	-0.201	-0.040
18	0.014	0.137	0.333	-0.041	-0.177
19	-0.012	-0.056	-0.050	0.068	0.264
20	-0.002	0.009	0.058	-0.001	-0.037
21	0.058	0.204	0.049	-0.181	-0.036
22	-0.002	0.078	0.327	-0.050	-0.142
23	-0.005	0.004	-0.019	0.074	0.228
24	0.022	-0.010	0.103	-0.008	-0.015
25	0.069	0.032	0.089	-0.011	-0.035
26	-0.023	-0.234	-0.058	0.069	0.018
27	0.017	-0.047	-0.361	0.015	0.149
28	-0.033	0.015	0.022	0.000	-0.261
29	0.017	-0.029	-0.073	0.016	0.052
30	0.000	0.000	-0.111	0.032	0.067
31	-0.029	0.004	0.085	-0.002	-0.034



32	-0.029	-0.029	0.014	-0.014	-0.036
33	-0.004	-0.046	0.035	0.044	-0.004
34	0.008	0.040	-0.007	-0.077	0.024
35	-0.004	-0.037	-0.044	-0.008	-0.013
36	0.028	0.031	0.007	0.034	0.041
37	0.029	0.041	0.011	0.007	0.027
38	0.010	0.016	-0.010	-0.033	-0.017
39	0.016	0.024	-0.014	-0.031	-0.008
40	0.020	0.021	0.023	0.007	0.000
41	0.042	-0.013	-0.015	-0.023	0.041
42	-0.010	-0.030	-0.029	-0.002	-0.047
43	0.020	0.015	0.049	-0.014	0.017
44	-0.046	-0.027	-0.023	0.028	0.005
45	0.013	-0.010	-0.022	-0.007	0.001
46	-0.021	-0.032	0.008	-0.033	0.018
47	-0.019	0.026	-0.035	0.026	0.005
48	0.036	0.020	-0.035	0.042	0.033
49	0.023	0.026	0.023	0.002	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.034	1.000			
18	0.046	0.222	1.000		
19	-0.256	-0.073	-0.219	1.000	
20	0.016	0.073	0.292	-0.239	1.000
21	0.050	0.231	0.041	-0.011	-0.003
22	0.018	0.061	0.267	-0.084	0.083
23	-0.229	-0.045	-0.047	0.234	-0.069
24	0.071	0.099	0.262	-0.169	0.349
25	0.037	0.036	0.071	-0.043	0.078
26	0.002	-0.181	-0.040	0.055	-0.026
27	0.002	-0.038	-0.231	0.089	-0.075
28	0.189	-0.029	0.057	-0.200	0.035
29	-0.034	-0.073	-0.311	0.185	-0.269
30	-0.035	-0.025	-0.100	0.062	-0.022
31	0.015	0.033	0.066	-0.043	0.040
32	0.026	-0.037	0.002	0.018	-0.008
33	-0.010	-0.039	-0.013	0.009	0.008
34	0.005	0.011	-0.017	-0.004	-0.012
35	0.011	-0.006	-0.007	0.014	0.022
36	-0.045	0.036	-0.026	-0.021	0.028

37	-0.039	0.012	-0.007	-0.024	-0.021
38	0.017	-0.015	-0.024	0.018	-0.048
39	0.008	0.011	-0.027	0.014	-0.036
40	0.008	-0.041	0.026	-0.031	0.013
41	-0.020	0.011	-0.031	0.078	-0.040
42	-0.008	0.024	-0.052	0.006	-0.046
43	0.030	-0.018	-0.018	-0.024	-0.038
44	-0.025	0.011	0.035	0.028	0.040
45	0.045	-0.005	-0.049	-0.046	-0.049
46	-0.001	-0.014	-0.029	0.042	0.000
47	-0.020	0.015	-0.021	-0.055	-0.029
48	-0.012	0.026	0.003	-0.005	0.014
49	0.008	-0.043	0.022	-0.030	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.204	1.000			
23	-0.077	-0.197	1.000		
24	0.008	0.282	-0.234	1.000	
25	0.059	0.346	-0.271	0.351	1.000
26	-0.158	-0.017	0.035	0.004	-0.020
27	-0.008	-0.277	0.066	-0.101	-0.092
28	-0.007	0.050	-0.213	0.064	0.087
29	0.001	-0.089	0.076	-0.238	-0.074
30	0.005	-0.285	0.192	-0.269	-0.340
31	0.027	0.049	-0.079	0.073	0.069
32	-0.016	-0.004	-0.012	-0.010	-0.025
33	0.007	0.030	0.010	0.004	0.019
34	0.008	0.040	-0.005	-0.009	0.021
35	0.011	-0.004	-0.096	0.024	0.000
36	0.020	0.006	0.048	0.004	0.020
37	0.006	0.003	0.003	0.020	0.021
38	0.018	0.014	0.036	-0.015	0.031
39	0.028	0.019	0.014	0.000	0.040
40	-0.012	0.004	-0.028	0.034	0.001
41	0.020	-0.050	0.035	-0.054	-0.014
42	0.005	-0.013	0.009	-0.021	-0.006
43	0.008	0.006	0.009	0.003	-0.021
44	0.013	-0.014	-0.014	0.002	0.023
45	-0.027	0.018	0.009	0.006	-0.022
46	0.031	-0.003	-0.021	0.006	0.005

47	0.030	-0.005	0.053	-0.022	0.024
48	0.012	0.019	0.040	0.006	-0.003
49	-0.011	0.007	-0.024	0.034	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.193	1.000			
28	-0.078	-0.185	1.000		
29	0.075	0.245	-0.198	1.000	
30	0.022	0.268	-0.145	0.282	1.000
31	-0.037	-0.349	0.176	-0.283	-0.328
32	0.025	0.017	-0.019	-0.005	0.020
33	0.026	-0.014	-0.022	0.032	-0.007
34	-0.048	0.001	-0.009	-0.008	-0.033
35	0.022	-0.019	0.037	-0.044	-0.031
36	-0.040	-0.023	-0.011	0.019	-0.020
37	-0.019	-0.017	0.027	0.012	-0.020
38	-0.009	0.003	0.007	0.018	-0.022
39	-0.029	0.003	0.024	0.036	-0.021
40	0.004	-0.007	0.019	-0.064	0.024
41	0.007	0.023	-0.011	0.011	0.049
42	-0.016	-0.004	0.015	0.041	0.019
43	-0.024	0.003	-0.004	0.014	0.002
44	0.001	-0.013	0.045	-0.035	-0.002
45	0.035	0.024	-0.052	0.050	-0.001
46	0.003	-0.019	0.035	0.019	-0.022
47	0.003	0.024	-0.024	0.034	0.002
48	0.008	0.039	-0.032	-0.011	-0.003
49	0.003	-0.007	0.022	-0.063	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.026	1.000			
33	-0.004	0.009	1.000		
34	-0.007	0.004	-0.559	1.000	
35	0.060	-0.020	-0.060	0.109	1.000
36	0.025	-0.802	-0.001	-0.001	0.000
37	0.052	-0.821	-0.005	0.000	0.021

38	-0.006	-0.001	0.014	0.021	0.003
39	0.002	0.020	-0.003	0.038	0.012
40	0.025	-0.038	-0.013	-0.005	-0.049
41	0.024	0.026	-0.023	0.010	-0.016
42	0.001	0.017	-0.015	0.058	-0.013
43	-0.008	-0.028	-0.036	0.026	0.001
44	0.028	0.048	0.029	-0.019	-0.016
45	-0.024	-0.009	-0.019	0.012	0.013
46	0.023	-0.029	0.010	0.005	0.079
47	0.016	0.041	-0.026	0.013	-0.060
48	0.034	-0.007	-0.010	0.043	-0.063
49	0.028	-0.042	-0.014	0.000	-0.048

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.674	1.000			
38	0.036	0.021	1.000		
39	0.001	0.008	0.727	1.000	
40	0.009	0.023	-0.275	-0.417	1.000
41	-0.084	-0.110	-0.016	0.004	-0.002
42	0.018	-0.032	-0.042	0.024	-0.024
43	0.009	0.036	0.023	0.017	-0.041
44	-0.024	-0.041	-0.043	-0.028	0.037
45	-0.006	0.012	0.013	-0.017	-0.004
46	0.020	0.019	-0.025	0.006	-0.066
47	-0.029	-0.023	-0.015	-0.051	0.077
48	0.023	0.009	0.002	-0.001	0.008
49	0.016	0.032	-0.143	-0.287	0.987

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.047	1.000			
43	-0.013	-0.005	1.000		
44	-0.016	0.019	-0.677	1.000	
45	-0.018	-0.017	0.316	-0.694	1.000
46	-0.018	0.017	-0.036	0.117	-0.076
47	0.017	-0.023	0.005	-0.074	0.170
48	-0.010	-0.027	0.032	-0.010	0.020

49	-0.003	-0.030	-0.039	0.031	-0.002
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# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.586	1.000		
48	-0.136	0.265	1.000	
49	-0.069	0.075	0.009	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.039	36
200	1.015	4
300	1.009	30
400	1.010	42
500	1.003	42
600	1.005	42
700	1.003	37
800	1.002	49
900	1.004	42
1000	1.003	42

This is the interaction between latent profile categories and role clarity on improving physical health

#### SUMMARY OF DATA

Number of clusters 57

Size (s)	Cluster ID with Size s
2	4 166
3	65 74 80 30
4	84 22
5	205
6	228
7	93
8	106 144 165 71 170 173 192 72 50
9	40 108
11	107 83 181 61 75 68
12	69 174 206 226 81
13	162
16	92 154
19	114
20	145 2
22	116
23	36 156 169 142
24	152
26	98
28	122 202
30	178
32	6
46	24
59	204
62	125
64	209
108	217
216	110
223	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 4

PROPORTION OF DATA PRESENT

	Covariance	Coverage			
	PHYCAT16	CLU2	CLU3	PHY15	KES15
PHYCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	0.971	0.971	0.971	0.971	0.971
CHOICE15	0.963	0.963	0.963	0.963	0.963
BULLY15	0.966	0.966	0.966	0.966	0.966
PRESS15	0.966	0.966	0.966	0.966	0.966
DUTIES15	0.966	0.966	0.966	0.966	0.966

	Covariance	Coverage		
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.963			
BULLY15	0.963	0.966		
PRESS15	0.963	0.966	0.966	
DUTIES15	0.963	0.966	0.966	0.966

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.364	517.000
Category 2	0.636	905.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	Percentiles 20%/60%	40%/80%	Median
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CLU2		0.316	0.793	0.000	68.42%	0.000	0.000	0.000
	57.000	0.216	-1.372	1.000	31.58%	0.000	1.000	
CLU3		0.439	0.247	0.000	56.14%	0.000	0.000	0.000
	57.000	0.246	-1.939	1.000	43.86%	1.000	1.000	
PHY15		0.000	2.446	-0.155	85.58%	-0.155	-0.155	-0.155
	1422.000	0.154	5.391	1.845	1.13%	-0.155	-0.155	
KES15		0.000	1.141	-0.953	8.62%	-0.620	-0.287	-0.120
	1381.000	0.613	1.071	3.047	0.36%	0.047	0.547	
CHOICE15		0.000	-0.138	-1.878	14.60%	-0.878	0.122	0.122
	1370.000	1.250	-0.758	2.122	5.77%	0.122	1.122	
BULLY15		0.000	2.479	-0.312	79.02%	-0.312	-0.312	-0.312
	1373.000	0.474	6.315	3.688	0.44%	-0.312	0.688	
PRESS15		0.000	0.183	-1.756	14.06%	-0.756	-0.756	0.244
	1373.000	1.207	-0.514	2.244	7.21%	0.244	1.244	
DUTIES15		3.873	-0.896	1.000	3.06%	3.000	4.000	4.000
	1373.000	0.975	0.587	5.000	27.75%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.824	0.117	0.000	0.615	1.061	*
CHOICE15	-0.048	0.032	0.067	-0.112	0.017	
PRESS15	0.002	0.036	0.482	-0.070	0.072	
BULLY15	0.043	0.055	0.224	-0.065	0.149	
KES15	0.166	0.054	0.001	0.060	0.271	*



KES15	WITH					
PHY15		0.071	0.009	0.000	0.054	0.088 *
CHOICE15		-0.135	0.024	0.000	-0.184	-0.091 *
BULLY15		0.127	0.015	0.000	0.099	0.157 *
PRESS15		0.207	0.024	0.000	0.161	0.257 *
DUTIES15		-0.202	0.022	0.000	-0.245	-0.159 *
PHY15	WITH					
CHOICE15		-0.033	0.012	0.002	-0.057	-0.010 *
BULLY15		0.013	0.007	0.045	-0.002	0.027
PRESS15		0.016	0.011	0.075	-0.005	0.039
DUTIES15		-0.010	0.010	0.171	-0.032	0.011
CHOICE15	WITH					
BULLY15		-0.134	0.021	0.000	-0.176	-0.095 *
PRESS15		-0.183	0.033	0.000	-0.247	-0.116 *
DUTIES15		0.165	0.030	0.000	0.111	0.226 *
BULLY15	WITH					
PRESS15		0.179	0.021	0.000	0.138	0.222 *
DUTIES15		-0.138	0.020	0.000	-0.178	-0.101 *
PRESS15	WITH					
DUTIES15		-0.245	0.030	0.000	-0.304	-0.185 *
Means						
PHY15		0.000	0.010	0.499	-0.020	0.020
KES15		0.000	0.021	0.492	-0.040	0.043
CHOICE15		0.000	0.029	0.489	-0.058	0.057
BULLY15		0.001	0.018	0.483	-0.036	0.035
PRESS15		0.002	0.029	0.473	-0.056	0.058
Variances						
PHY15		0.154	0.006	0.000	0.144	0.166 *
KES15		0.614	0.024	0.000	0.569	0.665 *
CHOICE15		1.251	0.049	0.000	1.160	1.352 *
BULLY15		0.475	0.018	0.000	0.441	0.513 *
PRESS15		1.207	0.047	0.000	1.120	1.303 *
DUTIES15		0.954	0.037	0.000	0.887	1.032 *

Between Level

S1 ON

CLU2	-0.067	0.137	0.306	-0.353	0.195	
CLU3	0.017	0.129	0.455	-0.236	0.260	
PHYCAT16 ON						
CLU2	-0.136	0.129	0.143	-0.386	0.112	
CLU3	-0.039	0.121	0.375	-0.259	0.207	
DUTIES15	-0.243	0.239	0.157	-0.707	0.239	
CLU2 WITH						
CLU3	-0.137	0.038	0.000	-0.228	-0.075	*
DUTIES15	0.014	0.024	0.283	-0.031	0.064	
CLU3 WITH						
DUTIES15	-0.014	0.025	0.281	-0.067	0.035	
Means						
CLU2	0.318	0.063	0.000	0.195	0.441	*
CLU3	0.438	0.068	0.000	0.301	0.566	*
DUTIES15	3.907	0.049	0.000	3.812	4.008	*
Intercepts						
S1	0.059	0.112	0.291	-0.169	0.275	
Thresholds						
PHYCAT16\$1	-1.390	0.930	0.064	-3.247	0.431	
Variances						
CLU2	0.231	0.045	0.000	0.166	0.342	*
CLU3	0.262	0.050	0.000	0.185	0.378	*
DUTIES15	0.068	0.020	0.000	0.040	0.117	*
Residual Variances						
PHYCAT16	0.007	0.010	0.000	0.000	0.038	*
S1	0.010	0.018	0.000	0.001	0.072	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
			Lower 2.5%	Upper 2.5%	

Within-Level Standardized Estimates Averaged Over Clusters

S1   PHYCAT16 ON						
DUTIES15	0.037	0.040	0.174	-0.040	0.115	
PHYCAT16 ON						
PHY15	0.299	0.038	0.000	0.226	0.372	*
CHOICE15	-0.050	0.034	0.070	-0.118	0.018	
PRESS15	0.002	0.036	0.476	-0.069	0.072	
BULLY15	0.028	0.036	0.215	-0.040	0.097	
KES15	0.120	0.038	0.001	0.045	0.192	*
KES15 WITH						
PHY15	0.230	0.026	0.000	0.179	0.278	*
CHOICE15	-0.154	0.026	0.000	-0.206	-0.105	*
BULLY15	0.236	0.025	0.000	0.184	0.285	*
PRESS15	0.241	0.025	0.000	0.190	0.291	*
DUTIES15	-0.265	0.025	0.000	-0.314	-0.214	*
PHY15 WITH						
CHOICE15	-0.075	0.027	0.004	-0.126	-0.021	*
BULLY15	0.046	0.027	0.049	-0.008	0.099	
PRESS15	0.036	0.027	0.090	-0.015	0.090	
DUTIES15	-0.026	0.027	0.170	-0.081	0.026	
CHOICE15 WITH						
BULLY15	-0.173	0.026	0.000	-0.224	-0.123	*
PRESS15	-0.149	0.026	0.000	-0.200	-0.096	*
DUTIES15	0.151	0.027	0.000	0.099	0.206	*
BULLY15 WITH						
PRESS15	0.235	0.025	0.000	0.186	0.286	*
DUTIES15	-0.205	0.027	0.000	-0.257	-0.153	*
PRESS15 WITH						
DUTIES15	-0.229	0.026	0.000	-0.279	-0.177	*
Means						
PHY15	0.000	0.027	0.492	-0.051	0.051	
KES15	0.001	0.027	0.493	-0.050	0.053	
CHOICE15	0.000	0.027	0.499	-0.053	0.053	
BULLY15	0.001	0.027	0.488	-0.052	0.051	
PRESS15	0.001	0.026	0.486	-0.051	0.052	

Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1	ON					
CLU2		-0.278	0.462	0.306	-1.026	0.726
CLU3		0.069	0.489	0.455	-0.866	0.952
PHYCAT16	ON					
CLU2		-0.449	0.389	0.143	-1.078	0.424
CLU3		-0.138	0.413	0.375	-0.891	0.691
DUTIES15		-0.451	0.363	0.157	-0.904	0.456
CLU2	WITH					
CLU3		-0.562	0.090	0.000	-0.709	-0.355 *
DUTIES15		0.112	0.175	0.283	-0.243	0.449
CLU3	WITH					
DUTIES15		-0.109	0.170	0.281	-0.425	0.248
Means						
CLU2		0.661	0.145	0.000	0.379	0.943 *
CLU3		0.855	0.154	0.000	0.572	1.173 *
DUTIES15		14.979	2.071	0.000	11.441	19.600 *
Intercepts						
S1		0.443	0.864	0.291	-1.170	2.109
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
PHYCAT16		0.357	0.256	0.000	0.023	0.904 *
S1		0.690	0.251	0.000	0.083	0.985 *

# R-SQUARE

## Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.149	0.028	0.000	0.098	0.209

## Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.643	0.256	0.000	0.096	0.977

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.310	0.251	0.000	0.015	0.917

## TECHNICAL 1 OUTPUT

### PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

\_\_\_\_\_

0

NU

PHYCAT16

\_\_\_\_\_

0

PHY15

\_\_\_\_\_

0

KES15

\_\_\_\_\_

0

CHOICE15

\_\_\_\_\_

0

BULLY15

\_\_\_\_\_

0

NU

PRESS15

\_\_\_\_\_

0

DUTIES15

\_\_\_\_\_

0

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>0</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	
PHYCAT16	0	0	0	0	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA	
PRESS15	DUTIES15
<u>10</u>	<u>0</u>
PHYCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>11</u>	<u>13</u>	<u>16</u>		
PHYCAT16	0	11			
PHY15	0	12			
KES15	0	13			
CHOICE15	0	14	15		

BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI	
PRESS15	DUTIES15
PRESS15	25
DUTIES15	30
	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
49

NU	PHYCAT16	CLU2	CLU3	DUTIES15
	0	0	0	0

LAMBDA	S1	PHYCAT16	CLU2	CLU3	DUTIES15
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	PHYCAT16	CLU2	CLU3	DUTIES15
PHYCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
DUTIES15	0	0	0	0



ALPHA					
S1		PHYCAT16	CLU2	CLU3	DUTIES15
	<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>	<u>35</u>

BETA					
S1		PHYCAT16	CLU2	CLU3	DUTIES15
	<u>0</u>	<u>0</u>	<u>36</u>	<u>37</u>	<u>0</u>
S1	0	0	38	39	40
PHYCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
DUTIES15	0	0	0	0	0

PSI					
S1		PHYCAT16	CLU2	CLU3	DUTIES15
	<u>41</u>	<u></u>	<u></u>	<u></u>	<u></u>
S1	0	42			
PHYCAT16	0	0	43		
CLU2	0	0	44	45	
CLU3	0	0	46	47	48
DUTIES15	0	0			

STARTING VALUES FOR WITHIN

TAU	
PHYCAT16	
	<u>0.000</u>

NU					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU		
PRESS15	DUTIES15	

<u>0.000</u>	<u>0.000</u>
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LAMBDA

PHYCAT16

PHY15

KES15

CHOICE15

BULLY15

PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

PRESS15

DUTIES15

PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

PHYCAT16

PHY15

KES15

CHOICE15

BULLY15

PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

PRESS15

DUTIES15

PRESS15	<u>0.000</u>
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DUTIES15	0.000	0.000
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ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.077		

KES15	0.000	0.000	0.306		
CHOICE15	0.000	0.000	0.000	0.625	
BULLY15	0.000	0.000	0.000	0.000	0.237
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.604
DUTIES15	0.000
	0.488

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/>
-0.311

NU	PHYCAT16	CLU2	CLU3	DUTIES15
	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000

LAMBDA					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	1.000

THETA				
PHYCAT16	PHYCAT16	CLU2	CLU3	DUTIES15
	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	

DUTIES15	0.000	0.000	0.000	0.000
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ALPHA					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
0.000	0.000	0.375	0.482	3.873	

BETA					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
S1	0.000	0.000	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI					
S1	PHYCAT16	CLU2	CLU3	DUTIES15	
S1	1.000				
PHYCAT16	0.000	1.000			
CLU2	0.000	0.000	0.117		
CLU3	0.000	0.000	0.125		
DUTIES15	0.000	0.000	0.000	0.488	

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity

Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

#### ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1	2	3	4	5
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1	0.109789D-03				
2	0.501061D-04	0.443270D-03			
3	-0.164792D-04	-0.890584D-04	0.868069D-03		
4	0.940345D-05	0.750071D-04	-0.970270D-04	0.335377D-03	
5	0.100436D-04	0.118388D-03	-0.110832D-03	0.112356D-03	0.831349D-03
6	-0.220818D-04	0.449717D-04	-0.218907D-06	0.522282D-04	-0.141887D-04
7	0.129687D-04	0.194210D-04	0.372806D-04	0.454144D-04	-0.253253D-04
8	0.890438D-05	-0.978412D-05	-0.666812D-05	0.143508D-04	-0.118838D-04
9	-0.126193D-04	-0.249605D-04	-0.359875D-04	-0.191515D-04	0.703402D-04
10	0.180129D-04	-0.524449D-05	-0.522495D-05	0.690837D-05	-0.204939D-04
11	0.324874D-05	-0.269905D-05	-0.560613D-05	-0.184522D-05	0.318506D-06
12	0.406072D-06	0.403857D-05	-0.268178D-05	0.243352D-05	0.132633D-05
13	0.398323D-06	0.250295D-04	-0.131500D-06	-0.383463D-05	-0.150102D-04
14	0.477092D-07	0.329818D-05	0.403583D-05	-0.144769D-05	0.198435D-04
15	-0.826849D-05	0.787742D-05	-0.108721D-04	-0.388404D-05	0.186116D-04
16	-0.948080D-05	-0.253528D-04	-0.696148D-04	0.462022D-04	0.115179D-04
17	0.387261D-06	-0.440156D-05	0.492491D-05	0.832980D-06	-0.387064D-06
18	-0.680508D-06	0.605862D-05	0.860097D-05	-0.125537D-05	0.279286D-05
19	0.248426D-05	0.123548D-04	0.294189D-05	-0.893004D-05	-0.753206D-05
20	0.228125D-05	0.762311D-05	0.688106D-05	-0.749349D-05	-0.683952D-05
21	0.321232D-05	-0.132261D-04	-0.694212D-05	0.429922D-05	-0.342239D-05
22	0.605394D-05	0.104144D-04	-0.122797D-04	0.197408D-04	0.250856D-04
23	-0.421283D-05	0.657588D-05	0.354929D-05	-0.243123D-04	-0.414581D-04
24	0.299936D-05	0.552530D-05	0.174991D-05	-0.915647D-06	0.140859D-04
25	0.371678D-04	0.111840D-04	-0.608848D-04	0.529275D-04	0.241335D-04
26	0.238927D-06	0.770152D-05	-0.404203D-05	-0.185636D-05	-0.391134D-05
27	-0.203710D-05	-0.563558D-05	0.107886D-04	0.940991D-05	-0.661442D-05
28	0.643960D-05	0.261877D-04	-0.398021D-05	0.252268D-04	0.436490D-05
29	-0.400478D-05	-0.218830D-04	0.233243D-04	-0.998023D-05	-0.394450D-04
30	-0.785704D-05	-0.188451D-04	0.139539D-04	-0.147581D-04	-0.647712D-05
31	-0.592727D-05	-0.266559D-05	0.582285D-05	0.847295D-05	0.167614D-04
32	0.136183D-04	0.199010D-04	-0.528226D-04	0.292925D-04	-0.997106D-05
33	0.610307D-05	-0.364067D-04	-0.569769D-04	0.446659D-04	0.128910D-04
34	0.178252D-04	0.325729D-04	0.942185D-04	-0.116279D-04	0.349113D-04
35	-0.294650D-04	-0.120371D-03	0.640613D-04	-0.935947D-04	-0.164491D-03
36	-0.160954D-04	-0.304641D-04	0.593507D-04	0.545555D-04	0.173750D-04
37	-0.122740D-05	-0.390492D-05	0.924734D-04	-0.655190D-04	0.437220D-04
38	0.350011D-04	0.259285D-04	0.113741D-03	0.372878D-04	0.371030D-04
39	0.313522D-04	-0.179876D-04	0.149484D-03	0.416954D-04	0.559590D-04
40	-0.346791D-04	0.568127D-04	-0.125306D-03	0.690849D-04	0.257698D-03
41	0.439054D-05	-0.878059D-05	0.109934D-04	0.912956D-05	0.800115D-05
42	-0.792724D-07	0.437645D-05	0.332878D-05	0.203154D-05	0.139726D-04
43	0.136792D-04	0.337740D-04	0.288964D-04	-0.196033D-04	0.238608D-04

44	-0.127386D-04	-0.223398D-04	-0.429352D-04	0.484080D-05	-0.356221D-04
45	-0.751049D-05	-0.209994D-04	0.544696D-04	-0.387003D-05	0.143657D-04
46	-0.453526D-05	0.160106D-04	-0.672951D-05	-0.616482D-05	0.108683D-04
47	0.100455D-04	-0.242470D-04	0.713131D-05	-0.121890D-05	-0.285556D-05
48	-0.167489D-05	0.129673D-04	-0.104279D-04	0.712200D-05	-0.216735D-05
49	-0.944082D-04	0.284649D-03	-0.442060D-03	0.346437D-03	0.107754D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.137163D-01				
7	-0.107804D-02	0.294943D-02			
8	-0.384353D-04	0.125046D-03	0.103300D-02		
9	-0.378630D-03	-0.307161D-03	0.136855D-03	0.303979D-02	
10	0.220279D-03	-0.404721D-03	0.126085D-03	-0.316127D-03	0.132668D-02
11	0.355610D-07	-0.561065D-05	0.250336D-05	0.967628D-05	-0.144028D-05
12	0.138729D-04	-0.470824D-05	0.297123D-05	0.221519D-04	-0.582730D-06
13	0.109967D-03	-0.354223D-04	-0.446534D-05	0.300147D-04	-0.290638D-05
14	0.190048D-04	-0.216319D-04	-0.132258D-04	0.121380D-04	-0.167692D-05
15	-0.638508D-04	-0.376272D-04	-0.861391D-05	0.241735D-04	0.341333D-04
16	0.140831D-03	0.609371D-04	0.591442D-04	-0.130085D-04	-0.651698D-04
17	0.956585D-05	0.103287D-04	0.104380D-05	0.113930D-05	-0.102589D-04
18	0.620026D-04	-0.542166D-05	0.207111D-05	0.680707D-05	-0.828755D-05
19	0.370593D-04	-0.291737D-04	-0.434868D-04	0.142564D-04	0.117702D-04
20	0.633637D-04	-0.209280D-04	0.122539D-04	0.582325D-05	0.781477D-05
21	-0.362910D-04	-0.125476D-04	0.658603D-05	0.372066D-05	-0.217254D-05
22	0.238837D-04	-0.418696D-04	-0.464412D-04	0.313436D-04	-0.315024D-04
23	0.220215D-04	-0.755226D-06	-0.235412D-04	-0.409199D-04	0.362887D-04
24	0.428328D-04	0.194078D-04	-0.530080D-05	-0.235805D-05	-0.254938D-04
25	0.412093D-04	0.433826D-04	-0.930264D-05	0.543966D-04	-0.113912D-03
26	-0.232489D-04	0.404918D-04	0.664271D-05	-0.105945D-04	0.528138D-05
27	-0.837935D-04	0.685692D-04	-0.573393D-05	-0.624779D-04	0.399424D-04
28	0.104613D-03	-0.397654D-04	0.134336D-04	0.980810D-05	-0.296478D-04
29	0.313589D-04	0.339600D-04	-0.115686D-04	-0.366957D-04	0.134603D-04
30	0.585268D-04	0.162735D-04	0.421756D-05	-0.913237D-04	0.775363D-04
31	-0.592800D-04	-0.118500D-04	0.339250D-04	0.120882D-03	-0.632110D-04
32	0.306405D-04	0.682176D-03	-0.255151D-03	0.270260D-03	0.365769D-03
33	0.290274D-03	-0.385996D-04	-0.112729D-04	0.953320D-05	0.527789D-05
34	-0.132037D-03	0.123572D-04	0.683403D-04	-0.117836D-03	-0.200494D-04
35	-0.859219D-04	-0.820683D-04	-0.242085D-04	0.225286D-04	0.661049D-04
36	0.158424D-03	-0.340448D-03	0.156876D-03	0.145157D-03	-0.194836D-03
37	0.199386D-03	-0.995267D-04	0.134580D-03	-0.758017D-05	-0.301890D-03
38	-0.729663D-03	0.265352D-03	-0.319738D-04	-0.458342D-04	0.305393D-04



39	-0.588282D-03	0.281203D-03	0.818331D-04	-0.127881D-03	-0.962920D-05
40	-0.524702D-03	0.332665D-03	-0.157211D-04	0.196529D-03	-0.159977D-03
41	0.453672D-04	-0.476639D-05	-0.167948D-04	0.233759D-04	0.171273D-04
42	0.505844D-04	0.128923D-04	-0.104390D-05	-0.256289D-04	0.761233D-06
43	-0.992756D-04	-0.614910D-04	0.319466D-05	0.935559D-05	0.598985D-05
44	0.162945D-03	0.507483D-04	0.265630D-04	-0.331110D-04	-0.470327D-05
45	-0.177312D-03	0.163706D-04	-0.286884D-04	0.795456D-04	-0.769619D-05
46	-0.222459D-04	-0.185260D-04	-0.312439D-04	0.847184D-05	-0.418854D-04
47	-0.532008D-04	0.728217D-04	0.285639D-04	-0.939879D-05	0.289669D-04
48	-0.477047D-04	-0.111511D-04	0.732313D-05	-0.691966D-05	0.569479D-05
49	-0.328842D-02	0.148559D-02	-0.300218D-04	0.710130D-03	-0.672170D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.344010D-04				
12	0.164065D-04	0.737291D-04			
13	0.108691D-04	0.698684D-04	0.568276D-03		
14	-0.904909D-05	-0.166662D-04	-0.150235D-04	0.140158D-03	
15	-0.127838D-05	-0.151976D-04	-0.918498D-04	0.762174D-04	0.573525D-03
16	0.835536D-05	0.183189D-04	0.103984D-04	-0.656158D-04	-0.245871D-03
17	0.459163D-05	0.165034D-04	0.149933D-04	-0.173755D-04	-0.693886D-05
18	0.118542D-05	0.174024D-04	0.116851D-03	-0.716361D-05	-0.630018D-04
19	-0.142636D-05	-0.989698D-05	-0.245891D-04	0.166886D-04	0.130716D-03
20	-0.205212D-06	0.149792D-05	0.249853D-04	-0.177571D-06	-0.157820D-04
21	0.319539D-05	0.191438D-04	0.127835D-04	-0.252480D-04	-0.961284D-05
22	-0.907139D-07	0.151578D-04	0.185297D-03	-0.138615D-04	-0.889128D-04
23	-0.225197D-05	0.720414D-06	-0.145383D-04	0.283525D-04	0.185023D-03
24	0.421852D-05	-0.101202D-05	0.526534D-04	-0.221629D-05	-0.143991D-04
25	0.184209D-04	0.122706D-04	0.927363D-04	-0.223618D-05	-0.361371D-04
26	-0.132634D-05	-0.203738D-04	-0.138588D-04	0.896101D-05	0.367442D-05
27	0.181519D-05	-0.896314D-05	-0.185105D-03	0.326639D-05	0.836986D-04
28	-0.426694D-05	0.406844D-05	0.185835D-04	-0.858847D-06	-0.184331D-03
29	0.172467D-06	-0.574730D-05	-0.332272D-04	0.364088D-05	0.300415D-04
30	-0.807979D-06	-0.586394D-06	-0.758108D-04	0.960837D-05	0.520555D-04
31	-0.455051D-05	0.219455D-05	0.742814D-04	0.335226D-06	-0.380387D-04
32	-0.220763D-04	-0.380399D-04	0.516909D-04	-0.133928D-04	-0.133760D-03
33	-0.107124D-05	-0.246344D-04	0.499350D-04	0.330750D-04	-0.555335D-05
34	0.187675D-05	0.231530D-04	-0.100239D-04	-0.643478D-04	0.385962D-04
35	-0.404898D-05	-0.117926D-04	-0.210206D-04	0.601634D-05	-0.207300D-04
36	0.183495D-04	0.331471D-04	0.163415D-04	0.575508D-04	0.164494D-03
37	0.253048D-04	0.602252D-04	0.114302D-04	-0.800052D-05	0.863031D-04
38	0.111563D-04	-0.151419D-05	-0.297707D-04	-0.804425D-04	-0.565472D-04

39	0.179917D-04	0.243581D-04	-0.139757D-04	-0.693887D-04	-0.161209D-04
40	0.256802D-04	0.107026D-04	-0.280525D-04	0.171530D-03	0.235444D-03
41	0.502402D-05	0.693432D-05	-0.702289D-05	-0.868875D-05	0.118726D-04
42	0.232788D-07	-0.103215D-05	-0.570189D-05	-0.111633D-05	-0.154911D-04
43	0.323805D-05	0.543975D-05	0.533053D-04	-0.116817D-04	0.340292D-04
44	-0.105487D-04	-0.100565D-04	-0.274712D-04	0.168310D-04	-0.139531D-04
45	0.977418D-05	-0.166934D-06	-0.129554D-04	-0.118166D-04	0.187821D-04
46	-0.170163D-05	-0.647119D-05	-0.868949D-05	-0.114455D-04	0.799172D-05
47	-0.292178D-05	0.364374D-05	-0.213831D-05	0.514473D-05	-0.123201D-05
48	0.589303D-05	0.235448D-05	-0.162767D-04	0.143252D-05	0.111748D-04
49	0.112159D-03	0.513194D-04	-0.129834D-03	0.619510D-03	0.922483D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.236671D-02				
17	0.117191D-04	0.535927D-04			
18	0.327294D-04	0.239252D-04	0.216683D-03		
19	-0.258696D-03	-0.109684D-04	-0.668058D-04	0.428129D-03	
20	0.147833D-04	0.963322D-05	0.770983D-04	-0.894284D-04	0.325910D-03
21	0.278021D-04	0.191595D-04	0.611111D-05	-0.788866D-06	-0.191935D-05
22	0.262058D-04	0.109951D-04	0.949337D-04	-0.465540D-04	0.337267D-04
23	-0.395654D-03	-0.131352D-04	-0.240152D-04	0.170732D-03	-0.427639D-04
24	0.764828D-04	0.158529D-04	0.825897D-04	-0.801002D-04	0.137807D-03
25	0.912123D-04	0.161974D-04	0.485679D-04	-0.441487D-04	0.614892D-04
26	0.103271D-05	-0.137932D-04	-0.545273D-05	0.104128D-04	-0.405561D-05
27	-0.580816D-06	-0.640728D-05	-0.749226D-04	0.432941D-04	-0.282658D-04
28	0.286619D-03	-0.470322D-05	0.271425D-04	-0.124816D-03	0.181230D-04
29	-0.283304D-04	-0.110166D-04	-0.903717D-04	0.795060D-04	-0.973308D-04
30	-0.573239D-04	-0.677420D-05	-0.410965D-04	0.471788D-04	-0.871899D-05
31	0.323333D-04	0.816422D-05	0.358984D-04	-0.418977D-04	0.279167D-04
32	0.108835D-03	-0.228812D-04	0.524078D-05	0.316471D-04	-0.305016D-04
33	-0.321568D-04	-0.174360D-04	-0.140759D-04	0.139356D-04	0.700565D-05
34	0.224092D-04	0.552165D-05	-0.130505D-04	-0.872529D-05	-0.105132D-04
35	-0.823210D-05	-0.169797D-06	-0.131753D-05	0.515774D-05	0.299601D-04
36	-0.224337D-03	0.237538D-04	-0.564786D-04	-0.515408D-04	0.690605D-04
37	-0.228884D-03	0.179726D-04	-0.214728D-04	-0.454952D-04	-0.243842D-04
38	0.114484D-03	-0.242543D-04	-0.741015D-04	0.479474D-04	-0.125565D-03
39	0.346238D-04	-0.331019D-05	-0.653280D-04	0.260706D-04	-0.106240D-03
40	-0.371341D-03	-0.158974D-03	-0.980216D-04	-0.144199D-03	-0.720131D-04
41	-0.872137D-05	0.299919D-05	-0.706400D-05	0.198991D-04	-0.690790D-05
42	0.937113D-06	-0.139326D-05	-0.572464D-05	-0.675498D-06	-0.648370D-05
43	0.330269D-04	-0.751681D-05	-0.168410D-04	-0.793097D-05	-0.249986D-04

44	-0.230492D-04	0.572833D-05	0.229510D-04	0.516780D-05	0.184937D-04
45	0.106618D-03	-0.190641D-05	-0.306664D-04	-0.207311D-04	-0.305644D-04
46	-0.394769D-05	-0.327871D-05	-0.170547D-04	0.216285D-04	0.135132D-05
47	-0.186964D-04	0.160357D-06	-0.405507D-05	-0.230160D-04	-0.213295D-04
48	-0.260958D-04	0.316840D-05	0.733805D-06	0.894408D-05	0.564993D-05
49	-0.146459D-02	-0.633727D-03	-0.448362D-03	-0.511334D-03	-0.368414D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.129936D-03				
22	0.542749D-04	0.576983D-03			
23	-0.326938D-04	-0.159914D-03	0.112080D-02		
24	0.222442D-05	0.142224D-03	-0.161463D-03	0.450047D-03	
25	0.239469D-04	0.377905D-03	-0.433349D-03	0.349649D-03	0.221541D-02
26	-0.181106D-04	-0.445118D-05	0.114587D-04	-0.842496D-06	-0.669434D-05
27	-0.129329D-05	-0.143876D-03	0.488673D-04	-0.492902D-04	-0.859664D-04
28	-0.161398D-05	0.451506D-04	-0.213854D-03	0.378580D-04	0.115045D-03
29	0.188321D-06	-0.390572D-04	0.502456D-04	-0.976574D-04	-0.648214D-04
30	0.152223D-05	-0.198344D-03	0.191850D-03	-0.164730D-03	-0.476016D-03
31	0.112574D-04	0.415366D-04	-0.863178D-04	0.525038D-04	0.108419D-03
32	-0.364628D-04	0.231088D-04	-0.828980D-04	0.341594D-05	-0.158465D-03
33	0.135111D-05	0.486261D-04	0.229420D-05	0.227422D-05	0.721917D-04
34	0.121642D-04	0.692314D-04	-0.109624D-04	-0.168443D-04	0.606437D-04
35	0.168276D-04	-0.274744D-04	-0.564957D-04	-0.221403D-05	-0.669664D-04
36	0.248477D-04	-0.103257D-04	0.258946D-03	-0.187308D-04	0.112836D-03
37	0.241154D-04	-0.498097D-04	0.933149D-04	0.542936D-06	0.123392D-03
38	0.452479D-04	0.481019D-04	0.898762D-04	-0.622862D-04	0.152355D-03
39	0.442707D-04	0.188980D-04	0.358462D-04	-0.219937D-04	0.162401D-03
40	-0.950384D-04	0.786730D-04	-0.175434D-03	0.125217D-04	0.140158D-03
41	0.760661D-05	-0.297354D-04	0.198834D-04	-0.102196D-04	-0.125895D-04
42	-0.207585D-06	-0.438471D-05	-0.769140D-05	0.541771D-06	-0.734283D-05
43	0.117270D-04	0.127488D-04	0.267620D-04	0.420378D-06	-0.697883D-04
44	-0.266873D-05	-0.160067D-04	-0.201645D-04	-0.523871D-05	0.626088D-04
45	-0.443504D-05	0.266715D-04	0.100913D-04	0.213421D-04	-0.771201D-04
46	0.120422D-04	-0.767241D-05	0.206944D-04	-0.925919D-05	-0.871505D-05
47	-0.171078D-05	-0.237850D-05	-0.207209D-05	-0.414028D-05	0.325249D-04
48	0.535357D-05	0.496145D-05	0.120425D-04	-0.433017D-06	0.136477D-04
49	-0.354630D-03	0.325277D-03	-0.577106D-03	0.238362D-05	0.686381D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

26	27	28	29	30
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26	0.108922D-03				
27	0.452022D-04	0.478098D-03			
28	-0.220102D-04	-0.126830D-03	0.896989D-03		
29	0.148495D-04	0.105154D-03	-0.117112D-03	0.391332D-03	
30	0.629654D-05	0.170702D-03	-0.146615D-03	0.166489D-03	0.890811D-03
31	-0.156354D-04	-0.290587D-03	0.213299D-03	-0.210119D-03	-0.367408D-03
32	0.440879D-04	0.248661D-04	-0.452734D-04	-0.901127D-05	0.682884D-04
33	0.182692D-04	-0.243655D-04	-0.193218D-04	0.332944D-04	-0.265727D-04
34	-0.357440D-04	0.428969D-05	-0.235563D-04	0.257731D-05	-0.601513D-04
35	0.134085D-06	-0.364698D-05	-0.147700D-04	-0.185847D-04	0.674350D-04
36	-0.636753D-04	-0.708076D-04	-0.531015D-04	0.533259D-04	-0.107256D-03
37	-0.626482D-04	-0.454324D-04	0.104030D-03	0.194897D-04	-0.775727D-04
38	0.838259D-06	0.109968D-04	0.280464D-04	0.240055D-04	-0.518714D-04
39	-0.407857D-04	0.958661D-05	0.348328D-04	0.365903D-04	-0.815334D-04
40	0.931320D-04	0.107013D-03	0.267696D-03	-0.208440D-03	-0.109803D-03
41	-0.100891D-04	0.120525D-04	0.103196D-05	-0.155498D-05	0.274415D-04
42	-0.270078D-05	0.308937D-05	0.108824D-05	0.156424D-05	0.783873D-05
43	-0.137218D-04	0.297331D-05	-0.385371D-05	0.885489D-05	-0.217740D-05
44	0.496987D-05	-0.755059D-05	0.453245D-04	-0.121172D-04	-0.946199D-06
45	0.667193D-05	0.169018D-04	-0.763999D-04	0.285277D-04	0.216170D-04
46	-0.494241D-05	0.847738D-06	0.180622D-05	0.149215D-04	0.153456D-04
47	0.836658D-05	-0.197663D-05	0.237305D-04	0.118223D-04	-0.478547D-04
48	-0.309744D-05	0.220293D-04	-0.220564D-04	0.141244D-04	0.130354D-04
49	0.362339D-03	0.418271D-03	0.106143D-02	-0.782807D-03	-0.514216D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.139746D-02				
32	-0.112405D-03	0.125322D-01			
33	0.118603D-06	0.146309D-03	0.398853D-02		
34	-0.249333D-04	0.902976D-04	-0.238800D-02	0.461810D-02	
35	0.350923D-04	-0.179560D-03	0.212783D-03	-0.343277D-03	0.238068D-02
36	0.148649D-03	-0.123129D-01	-0.209150D-03	-0.111134D-03	0.289348D-04
37	0.236563D-03	-0.122710D-01	-0.207835D-03	0.868122D-06	0.192698D-03
38	-0.120811D-03	0.486977D-03	-0.146762D-04	0.234208D-03	-0.306424D-03
39	0.479812D-04	0.702382D-03	-0.118463D-03	0.405619D-03	-0.254920D-03
40	0.151115D-03	-0.692522D-03	-0.307039D-03	0.754094D-04	-0.364260D-03
41	0.122738D-04	0.493779D-04	-0.344988D-04	0.364522D-04	0.497908D-05
42	-0.838111D-06	0.304507D-04	-0.521038D-05	0.346240D-04	-0.148367D-04
43	0.110775D-04	-0.152226D-03	-0.785636D-04	0.688433D-04	0.189544D-04
44	0.179966D-04	0.202410D-03	0.377279D-04	-0.274735D-04	-0.294922D-04

45	-0.429450D-04	-0.443300D-04	-0.139137D-04	0.747328D-05	0.578705D-05
46	0.558566D-06	-0.636342D-04	0.476499D-05	0.335765D-04	0.119065D-03
47	0.352398D-04	0.424807D-04	-0.320084D-04	0.625125D-05	-0.121785D-03
48	-0.758989D-05	0.503027D-04	-0.459061D-04	0.639100D-04	0.327536D-04
49	0.619302D-03	-0.229429D-02	-0.131211D-02	0.535667D-03	-0.182306D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.187036D-01				
37	0.120842D-01	0.166550D-01			
38	-0.369293D-03	-0.302836D-03	0.165345D-01		
39	-0.639619D-03	-0.662540D-03	0.109479D-01	0.146481D-01	
40	0.677704D-03	0.120740D-02	-0.582785D-03	-0.137329D-02	0.571091D-01
41	-0.315799D-03	0.283547D-04	0.107232D-04	0.107929D-04	0.221105D-05
42	-0.130285D-04	-0.243974D-04	-0.443312D-05	0.433731D-04	0.931755D-04
43	0.912957D-04	0.152792D-03	0.161613D-03	0.598237D-04	-0.638679D-03
44	-0.138199D-03	-0.152620D-03	-0.194721D-03	-0.849156D-04	0.541205D-03
45	-0.284578D-04	0.227326D-04	0.193498D-03	0.964595D-05	-0.236751D-03
46	0.101140D-03	0.370695D-04	0.443351D-05	-0.620342D-04	-0.308857D-03
47	-0.787216D-05	-0.944195D-05	0.123558D-03	0.230709D-03	0.348019D-03
48	-0.570950D-04	-0.734020D-04	0.210923D-04	-0.870557D-05	0.168046D-03
49	0.251219D-02	0.447880D-02	0.873288D-02	0.548855D-02	0.220900D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.335992D-03				
42	0.790526D-05	0.970946D-04			
43	-0.294221D-04	-0.151412D-04	0.199513D-02		
44	0.643131D-05	0.141242D-04	-0.115181D-02	0.144472D-02	
45	-0.330791D-04	-0.813431D-05	0.711776D-03	-0.131297D-02	0.245845D-02
46	-0.104350D-04	-0.399271D-05	0.143654D-03	-0.117853D-03	0.103781D-03
47	0.665121D-05	0.444755D-05	-0.892078D-04	0.116765D-03	-0.165416D-03
48	0.350603D-05	-0.411359D-05	0.495556D-04	-0.124765D-04	0.298009D-04
49	0.263303D-04	0.331434D-03	-0.239047D-02	0.193536D-02	-0.789827D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.569487D-03			

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47 -0.341908D-03  0.605131D-03
48  0.122881D-03 -0.124455D-03  0.391820D-03
49 -0.123075D-02  0.150497D-02  0.654095D-03  0.865155D+00

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	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.227	1.000			
3	-0.053	-0.144	1.000		
4	0.049	0.195	-0.180	1.000	
5	0.033	0.195	-0.130	0.213	1.000
6	-0.018	0.018	0.000	0.024	-0.004
7	0.023	0.017	0.023	0.046	-0.016
8	0.026	-0.014	-0.007	0.024	-0.013
9	-0.022	-0.022	-0.022	-0.019	0.044
10	0.047	-0.007	-0.005	0.010	-0.020
11	0.053	-0.022	-0.032	-0.017	0.002
12	0.005	0.022	-0.011	0.015	0.005
13	0.002	0.050	0.000	-0.009	-0.022
14	0.000	0.013	0.012	-0.007	0.058
15	-0.033	0.016	-0.015	-0.009	0.027
16	-0.019	-0.025	-0.049	0.052	0.008
17	0.005	-0.029	0.023	0.006	-0.002
18	-0.004	0.020	0.020	-0.005	0.007
19	0.011	0.028	0.005	-0.024	-0.013
20	0.012	0.020	0.013	-0.023	-0.013
21	0.027	-0.055	-0.021	0.021	-0.010
22	0.024	0.021	-0.017	0.045	0.036
23	-0.012	0.009	0.004	-0.040	-0.043
24	0.013	0.012	0.003	-0.002	0.023
25	0.075	0.011	-0.044	0.061	0.018
26	0.002	0.035	-0.013	-0.010	-0.013
27	-0.009	-0.012	0.017	0.023	-0.010
28	0.021	0.042	-0.005	0.046	0.005
29	-0.019	-0.053	0.040	-0.028	-0.069
30	-0.025	-0.030	0.016	-0.027	-0.008
31	-0.015	-0.003	0.005	0.012	0.016
32	0.012	0.008	-0.016	0.014	-0.003
33	0.009	-0.027	-0.031	0.039	0.007
34	0.025	0.023	0.047	-0.009	0.018
35	-0.058	-0.117	0.045	-0.105	-0.117
36	-0.011	-0.011	0.015	0.022	0.004

37	-0.001	-0.001	0.024	-0.028	0.012
38	0.026	0.010	0.030	0.016	0.010
39	0.025	-0.007	0.042	0.019	0.016
40	-0.014	0.011	-0.018	0.016	0.037
41	0.023	-0.023	0.020	0.027	0.015
42	-0.001	0.021	0.011	0.011	0.049
43	0.029	0.036	0.022	-0.024	0.019
44	-0.032	-0.028	-0.038	0.007	-0.033
45	-0.014	-0.020	0.037	-0.004	0.010
46	-0.018	0.032	-0.010	-0.014	0.016
47	0.039	-0.047	0.010	-0.003	-0.004
48	-0.008	0.031	-0.018	0.020	-0.004
49	-0.010	0.015	-0.016	0.020	0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.169	1.000			
8	-0.010	0.072	1.000		
9	-0.059	-0.103	0.077	1.000	
10	0.052	-0.205	0.108	-0.157	1.000
11	0.000	-0.018	0.013	0.030	-0.007
12	0.014	-0.010	0.011	0.047	-0.002
13	0.039	-0.027	-0.006	0.023	-0.003
14	0.014	-0.034	-0.035	0.019	-0.004
15	-0.023	-0.029	-0.011	0.018	0.039
16	0.025	0.023	0.038	-0.005	-0.037
17	0.011	0.026	0.004	0.003	-0.038
18	0.036	-0.007	0.004	0.008	-0.015
19	0.015	-0.026	-0.065	0.012	0.016
20	0.030	-0.021	0.021	0.006	0.012
21	-0.027	-0.020	0.018	0.006	-0.005
22	0.008	-0.032	-0.060	0.024	-0.036
23	0.006	0.000	-0.022	-0.022	0.030
24	0.017	0.017	-0.008	-0.002	-0.033
25	0.007	0.017	-0.006	0.021	-0.066
26	-0.019	0.071	0.020	-0.018	0.014
27	-0.033	0.058	-0.008	-0.052	0.050
28	0.030	-0.024	0.014	0.006	-0.027
29	0.014	0.032	-0.018	-0.034	0.019
30	0.017	0.010	0.004	-0.055	0.071
31	-0.014	-0.006	0.028	0.059	-0.046

32	0.002	0.112	-0.071	0.044	0.090
33	0.039	-0.011	-0.006	0.003	0.002
34	-0.017	0.003	0.031	-0.031	-0.008
35	-0.015	-0.031	-0.015	0.008	0.037
36	0.010	-0.046	0.036	0.019	-0.039
37	0.013	-0.014	0.032	-0.001	-0.064
38	-0.048	0.038	-0.008	-0.006	0.007
39	-0.042	0.043	0.021	-0.019	-0.002
40	-0.019	0.026	-0.002	0.015	-0.018
41	0.021	-0.005	-0.029	0.023	0.026
42	0.044	0.024	-0.003	-0.047	0.002
43	-0.019	-0.025	0.002	0.004	0.004
44	0.037	0.025	0.022	-0.016	-0.003
45	-0.031	0.006	-0.018	0.029	-0.004
46	-0.008	-0.014	-0.041	0.006	-0.048
47	-0.018	0.055	0.036	-0.007	0.032
48	-0.021	-0.010	0.012	-0.006	0.008
49	-0.030	0.029	-0.001	0.014	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.326	1.000			
13	0.078	0.341	1.000		
14	-0.130	-0.164	-0.053	1.000	
15	-0.009	-0.074	-0.161	0.269	1.000
16	0.029	0.044	0.009	-0.114	-0.211
17	0.107	0.263	0.086	-0.200	-0.040
18	0.014	0.138	0.333	-0.041	-0.179
19	-0.012	-0.056	-0.050	0.068	0.264
20	-0.002	0.010	0.058	-0.001	-0.037
21	0.048	0.196	0.047	-0.187	-0.035
22	-0.001	0.073	0.324	-0.049	-0.155
23	-0.011	0.003	-0.018	0.072	0.231
24	0.034	-0.006	0.104	-0.009	-0.028
25	0.067	0.030	0.083	-0.004	-0.032
26	-0.022	-0.227	-0.056	0.073	0.015
27	0.014	-0.048	-0.355	0.013	0.160
28	-0.024	0.016	0.026	-0.002	-0.257
29	0.001	-0.034	-0.070	0.016	0.063
30	-0.005	-0.002	-0.107	0.027	0.073
31	-0.021	0.007	0.083	0.001	-0.042



32	-0.034	-0.040	0.019	-0.010	-0.050
33	-0.003	-0.045	0.033	0.044	-0.004
34	0.005	0.040	-0.006	-0.080	0.024
35	-0.014	-0.028	-0.018	0.010	-0.018
36	0.023	0.028	0.005	0.036	0.050
37	0.033	0.054	0.004	-0.005	0.028
38	0.015	-0.001	-0.010	-0.053	-0.018
39	0.025	0.023	-0.005	-0.048	-0.006
40	0.018	0.005	-0.005	0.061	0.041
41	0.047	0.044	-0.016	-0.040	0.027
42	0.000	-0.012	-0.024	-0.010	-0.066
43	0.012	0.014	0.050	-0.022	0.032
44	-0.047	-0.031	-0.030	0.037	-0.015
45	0.034	0.000	-0.011	-0.020	0.016
46	-0.012	-0.032	-0.015	-0.041	0.014
47	-0.020	0.017	-0.004	0.018	-0.002
48	0.051	0.014	-0.034	0.006	0.024
49	0.021	0.006	-0.006	0.056	0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.033	1.000			
18	0.046	0.222	1.000		
19	-0.257	-0.072	-0.219	1.000	
20	0.017	0.073	0.290	-0.239	1.000
21	0.050	0.230	0.036	-0.003	-0.009
22	0.022	0.063	0.268	-0.094	0.078
23	-0.243	-0.054	-0.049	0.246	-0.071
24	0.074	0.102	0.264	-0.182	0.360
25	0.040	0.047	0.070	-0.045	0.072
26	0.002	-0.181	-0.035	0.048	-0.022
27	-0.001	-0.040	-0.233	0.096	-0.072
28	0.197	-0.021	0.062	-0.201	0.034
29	-0.029	-0.076	-0.310	0.194	-0.273
30	-0.039	-0.031	-0.094	0.076	-0.016
31	0.018	0.030	0.065	-0.054	0.041
32	0.020	-0.028	0.003	0.014	-0.015
33	-0.010	-0.038	-0.015	0.011	0.006
34	0.007	0.011	-0.013	-0.006	-0.009
35	-0.003	0.000	-0.002	0.005	0.034
36	-0.034	0.024	-0.028	-0.018	0.028

37	-0.036	0.019	-0.011	-0.017	-0.010
38	0.018	-0.026	-0.039	0.018	-0.054
39	0.006	-0.004	-0.037	0.010	-0.049
40	-0.032	-0.091	-0.028	-0.029	-0.017
41	-0.010	0.022	-0.026	0.052	-0.021
42	0.002	-0.019	-0.039	-0.003	-0.036
43	0.015	-0.023	-0.026	-0.009	-0.031
44	-0.012	0.021	0.041	0.007	0.027
45	0.044	-0.005	-0.042	-0.020	-0.034
46	-0.003	-0.019	-0.049	0.044	0.003
47	-0.016	0.001	-0.011	-0.045	-0.048
48	-0.027	0.022	0.003	0.022	0.016
49	-0.032	-0.093	-0.033	-0.027	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	1.000				
22	0.198	1.000			
23	-0.086	-0.199	1.000		
24	0.009	0.279	-0.227	1.000	
25	0.045	0.334	-0.275	0.350	1.000
26	-0.152	-0.018	0.033	-0.004	-0.014
27	-0.005	-0.274	0.067	-0.106	-0.084
28	-0.005	0.063	-0.213	0.060	0.082
29	0.001	-0.082	0.076	-0.233	-0.070
30	0.004	-0.277	0.192	-0.260	-0.339
31	0.026	0.046	-0.069	0.066	0.062
32	-0.029	0.009	-0.022	0.001	-0.030
33	0.002	0.032	0.001	0.002	0.024
34	0.016	0.042	-0.005	-0.012	0.019
35	0.030	-0.023	-0.035	-0.002	-0.029
36	0.016	-0.003	0.057	-0.006	0.018
37	0.016	-0.016	0.022	0.000	0.020
38	0.031	0.016	0.021	-0.023	0.025
39	0.032	0.007	0.009	-0.009	0.029
40	-0.035	0.014	-0.022	0.002	0.012
41	0.036	-0.068	0.032	-0.026	-0.015
42	-0.002	-0.019	-0.023	0.003	-0.016
43	0.023	0.012	0.018	0.000	-0.033
44	-0.006	-0.018	-0.016	-0.006	0.035
45	-0.008	0.022	0.006	0.020	-0.033
46	0.044	-0.013	0.026	-0.018	-0.008

47	-0.006	-0.004	-0.003	-0.008	0.028
48	0.024	0.010	0.018	-0.001	0.015
49	-0.033	0.015	-0.019	0.000	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.198	1.000			
28	-0.070	-0.194	1.000		
29	0.072	0.243	-0.198	1.000	
30	0.020	0.262	-0.164	0.282	1.000
31	-0.040	-0.356	0.191	-0.284	-0.329
32	0.038	0.010	-0.014	-0.004	0.020
33	0.028	-0.018	-0.010	0.027	-0.014
34	-0.050	0.003	-0.012	0.002	-0.030
35	0.000	-0.003	-0.010	-0.019	0.046
36	-0.045	-0.024	-0.013	0.020	-0.026
37	-0.047	-0.016	0.027	0.008	-0.020
38	0.001	0.004	0.007	0.009	-0.014
39	-0.032	0.004	0.010	0.015	-0.023
40	0.037	0.020	0.037	-0.044	-0.015
41	-0.053	0.030	0.002	-0.004	0.050
42	-0.026	0.014	0.004	0.008	0.027
43	-0.029	0.003	-0.003	0.010	-0.002
44	0.013	-0.009	0.040	-0.016	-0.001
45	0.013	0.016	-0.051	0.029	0.015
46	-0.020	0.002	0.003	0.032	0.022
47	0.033	-0.004	0.032	0.024	-0.065
48	-0.015	0.051	-0.037	0.036	0.022
49	0.037	0.021	0.038	-0.043	-0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.027	1.000			
33	0.000	0.021	1.000		
34	-0.010	0.012	-0.556	1.000	
35	0.019	-0.033	0.069	-0.104	1.000
36	0.029	-0.804	-0.024	-0.012	0.004
37	0.049	-0.849	-0.025	0.000	0.031

38	-0.025	0.034	-0.002	0.027	-0.049
39	0.011	0.052	-0.015	0.049	-0.043
40	0.017	-0.026	-0.020	0.005	-0.031
41	0.018	0.024	-0.030	0.029	0.006
42	-0.002	0.028	-0.008	0.052	-0.031
43	0.007	-0.030	-0.028	0.023	0.009
44	0.013	0.048	0.016	-0.011	-0.016
45	-0.023	-0.008	-0.004	0.002	0.002
46	0.001	-0.024	0.003	0.021	0.102
47	0.038	0.015	-0.021	0.004	-0.101
48	-0.010	0.023	-0.037	0.048	0.034
49	0.018	-0.022	-0.022	0.008	-0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.685	1.000			
38	-0.021	-0.018	1.000		
39	-0.039	-0.042	0.703	1.000	
40	0.021	0.039	-0.019	-0.047	1.000
41	-0.126	0.012	0.005	0.005	0.001
42	-0.010	-0.019	-0.003	0.036	0.040
43	0.015	0.027	0.028	0.011	-0.060
44	-0.027	-0.031	-0.040	-0.018	0.060
45	-0.004	0.004	0.030	0.002	-0.020
46	0.031	0.012	0.001	-0.021	-0.054
47	-0.002	-0.003	0.039	0.077	0.059
48	-0.021	-0.029	0.008	-0.004	0.036
49	0.020	0.037	0.073	0.049	0.994

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.044	1.000			
43	-0.036	-0.034	1.000		
44	0.009	0.038	-0.678	1.000	
45	-0.036	-0.017	0.321	-0.697	1.000
46	-0.024	-0.017	0.135	-0.130	0.088
47	0.015	0.018	-0.081	0.125	-0.136
48	0.010	-0.021	0.056	-0.017	0.030

49	0.002	0.036	-0.058	0.055	-0.017
----	-------	-------	--------	-------	--------

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	46	47	48	49
46	1.000			
47	-0.582	1.000		
48	0.260	-0.256	1.000	
49	-0.055	0.066	0.036	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.039	36
200	1.015	4
300	1.014	42
400	1.008	42
500	1.005	32
600	1.008	32
700	1.004	37
800	1.003	40
900	1.006	41
1000	1.004	41

This is the interaction between latent profile categories and job control on worsening distress

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122

186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.950	0.950	0.950	0.950	
KES15	0.919	0.919	0.919	0.919	0.919
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.913
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.913			
BULLY15	0.912	0.913		
PRESS15	0.913	0.912	0.913	
DUTIES15	0.913	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16  
 Category 1 0.877 5135.000  
 Category 2 0.123 720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2 58.000	0.310 0.214	0.820 -1.328	0.000 1.000	68.97% 31.03%	0.000 0.000	0.000 1.000	0.000
CLU3 58.000	0.448 0.247	0.208 -1.957	0.000 1.000	55.17% 44.83%	0.000 1.000	0.000 1.000	0.000
PHY15 5563.000	0.000 0.536	0.526 0.021	-0.865 3.135	32.48% 0.07%	-0.865 0.135	0.135 0.135	0.135
KES15 5382.000	0.000 0.095	0.475 -0.842	-0.374 0.626	22.78% 6.60%	-0.374 -0.041	-0.207 0.293	-0.041
CHOICE15 5345.000	3.221 1.097	-0.400 -0.356	1.000 5.000	7.67% 8.62%	2.000 4.000	3.000 4.000	3.000
BULLY15 5344.000	0.000 0.216	3.522 14.164	-0.153 3.847	88.29% 0.09%	-0.153 -0.153	-0.153 -0.153	-0.153
PRESS15 5345.000	0.000 1.001	0.267 -0.357	-1.445 2.555	19.70% 2.75%	-0.445 0.555	-0.445 0.555	-0.445
DUTIES15 5347.000	0.000 0.828	-1.296 1.939	-3.149 0.851	2.34% 39.74%	-0.149 -0.149	-0.149 0.851	-0.149

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
 OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49



MODEL RESULTS

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
					Lower 2.5%	Upper 2.5%	
Within Level							
KESCAT16	ON						
PHY15		0.137	0.033	0.000	0.076	0.206	*
BULLY15		0.113	0.048	0.008	0.012	0.203	*
DUTIES15		-0.082	0.027	0.002	-0.134	-0.028	*
PRESS15		-0.031	0.025	0.096	-0.083	0.016	
KES15		1.618	0.085	0.000	1.453	1.790	*
KES15	WITH						
PHY15		0.055	0.003	0.000	0.048	0.061	*
CHOICE15		-0.038	0.004	0.000	-0.047	-0.029	*
BULLY15		0.022	0.002	0.000	0.018	0.026	*
PRESS15		0.053	0.004	0.000	0.044	0.062	*
DUTIES15		-0.051	0.004	0.000	-0.058	-0.043	*
PHY15	WITH						
CHOICE15		-0.087	0.010	0.000	-0.107	-0.067	*
BULLY15		0.025	0.005	0.000	0.016	0.034	*
PRESS15		0.063	0.010	0.000	0.043	0.082	*
DUTIES15		-0.056	0.009	0.000	-0.075	-0.039	*
CHOICE15	WITH						
BULLY15		-0.049	0.007	0.000	-0.062	-0.037	*
PRESS15		-0.067	0.014	0.000	-0.096	-0.040	*
DUTIES15		0.155	0.013	0.000	0.128	0.181	*
BULLY15	WITH						
PRESS15		0.091	0.007	0.000	0.078	0.103	*
DUTIES15		-0.059	0.006	0.000	-0.070	-0.047	*
PRESS15	WITH						
DUTIES15		-0.156	0.013	0.000	-0.182	-0.132	*
Means							
PHY15		0.001	0.010	0.457	-0.017	0.021	
KES15		0.003	0.004	0.230	-0.006	0.012	

BULLY15	0.001	0.006	0.429	-0.011	0.014	
PRESS15	0.002	0.014	0.451	-0.024	0.031	
DUTIES15	-0.004	0.013	0.371	-0.028	0.021	
Variances						
PHY15	0.536	0.010	0.000	0.517	0.556	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.057	0.021	0.000	1.017	1.099	*
BULLY15	0.216	0.004	0.000	0.208	0.224	*
PRESS15	1.002	0.019	0.000	0.965	1.041	*
DUTIES15	0.828	0.016	0.000	0.800	0.864	*
Between Level						
S1 ON						
CLU2	0.028	0.097	0.376	-0.159	0.228	
CLU3	0.108	0.092	0.127	-0.072	0.289	
KESCAT16 ON						
CLU2	0.058	0.093	0.276	-0.129	0.244	
CLU3	0.056	0.091	0.259	-0.118	0.235	
CHOICE15	-0.137	0.169	0.215	-0.465	0.200	
CHOICE15 WITH						
CLU2	0.021	0.017	0.085	-0.009	0.057	
CLU3	-0.019	0.019	0.134	-0.061	0.016	
CLU2 WITH						
CLU3	-0.138	0.039	0.000	-0.226	-0.076	*
Means						
CLU2	0.311	0.063	0.000	0.192	0.432	*
CLU3	0.446	0.069	0.000	0.308	0.581	*
CHOICE15	3.306	0.037	0.000	3.237	3.379	*
Intercepts						
S1	-0.121	0.079	0.064	-0.273	0.039	
Thresholds						
KESCAT16\$1	0.974	0.566	0.037	-0.107	2.110	
Variances						
CLU2	0.229	0.045	0.000	0.162	0.341	*
CLU3	0.262	0.051	0.000	0.188	0.389	*

CHOICE15	0.057	0.013	0.000	0.037	0.089	*
Residual Variances						
KESCAT16	0.010	0.009	0.000	0.001	0.033	*
S1	0.008	0.010	0.000	0.001	0.039	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON						
CHOICE15	-0.054	0.027	0.020	-0.105	-0.002	*
KESCAT16 ON						
PHY15	0.087	0.020	0.000	0.047	0.128	*
BULLY15	0.046	0.019	0.008	0.007	0.082	*
DUTIES15	-0.064	0.021	0.002	-0.105	-0.022	*
PRESS15	-0.028	0.022	0.094	-0.071	0.015	
KES15	0.432	0.019	0.000	0.395	0.469	*
KES15 WITH						
PHY15	0.241	0.013	0.000	0.215	0.265	*
CHOICE15	-0.118	0.014	0.000	-0.146	-0.093	*
BULLY15	0.155	0.013	0.000	0.128	0.180	*
PRESS15	0.172	0.014	0.000	0.145	0.198	*
DUTIES15	-0.180	0.013	0.000	-0.207	-0.154	*
PHY15 WITH						
CHOICE15	-0.116	0.013	0.000	-0.141	-0.090	*
BULLY15	0.072	0.013	0.000	0.046	0.099	*
PRESS15	0.086	0.014	0.000	0.059	0.112	*
DUTIES15	-0.085	0.014	0.000	-0.111	-0.059	*
CHOICE15 WITH						
BULLY15	-0.103	0.013	0.000	-0.129	-0.077	*
PRESS15	-0.065	0.014	0.000	-0.092	-0.039	*
DUTIES15	0.166	0.013	0.000	0.138	0.192	*

BULLY15 WITH						
PRESS15	0.195	0.013	0.000	0.169	0.220	*
DUTIES15	-0.139	0.013	0.000	-0.164	-0.112	*
PRESS15 WITH						
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
Means						
PHY15	0.002	0.013	0.440	-0.023	0.028	
KES15	0.010	0.014	0.236	-0.017	0.037	
BULLY15	0.003	0.014	0.424	-0.024	0.030	
PRESS15	0.002	0.014	0.449	-0.024	0.030	
DUTIES15	-0.004	0.014	0.374	-0.031	0.024	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	0.122	0.396	0.376	-0.756	0.811	
CLU3	0.498	0.381	0.127	-0.324	1.106	
KESCAT16 ON						
CLU2	0.223	0.342	0.276	-0.490	0.806	
CLU3	0.237	0.367	0.259	-0.495	0.937	
CHOICE15	-0.268	0.309	0.215	-0.819	0.388	
CHOICE15 WITH						
CLU2	0.194	0.136	0.085	-0.074	0.454	
CLU3	-0.159	0.142	0.134	-0.433	0.137	
CLU2 WITH						
CLU3	-0.564	0.091	0.000	-0.714	-0.356	*
Means						
CLU2	0.647	0.145	0.000	0.381	0.943	*
CLU3	0.872	0.158	0.000	0.575	1.181	*

CHOICE15	13.830	1.496	0.000	11.104	17.068	*
Intercepts						
S1	-1.079	0.711	0.064	-2.480	0.316	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.687	0.219	0.000	0.135	0.968	*
S1	0.690	0.251	0.000	0.094	0.987	*

#### R-SQUARE

##### Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.256	0.018	0.000	0.222	0.292

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.313	0.219	0.000	0.032	0.865

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.310	0.251	0.000	0.013	0.906

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

0

0

0

0

0

0

0

THETA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	0	
DUTIES15	0	0

# ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0	1	2	0	3

# ALPHA

PRESS15	DUTIES15
<hr/>	<hr/>
4	5

# BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	6	7	0	8
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	9	10

PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI		
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u>          </u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>          </u>
49

NU			
KESCAT16	CLU2	CLU3	CHOICE15
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
0	0	0	0

LAMBDA				
S1	KESCAT16	CLU2	CLU3	CHOICE15



KESCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
CHOICE15	0	0	0	0	0

#### THETA

	KESCAT16	CLU2	CLU3	CHOICE15
KESCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
CHOICE15	0	0	0	0

#### ALPHA

S1	KESCAT16	CLU2	CLU3	CHOICE15
32	0	33	34	35

#### BETA

S1	KESCAT16	CLU2	CLU3	CHOICE15
S1	0	36	37	0
KESCAT16	0	38	39	40
CLU2	0	0	0	0
CLU3	0	0	0	0
CHOICE15	0	0	0	0

#### PSI

S1	KESCAT16	CLU2	CLU3	CHOICE15
S1	41			
KESCAT16	0	42		
CLU2	0	0	43	
CLU3	0	0	44	45
CHOICE15	0	0	46	47
				48

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<hr/>
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
0.000		0.000	0.000	0.000	0.000

ALPHA		
PRESS15		DUTIES15
0.000		0.000

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15

KESCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.268			
KES15	0.000	0.000	0.048		
CHOICE15	0.000	0.000	0.000	0.549	
BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	<u>0.501</u>	<u></u>
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>1.091</u>

NU				
	KESCAT16	CLU2	CLU3	CHOICE15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA					
	S1	KESCAT16	CLU2	CLU3	CHOICE15
KESCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	1.000

THETA				
	KESCAT16	CLU2	CLU3	CHOICE15
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
CHOICE15	0.000	0.000	0.000	0.000

ALPHA					
	S1	KESCAT16	CLU2	CLU3	CHOICE15
	0.000	0.000	0.403	0.469	3.221

BETA					
	S1	KESCAT16	CLU2	CLU3	CHOICE15
S1	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000

PSI					
	S1	KESCAT16	CLU2	CLU3	CHOICE15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.120		
CLU3	0.000	0.000	0.000	0.125	
CHOICE15	0.000	0.000	0.000	0.000	0.549

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity

Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.969683D-04				
2	0.101507D-04	0.195514D-04			
3	0.517332D-05	0.484801D-05	0.402639D-04		
4	0.116752D-04	0.997968D-05	0.192417D-04	0.194416D-03	
5	-0.108384D-04	-0.988904D-05	-0.131644D-04	-0.347463D-04	0.156647D-03
6	0.108873D-04	-0.351137D-05	0.236419D-05	-0.572872D-05	0.461743D-05
7	0.186539D-04	0.141618D-04	-0.662653D-05	0.231642D-04	-0.730729D-05
8	0.502288D-05	-0.146286D-05	-0.125022D-05	0.193941D-04	-0.416326D-05
9	0.584648D-05	0.342857D-05	-0.145611D-06	-0.602954D-05	-0.325569D-05
10	0.103322D-05	0.526336D-05	0.350281D-05	-0.496452D-05	-0.601131D-05
11	0.246770D-05	0.654574D-06	-0.348170D-05	0.379041D-05	-0.245664D-05
12	-0.669245D-06	0.260853D-06	-0.101079D-05	0.635736D-06	-0.111236D-06
13	0.750459D-07	0.210770D-06	0.133455D-06	0.701401D-06	0.459496D-06
14	-0.481444D-06	-0.215022D-05	-0.194003D-05	-0.483577D-05	0.269705D-05
15	0.689860D-06	-0.884653D-08	-0.105570D-05	-0.235513D-05	0.235481D-06
16	-0.525984D-05	0.759714D-06	0.544935D-05	0.137307D-04	-0.376915D-05
17	-0.113666D-05	-0.557369D-06	-0.430115D-06	-0.143101D-05	0.799933D-07
18	-0.182309D-06	0.354978D-08	-0.827602D-07	-0.156312D-05	0.898032D-06
19	-0.355471D-06	-0.153800D-05	0.361187D-06	-0.378038D-05	-0.251170D-06
20	0.124340D-05	0.189249D-06	0.834352D-06	0.743671D-06	-0.235625D-06
21	-0.125275D-05	0.175028D-05	-0.323940D-06	0.424165D-05	-0.407334D-06
22	-0.628286D-06	0.141515D-06	-0.501657D-06	0.194535D-08	0.797607D-06
23	0.137437D-05	0.743842D-06	-0.192525D-05	-0.198723D-06	0.722593D-07
24	-0.884258D-06	0.236872D-06	0.150557D-06	-0.215508D-05	0.100814D-05
25	0.652969D-05	0.299699D-05	0.352215D-06	-0.150558D-04	0.516359D-06
26	0.316562D-05	-0.384311D-07	0.115222D-05	-0.168899D-05	0.101929D-05
27	-0.209646D-06	0.435547D-06	0.225298D-06	-0.341794D-05	0.871329D-06
28	-0.241960D-05	-0.111530D-05	0.277175D-05	0.413086D-05	-0.546070D-05

29	-0.883986D-06	0.368993D-07	0.659788D-06	-0.391471D-06	-0.108660D-05
30	0.340472D-06	0.616220D-07	0.412128D-05	-0.680461D-05	0.554626D-05
31	-0.467399D-05	-0.888773D-06	-0.166481D-06	0.119529D-04	-0.943006D-06
32	0.342292D-04	-0.363295D-07	0.161764D-04	-0.122612D-06	0.264218D-05
33	-0.170484D-04	-0.232655D-05	-0.509618D-05	0.359943D-04	-0.203843D-04
34	0.169124D-04	0.406361D-05	0.130143D-04	-0.400865D-05	0.115381D-04
35	-0.403438D-05	-0.672000D-05	-0.137898D-04	-0.160240D-04	0.348437D-04
36	-0.235739D-04	0.981973D-05	-0.196408D-04	-0.212384D-05	0.565973D-05
37	-0.319249D-04	0.524089D-05	-0.163223D-04	-0.333887D-05	0.913847D-06
38	-0.887349D-05	0.654791D-05	0.145650D-04	-0.153812D-04	-0.279186D-04
39	-0.158023D-05	0.412924D-05	0.379830D-04	-0.791264D-05	-0.470657D-04
40	0.320176D-05	-0.627436D-05	0.132653D-04	0.529521D-04	0.304046D-05
41	-0.408073D-05	-0.319739D-05	-0.133152D-05	0.154925D-05	0.276391D-07
42	-0.131258D-05	0.355257D-06	0.570623D-06	-0.729379D-06	-0.451979D-06
43	-0.625936D-05	-0.836751D-05	-0.284423D-05	-0.671106D-05	-0.213769D-04
44	0.275957D-05	0.267779D-05	0.252653D-05	0.378670D-05	0.180156D-04
45	0.115039D-05	-0.120128D-05	0.204055D-05	-0.159286D-04	-0.240060D-04
46	0.382556D-05	-0.218569D-05	0.107952D-05	0.233263D-05	-0.116197D-04
47	0.278912D-05	0.707016D-06	0.467495D-05	0.806507D-05	0.247254D-05
48	0.319916D-05	0.209306D-05	0.301401D-05	0.208081D-05	-0.174619D-05
49	0.129610D-04	-0.177437D-04	0.620312D-04	0.155080D-03	-0.326076D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.106075D-02				
7	-0.360245D-03	0.716738D-02			
8	-0.707406D-04	-0.422030D-03	0.233243D-02		
9	0.250961D-04	-0.400656D-03	-0.156315D-03	0.627285D-03	
10	0.577186D-04	0.371905D-04	0.103857D-03	0.805787D-04	0.737086D-03
11	-0.132146D-04	0.260247D-04	0.502461D-05	0.573842D-05	-0.140075D-04
12	-0.378318D-05	0.284861D-05	0.652542D-05	-0.266652D-05	-0.386623D-05
13	0.349259D-06	-0.213322D-05	0.664987D-06	-0.167415D-05	0.278650D-06
14	0.159854D-04	-0.135144D-05	-0.253831D-05	-0.635898D-06	0.637059D-05
15	0.135911D-05	-0.366565D-06	0.370434D-05	0.714292D-05	-0.190941D-05
16	0.297027D-05	0.118591D-03	-0.410322D-04	-0.849842D-05	-0.616960D-05
17	0.101216D-06	0.344361D-05	0.958980D-05	-0.262938D-06	-0.260407D-05
18	0.634173D-07	-0.235051D-05	0.261231D-05	0.124165D-05	0.254635D-06
19	0.444436D-05	0.599122D-05	0.428320D-05	-0.289850D-05	-0.397177D-05
20	0.185071D-05	0.106441D-05	0.594828D-05	-0.160776D-05	0.155166D-05
21	0.383151D-05	-0.708352D-05	-0.310172D-05	0.381481D-05	-0.180899D-04
22	-0.590207D-05	-0.520866D-05	0.486799D-05	0.622546D-05	-0.793275D-06
23	-0.502251D-05	0.103542D-04	0.224568D-04	0.443715D-05	-0.619884D-05



24	0.128143D-04	-0.181962D-05	-0.388849D-05	0.524104D-05	-0.279437D-06
25	0.216513D-04	-0.422708D-04	-0.958142D-05	-0.205173D-04	-0.278059D-05
26	-0.331013D-05	0.453217D-05	-0.246698D-04	0.209170D-05	0.237434D-05
27	0.210155D-05	0.304625D-05	0.139201D-05	0.504641D-05	0.171070D-05
28	-0.556611D-05	0.322856D-04	-0.313069D-05	-0.327268D-05	-0.162592D-05
29	0.459216D-05	0.951098D-06	-0.801930D-05	-0.680543D-05	0.374658D-06
30	-0.127119D-04	-0.648075D-05	0.368979D-05	-0.109544D-05	-0.744213D-05
31	0.368180D-05	0.240033D-04	0.674158D-05	0.898798D-05	0.362082D-05
32	0.236849D-03	0.128337D-03	-0.292655D-04	-0.708918D-04	-0.675523D-04
33	-0.110389D-04	-0.139490D-04	0.505419D-04	-0.322109D-04	0.368997D-04
34	-0.380184D-04	0.144675D-03	-0.435125D-04	0.144983D-04	-0.110491D-03
35	-0.335663D-04	-0.132225D-04	0.395320D-04	0.237783D-04	-0.227530D-04
36	-0.116929D-03	0.225871D-03	-0.198177D-04	0.116000D-03	0.836879D-05
37	-0.180496D-03	0.810538D-05	0.678205D-04	0.135354D-03	0.525207D-04
38	0.106675D-03	0.103656D-04	-0.285138D-04	0.711727D-04	-0.576522D-04
39	0.123225D-03	-0.162036D-03	-0.884857D-04	0.473562D-04	-0.432656D-04
40	-0.757740D-05	-0.339139D-03	0.253683D-03	0.221930D-03	-0.159396D-03
41	0.230158D-04	0.603975D-04	0.148719D-04	-0.113473D-04	-0.889287D-06
42	0.298890D-05	0.643848D-04	0.192840D-04	-0.187335D-06	0.357201D-05
43	-0.174786D-04	-0.140614D-03	0.779830D-04	-0.410048D-04	0.203053D-04
44	0.130609D-04	0.967288D-04	-0.128405D-03	0.264812D-04	-0.285803D-04
45	-0.375719D-04	-0.565733D-05	0.875618D-04	-0.461976D-05	0.143073D-04
46	-0.426413D-05	0.253725D-06	0.182800D-04	0.203658D-05	-0.192431D-04
47	0.167344D-04	0.633756D-04	-0.405083D-04	0.164295D-05	-0.106409D-04
48	-0.127278D-04	-0.491833D-04	-0.113841D-04	0.146720D-05	-0.799587D-05
49	0.115933D-03	-0.372558D-04	0.806432D-03	0.729131D-03	-0.633269D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.998433D-04				
12	0.929773D-05	0.993327D-05			
13	0.106812D-05	0.201872D-05	0.357053D-05		
14	-0.115751D-04	-0.454667D-05	-0.934892D-06	0.103843D-03	
15	-0.133194D-05	-0.183712D-05	-0.155204D-05	0.122254D-04	0.200766D-04
16	-0.226151D-06	0.413479D-06	0.323548D-05	-0.352697D-04	-0.198768D-04
17	0.288370D-05	0.259795D-05	0.647290D-06	-0.416578D-05	-0.754756D-06
18	0.170191D-06	0.611966D-06	0.776265D-06	0.189188D-06	-0.110633D-05
19	-0.442332D-06	0.156584D-06	-0.640044D-06	0.876227D-05	0.477758D-05
20	-0.694433D-06	-0.143577D-07	-0.1279478D-06	-0.160358D-05	-0.731447D-06
21	0.928293D-05	0.542002D-05	0.856912D-06	-0.124182D-05	-0.265040D-06
22	0.836469D-06	0.191226D-05	0.212846D-05	-0.254326D-05	-0.246835D-05
23	-0.131746D-05	-0.810406D-06	0.143555D-06	0.105827D-04	0.883625D-05

24	0.479428D-06	0.119284D-05	0.769856D-06	-0.405597D-05	-0.886689D-06
25	0.742950D-05	0.194180D-05	0.228846D-05	0.264178D-05	-0.779914D-06
26	-0.792104D-05	-0.587760D-05	-0.121956D-05	0.159524D-04	0.294164D-05
27	-0.247215D-05	-0.131482D-05	-0.173211D-05	0.197994D-05	0.306490D-05
28	0.892087D-05	0.251521D-05	0.105999D-05	-0.232939D-04	-0.122247D-04
29	-0.191257D-05	-0.531264D-06	-0.165880D-06	0.234577D-05	0.461162D-06
30	-0.845547D-05	-0.150200D-05	-0.861042D-06	0.142958D-05	-0.716923D-06
31	0.126970D-04	0.258451D-05	0.647505D-06	-0.763915D-05	-0.247296D-05
32	0.251884D-05	-0.297279D-05	-0.129668D-06	-0.160183D-04	-0.920260D-05
33	0.190520D-04	0.153295D-05	-0.290333D-05	0.787334D-05	0.754076D-05
34	-0.989084D-05	0.202345D-05	0.266169D-05	-0.105748D-04	0.110303D-05
35	0.475676D-05	-0.163468D-05	-0.485674D-07	0.144841D-04	0.482495D-05
36	0.201177D-04	0.259841D-05	-0.445359D-06	0.460108D-04	0.230823D-04
37	-0.304138D-05	0.378278D-05	0.411678D-05	0.104153D-04	0.412289D-05
38	0.144637D-04	-0.116018D-05	0.240772D-05	-0.145559D-04	-0.137051D-08
39	0.738417D-05	-0.382487D-05	0.652446D-06	0.585642D-05	-0.141901D-04
40	0.430768D-04	0.115969D-04	0.107854D-04	0.100107D-04	-0.187507D-04
41	0.577771D-05	0.953183D-06	-0.205757D-06	0.159515D-05	-0.102301D-06
42	0.365307D-06	0.755159D-06	0.104856D-05	0.108582D-05	-0.372314D-06
43	0.112333D-04	-0.331795D-05	0.212810D-05	-0.886572D-05	-0.303691D-05
44	-0.129302D-04	0.325507D-05	-0.217503D-05	0.225489D-06	-0.127950D-05
45	0.825942D-05	-0.981050D-05	0.119069D-06	0.422288D-05	0.146205D-05
46	0.411890D-05	0.842651D-07	0.993029D-06	0.732548D-05	0.301514D-05
47	-0.505508D-05	-0.212271D-06	-0.531026D-06	-0.371399D-05	-0.320760D-05
48	0.453338D-05	-0.971332D-06	0.427675D-06	-0.185055D-05	-0.921348D-06
49	0.148814D-03	0.364621D-04	0.342369D-04	0.333002D-04	-0.710585D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.431477D-03				
17	0.280742D-05	0.217828D-04			
18	0.113430D-05	0.247903D-05	0.380656D-05		
19	-0.242771D-04	-0.321092D-05	-0.172923D-05	0.430025D-04	
20	0.148181D-05	0.196155D-05	0.143796D-05	-0.263353D-05	0.172650D-04
21	0.223212D-05	0.936642D-05	0.991121D-06	0.185259D-06	-0.806080D-06
22	0.195110D-05	0.171331D-05	0.162367D-05	0.170674D-06	0.135586D-06
23	-0.317163D-04	-0.298016D-05	-0.922380D-06	0.189201D-04	-0.223054D-05
24	0.527532D-05	0.298687D-05	0.264405D-05	-0.449061D-05	0.705171D-05
25	0.424556D-05	0.346026D-05	0.347813D-05	-0.257114D-05	0.425387D-05
26	-0.115319D-04	-0.690154D-05	-0.579155D-06	0.983662D-06	-0.103113D-05
27	-0.782342D-05	-0.181503D-05	-0.941172D-06	0.991572D-06	0.560715D-06
28	0.664539D-04	0.318516D-05	0.354074D-06	-0.171213D-04	0.585033D-06

29	-0.635458D-05	-0.258849D-05	-0.232629D-05	0.652840D-05	-0.379896D-05
30	-0.927380D-05	-0.325149D-05	-0.759044D-06	0.572048D-05	0.133111D-06
31	0.143539D-04	0.323097D-05	0.255444D-06	-0.444332D-05	0.432834D-06
32	0.166354D-04	0.131458D-04	0.366889D-05	0.211758D-05	0.147355D-04
33	-0.253384D-05	-0.167655D-04	-0.284564D-05	0.172143D-04	-0.130512D-05
34	-0.235044D-04	0.208640D-05	-0.484900D-06	-0.866705D-05	-0.280555D-05
35	0.122521D-04	0.133900D-05	0.137814D-05	0.840864D-05	-0.294576D-05
36	-0.218381D-04	-0.185384D-04	-0.743495D-05	0.134987D-04	-0.113446D-04
37	0.192964D-06	-0.921952D-05	-0.463027D-06	-0.142380D-04	-0.245238D-04
38	-0.871656D-04	0.979972D-05	-0.956445D-07	-0.626017D-05	0.261412D-05
39	0.170024D-04	0.123211D-04	0.272890D-05	-0.738297D-05	-0.783691D-05
40	-0.106611D-03	0.251541D-05	0.115886D-04	0.237741D-04	0.891326D-05
41	-0.417976D-05	0.180166D-05	0.638700D-06	0.668224D-07	0.752219D-06
42	-0.170631D-05	0.551092D-06	-0.108017D-06	0.223396D-05	0.244161D-06
43	0.511094D-04	0.654078D-05	0.109905D-05	-0.349122D-05	-0.600666D-05
44	-0.285008D-04	-0.241104D-05	-0.472942D-06	0.293613D-05	0.430350D-05
45	0.295195D-04	-0.682894D-05	0.216878D-06	0.105497D-05	-0.772164D-05
46	-0.370117D-05	0.396346D-05	0.170469D-06	0.162983D-05	-0.150317D-05
47	0.483095D-05	-0.190212D-05	0.314549D-06	0.275377D-06	0.903271D-06
48	0.720223D-05	-0.626874D-06	-0.248297D-06	0.518325D-05	-0.729781D-07
49	-0.360270D-03	0.174046D-04	0.359626D-04	0.691986D-04	0.274247D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.993503D-04				
22	0.117794D-04	0.194669D-04			
23	-0.207547D-04	-0.813245D-05	0.192093D-03		
24	0.541645D-05	0.696787D-05	-0.101679D-04	0.425820D-04	
25	0.187070D-04	0.193441D-04	-0.236458D-04	0.364731D-04	0.379060D-03
26	-0.177531D-04	-0.260667D-05	0.134061D-04	-0.872371D-06	-0.119786D-04
27	-0.358660D-05	-0.337761D-05	0.286949D-05	-0.214818D-05	-0.861493D-06
28	0.554153D-05	-0.318553D-06	-0.370280D-04	0.300631D-05	0.599530D-05
29	-0.273456D-05	-0.176929D-05	0.682504D-05	-0.788203D-05	-0.505367D-05
30	-0.130093D-04	-0.960141D-05	0.312493D-04	-0.146206D-04	-0.652391D-04
31	0.897190D-05	0.463578D-05	-0.155132D-04	0.503774D-05	0.105840D-04
32	-0.196366D-04	-0.111930D-04	0.386882D-05	0.831492D-05	0.192522D-04
33	-0.186130D-04	-0.170061D-05	-0.207311D-04	0.191371D-05	-0.829574D-05
34	0.452735D-05	0.526220D-05	0.351379D-05	-0.138497D-04	0.221135D-04
35	0.140954D-04	0.115093D-05	0.102024D-04	-0.678340D-05	0.818567D-05
36	0.208148D-04	0.972197D-05	-0.122502D-04	0.604261D-05	-0.587531D-04
37	0.119717D-04	0.223763D-04	0.269554D-05	-0.239240D-05	0.380635D-04
38	-0.138054D-04	0.635844D-05	0.197415D-05	-0.227247D-05	0.424079D-04

39	0.969717D-05	0.146981D-05	-0.165754D-04	0.792567D-07	0.666255D-04
40	0.583868D-04	0.733732D-05	-0.206205D-04	0.515798D-04	0.156507D-03
41	0.414105D-06	-0.150780D-06	-0.246181D-05	0.205740D-05	-0.208505D-05
42	-0.340156D-05	0.182269D-05	-0.249582D-05	-0.810604D-06	-0.236297D-05
43	-0.769060D-05	-0.563975D-05	-0.266306D-04	-0.582012D-05	0.547246D-05
44	-0.733675D-06	0.251345D-05	0.460172D-05	0.481727D-05	0.204455D-04
45	-0.757770D-05	-0.278639D-05	-0.501449D-05	0.394694D-05	-0.167251D-04
46	0.464535D-05	-0.476218D-06	0.534684D-05	0.390290D-05	-0.286023D-05
47	-0.359349D-05	-0.205868D-05	0.485091D-05	-0.351407D-05	-0.787895D-05
48	0.282789D-05	-0.531708D-06	0.140702D-07	0.143580D-05	-0.406855D-05
49	0.195879D-03	0.288121D-04	-0.909070D-04	0.170905D-03	0.555086D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.856169D-04				
27	0.947977D-05	0.152186D-04			
28	-0.168733D-04	-0.572679D-05	0.166338D-03		
29	0.470127D-05	0.388399D-05	-0.105990D-04	0.337442D-04	
30	0.172665D-04	0.805089D-05	-0.162684D-04	0.163078D-04	0.161825D-03
31	-0.222844D-04	-0.136040D-04	0.540212D-04	-0.178009D-04	-0.515803D-04
32	0.195913D-04	0.935646D-05	0.233514D-04	0.249666D-05	0.453577D-06
33	0.588101D-05	-0.552608D-05	-0.310509D-05	-0.108548D-04	0.175680D-04
34	0.378905D-05	-0.188999D-05	0.808038D-05	-0.733311D-05	-0.118913D-04
35	0.617752D-05	-0.907720D-06	-0.150531D-04	-0.826313D-06	0.753867D-06
36	-0.184808D-04	0.835406D-06	-0.304186D-04	-0.657749D-05	0.587691D-05
37	-0.672226D-05	-0.105972D-04	-0.262436D-04	0.102608D-04	0.294058D-06
38	-0.197642D-04	0.953609D-05	0.211342D-05	0.227416D-04	0.135122D-04
39	0.402426D-05	0.610890D-05	-0.375771D-05	0.916823D-05	-0.329458D-04
40	-0.827314D-05	-0.204978D-04	-0.914293D-04	-0.459212D-04	-0.184066D-03
41	0.281464D-06	0.960461D-06	-0.558724D-05	-0.146513D-05	-0.603644D-06
42	-0.119689D-05	-0.690286D-06	0.211399D-05	-0.489697D-08	0.350645D-06
43	-0.343028D-05	-0.106937D-04	0.343774D-04	0.131925D-05	-0.210266D-05
44	-0.571924D-06	0.739519D-05	-0.157908D-04	0.600039D-05	0.151709D-04
45	0.543264D-05	-0.451786D-05	0.109751D-04	-0.101727D-04	-0.355777D-04
46	-0.313165D-05	-0.278396D-05	-0.187870D-05	-0.723344D-06	-0.395960D-05
47	-0.182132D-05	0.282903D-05	-0.207377D-05	-0.196529D-06	0.776105D-05
48	0.199038D-05	0.300573D-06	-0.588594D-05	0.142858D-05	-0.137305D-05
49	-0.383581D-04	-0.615425D-04	-0.310906D-03	-0.131281D-03	-0.609738D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

31	32	33	34	35
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31	0.261948D-03				
32	-0.929123D-05	0.623818D-02			
33	-0.851519D-05	0.218952D-03	0.394224D-02		
34	0.366398D-04	-0.102551D-03	-0.241409D-02	0.476498D-02	
35	0.140180D-04	-0.316600D-04	0.451617D-03	-0.322681D-03	0.134774D-02
36	-0.132748D-04	-0.629295D-02	-0.281995D-03	0.106581D-03	-0.245056D-04
37	0.600250D-05	-0.621273D-02	-0.291708D-03	0.159365D-03	0.623207D-04
38	0.182950D-04	-0.105225D-02	-0.272477D-03	-0.192791D-03	-0.147419D-03
39	0.463975D-04	-0.883012D-03	-0.162826D-03	-0.173877D-03	-0.132921D-04
40	0.472808D-04	-0.385643D-04	0.123956D-03	0.583380D-05	-0.107093D-04
41	0.622102D-06	0.169019D-04	-0.120939D-04	0.107467D-04	0.327102D-05
42	0.190143D-05	0.202383D-04	0.457222D-05	0.669595D-05	-0.993928D-05
43	0.525443D-05	0.531829D-04	0.159241D-05	-0.309580D-04	-0.484635D-04
44	0.941748D-05	-0.126510D-03	0.409176D-04	-0.674522D-06	0.310627D-04
45	-0.194477D-04	0.685727D-04	0.416678D-04	-0.589514D-04	-0.512947D-04
46	-0.182495D-04	0.551889D-04	-0.282143D-04	0.363611D-05	-0.101321D-04
47	0.104899D-04	-0.662070D-04	-0.444074D-04	0.221187D-04	-0.861989D-05
48	-0.358751D-05	-0.118685D-04	0.320162D-04	-0.321753D-04	0.379147D-04
49	0.173542D-03	-0.107919D-02	0.179985D-03	-0.885422D-04	-0.113560D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.947177D-02				
37	0.629629D-02	0.840095D-02			
38	0.108279D-02	0.121811D-02	0.858167D-02		
39	0.852529D-03	0.106894D-02	0.545108D-02	0.828550D-02	
40	0.365566D-03	-0.742845D-04	-0.876690D-03	0.406480D-02	0.287067D-01
41	0.526189D-04	0.234908D-04	0.105930D-04	0.119686D-04	-0.596711D-04
42	-0.231879D-04	-0.371788D-04	0.106336D-03	0.392878D-04	0.243967D-05
43	-0.263517D-04	-0.106021D-03	-0.914779D-04	-0.553420D-04	0.938380D-04
44	0.782768D-04	0.113116D-03	0.116242D-04	-0.324287D-04	-0.116210D-03
45	0.476181D-04	-0.747044D-04	0.537955D-04	0.105493D-03	0.752516D-04
46	-0.537429D-04	-0.601580D-04	0.836982D-05	-0.100392D-04	-0.746391D-04
47	0.241614D-04	0.783610D-04	-0.224477D-04	0.825315D-04	0.189231D-03
48	0.268884D-04	-0.158163D-04	-0.962194D-05	-0.208795D-04	-0.833300D-05
49	0.217994D-02	0.855765D-03	0.296046D-02	0.192639D-01	0.948472D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45

41	0.106698D-03				
42	0.758388D-06	0.768536D-04			
43	-0.188766D-04	0.498297D-05	0.203765D-02		
44	0.931289D-05	-0.501554D-05	-0.119741D-02	0.151236D-02	
45	-0.233714D-04	0.128753D-04	0.712088D-03	-0.139067D-02	0.264964D-02
46	-0.132519D-05	0.141001D-05	0.192006D-03	-0.136537D-03	0.106756D-03
47	-0.445626D-05	-0.497965D-05	-0.905946D-04	0.146074D-03	-0.178170D-03
48	-0.156920D-05	0.154505D-05	0.287009D-04	-0.192267D-04	0.339731D-04
49	-0.129340D-03	0.112831D-03	0.208606D-03	-0.376103D-03	0.323354D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.305371D-03			
47	-0.174985D-03	0.355830D-03		
48	0.619059D-04	-0.550142D-04	0.166567D-03	
49	-0.212545D-03	0.634330D-03	-0.346067D-04	0.319583D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.233	1.000			
3	0.083	0.173	1.000		
4	0.085	0.162	0.217	1.000	
5	-0.088	-0.179	-0.166	-0.199	1.000
6	0.034	-0.024	0.011	-0.013	0.011
7	0.022	0.038	-0.012	0.020	-0.007
8	0.011	-0.007	-0.004	0.029	-0.007
9	0.024	0.031	-0.001	-0.017	-0.010
10	0.004	0.044	0.020	-0.013	-0.018
11	0.025	0.015	-0.055	0.027	-0.020
12	-0.022	0.019	-0.051	0.014	-0.003
13	0.004	0.025	0.011	0.027	0.019
14	-0.005	-0.048	-0.030	-0.034	0.021
15	0.016	0.000	-0.037	-0.038	0.004
16	-0.026	0.008	0.041	0.047	-0.014
17	-0.025	-0.027	-0.015	-0.022	0.001
18	-0.009	0.000	-0.007	-0.057	0.037
19	-0.006	-0.053	0.009	-0.041	-0.003
20	0.030	0.010	0.032	0.013	-0.005
21	-0.013	0.040	-0.005	0.031	-0.003

22	-0.014	0.007	-0.018	0.000	0.014
23	0.010	0.012	-0.022	-0.001	0.000
24	-0.014	0.008	0.004	-0.024	0.012
25	0.034	0.035	0.003	-0.055	0.002
26	0.035	-0.001	0.020	-0.013	0.009
27	-0.005	0.025	0.009	-0.063	0.018
28	-0.019	-0.020	0.034	0.023	-0.034
29	-0.015	0.001	0.018	-0.005	-0.015
30	0.003	0.001	0.051	-0.038	0.035
31	-0.029	-0.012	-0.002	0.053	-0.005
32	0.044	0.000	0.032	0.000	0.003
33	-0.028	-0.008	-0.013	0.041	-0.026
34	0.025	0.013	0.030	-0.004	0.013
35	-0.011	-0.041	-0.059	-0.031	0.076
36	-0.025	0.023	-0.032	-0.002	0.005
37	-0.035	0.013	-0.028	-0.003	0.001
38	-0.010	0.016	0.025	-0.012	-0.024
39	-0.002	0.010	0.066	-0.006	-0.041
40	0.002	-0.008	0.012	0.022	0.001
41	-0.040	-0.070	-0.020	0.011	0.000
42	-0.015	0.009	0.010	-0.006	-0.004
43	-0.014	-0.042	-0.010	-0.011	-0.038
44	0.007	0.016	0.010	0.007	0.037
45	0.002	-0.005	0.006	-0.022	-0.037
46	0.022	-0.028	0.010	0.010	-0.053
47	0.015	0.008	0.039	0.031	0.010
48	0.025	0.037	0.037	0.012	-0.011
49	0.002	-0.007	0.017	0.020	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.131	1.000			
8	-0.045	-0.103	1.000		
9	0.031	-0.189	-0.129	1.000	
10	0.065	0.016	0.079	0.119	1.000
11	-0.041	0.031	0.010	0.023	-0.052
12	-0.037	0.011	0.043	-0.034	-0.045
13	0.006	-0.013	0.007	-0.035	0.005
14	0.048	-0.002	-0.005	-0.002	0.023
15	0.009	-0.001	0.017	0.064	-0.016
16	0.004	0.067	-0.041	-0.016	-0.011

17	0.001	0.009	0.043	-0.002	-0.021
18	0.001	-0.014	0.028	0.025	0.005
19	0.021	0.011	0.014	-0.018	-0.022
20	0.014	0.003	0.030	-0.015	0.014
21	0.012	-0.008	-0.006	0.015	-0.067
22	-0.041	-0.014	0.023	0.056	-0.007
23	-0.011	0.009	0.034	0.013	-0.016
24	0.060	-0.003	-0.012	0.032	-0.002
25	0.034	-0.026	-0.010	-0.042	-0.005
26	-0.011	0.006	-0.055	0.009	0.009
27	0.017	0.009	0.007	0.052	0.016
28	-0.013	0.030	-0.005	-0.010	-0.005
29	0.024	0.002	-0.029	-0.047	0.002
30	-0.031	-0.006	0.006	-0.003	-0.022
31	0.007	0.018	0.009	0.022	0.008
32	0.092	0.019	-0.008	-0.036	-0.032
33	-0.005	-0.003	0.017	-0.020	0.022
34	-0.017	0.025	-0.013	0.008	-0.059
35	-0.028	-0.004	0.022	0.026	-0.023
36	-0.037	0.027	-0.004	0.048	0.003
37	-0.060	0.001	0.015	0.059	0.021
38	0.035	0.001	-0.006	0.031	-0.023
39	0.042	-0.021	-0.020	0.021	-0.018
40	-0.001	-0.024	0.031	0.052	-0.035
41	0.068	0.069	0.030	-0.044	-0.003
42	0.010	0.087	0.046	-0.001	0.015
43	-0.012	-0.037	0.036	-0.036	0.017
44	0.010	0.029	-0.068	0.027	-0.027
45	-0.022	-0.001	0.035	-0.004	0.010
46	-0.007	0.000	0.022	0.005	-0.041
47	0.027	0.040	-0.044	0.003	-0.021
48	-0.030	-0.045	-0.018	0.005	-0.023
49	0.006	-0.001	0.030	0.051	-0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.295	1.000			
13	0.057	0.339	1.000		
14	-0.114	-0.142	-0.049	1.000	
15	-0.030	-0.130	-0.183	0.268	1.000
16	-0.001	0.006	0.082	-0.167	-0.214



17	0.062	0.177	0.073	-0.088	-0.036
18	0.009	0.100	0.211	0.010	-0.127
19	-0.007	0.008	-0.052	0.131	0.163
20	-0.017	-0.001	-0.036	-0.038	-0.039
21	0.093	0.173	0.045	-0.012	-0.006
22	0.019	0.138	0.255	-0.057	-0.125
23	-0.010	-0.019	0.005	0.075	0.142
24	0.007	0.058	0.062	-0.061	-0.030
25	0.038	0.032	0.062	0.013	-0.009
26	-0.086	-0.202	-0.070	0.169	0.071
27	-0.063	-0.107	-0.235	0.050	0.175
28	0.069	0.062	0.043	-0.177	-0.212
29	-0.033	-0.029	-0.015	0.040	0.018
30	-0.067	-0.037	-0.036	0.011	-0.013
31	0.079	0.051	0.021	-0.046	-0.034
32	0.003	-0.012	-0.001	-0.020	-0.026
33	0.030	0.008	-0.024	0.012	0.027
34	-0.014	0.009	0.020	-0.015	0.004
35	0.013	-0.014	-0.001	0.039	0.029
36	0.021	0.008	-0.002	0.046	0.053
37	-0.003	0.013	0.024	0.011	0.010
38	0.016	-0.004	0.014	-0.015	0.000
39	0.008	-0.013	0.004	0.006	-0.035
40	0.025	0.022	0.034	0.006	-0.025
41	0.056	0.029	-0.011	0.015	-0.002
42	0.004	0.027	0.063	0.012	-0.009
43	0.025	-0.023	0.025	-0.019	-0.015
44	-0.033	0.027	-0.030	0.001	-0.007
45	0.016	-0.060	0.001	0.008	0.006
46	0.024	0.002	0.030	0.041	0.039
47	-0.027	-0.004	-0.015	-0.019	-0.038
48	0.035	-0.024	0.018	-0.014	-0.016
49	0.026	0.020	0.032	0.006	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.029	1.000			
18	0.028	0.272	1.000		
19	-0.178	-0.105	-0.135	1.000	
20	0.017	0.101	0.177	-0.097	1.000
21	0.011	0.201	0.051	0.003	-0.019

22	0.021	0.083	0.189	0.006	0.007
23	-0.110	-0.046	-0.034	0.208	-0.039
24	0.039	0.098	0.208	-0.105	0.260
25	0.010	0.038	0.092	-0.020	0.053
26	-0.060	-0.160	-0.032	0.016	-0.027
27	-0.097	-0.100	-0.124	0.039	0.035
28	0.248	0.053	0.014	-0.202	0.011
29	-0.053	-0.095	-0.205	0.171	-0.157
30	-0.035	-0.055	-0.031	0.069	0.003
31	0.043	0.043	0.008	-0.042	0.006
32	0.010	0.036	0.024	0.004	0.045
33	-0.002	-0.057	-0.023	0.042	-0.005
34	-0.016	0.006	-0.004	-0.019	-0.010
35	0.016	0.008	0.019	0.035	-0.019
36	-0.011	-0.041	-0.039	0.021	-0.028
37	0.000	-0.022	-0.003	-0.024	-0.064
38	-0.045	0.023	-0.001	-0.010	0.007
39	0.009	0.029	0.015	-0.012	-0.021
40	-0.030	0.003	0.035	0.021	0.013
41	-0.019	0.037	0.032	0.001	0.018
42	-0.009	0.013	-0.006	0.039	0.007
43	0.055	0.031	0.012	-0.012	-0.032
44	-0.035	-0.013	-0.006	0.012	0.027
45	0.028	-0.028	0.002	0.003	-0.036
46	-0.010	0.049	0.005	0.014	-0.021
47	0.012	-0.022	0.009	0.002	0.012
48	0.027	-0.010	-0.010	0.061	-0.001
49	-0.031	0.007	0.033	0.019	0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.268	1.000			
23	-0.150	-0.133	1.000		
24	0.083	0.242	-0.112	1.000	
25	0.096	0.225	-0.088	0.287	1.000
26	-0.192	-0.064	0.105	-0.014	-0.066
27	-0.092	-0.196	0.053	-0.084	-0.011
28	0.043	-0.006	-0.207	0.036	0.024
29	-0.047	-0.069	0.085	-0.208	-0.045
30	-0.103	-0.171	0.177	-0.176	-0.263
31	0.056	0.065	-0.069	0.048	0.034

32	-0.025	-0.032	0.004	0.016	0.013
33	-0.030	-0.006	-0.024	0.005	-0.007
34	0.007	0.017	0.004	-0.031	0.016
35	0.039	0.007	0.020	-0.028	0.011
36	0.021	0.023	-0.009	0.010	-0.031
37	0.013	0.055	0.002	-0.004	0.021
38	-0.015	0.016	0.002	-0.004	0.024
39	0.011	0.004	-0.013	0.000	0.038
40	0.035	0.010	-0.009	0.047	0.047
41	0.004	-0.003	-0.017	0.031	-0.010
42	-0.039	0.047	-0.021	-0.014	-0.014
43	-0.017	-0.028	-0.043	-0.020	0.006
44	-0.002	0.015	0.009	0.019	0.027
45	-0.015	-0.012	-0.007	0.012	-0.017
46	0.027	-0.006	0.022	0.034	-0.008
47	-0.019	-0.025	0.019	-0.029	-0.021
48	0.022	-0.009	0.000	0.017	-0.016
49	0.035	0.012	-0.012	0.046	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.263	1.000			
28	-0.141	-0.114	1.000		
29	0.087	0.171	-0.141	1.000	
30	0.147	0.162	-0.099	0.221	1.000
31	-0.149	-0.215	0.259	-0.189	-0.251
32	0.027	0.030	0.023	0.005	0.000
33	0.010	-0.023	-0.004	-0.030	0.022
34	0.006	-0.007	0.009	-0.018	-0.014
35	0.018	-0.006	-0.032	-0.004	0.002
36	-0.021	0.002	-0.024	-0.012	0.005
37	-0.008	-0.030	-0.022	0.019	0.000
38	-0.023	0.026	0.002	0.042	0.011
39	0.005	0.017	-0.003	0.017	-0.028
40	-0.005	-0.031	-0.042	-0.047	-0.085
41	0.003	0.024	-0.042	-0.024	-0.005
42	-0.015	-0.020	0.019	0.000	0.003
43	-0.008	-0.061	0.059	0.005	-0.004
44	-0.002	0.049	-0.031	0.027	0.031
45	0.011	-0.022	0.017	-0.034	-0.054
46	-0.019	-0.041	-0.008	-0.007	-0.018

47	-0.010	0.038	-0.009	-0.002	0.032
48	0.017	0.006	-0.035	0.019	-0.008
49	-0.007	-0.028	-0.043	-0.040	-0.085

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.007	1.000			
33	-0.008	0.044	1.000		
34	0.033	-0.019	-0.557	1.000	
35	0.024	-0.011	0.196	-0.127	1.000
36	-0.008	-0.819	-0.046	0.016	-0.007
37	0.004	-0.858	-0.051	0.025	0.019
38	0.012	-0.144	-0.047	-0.030	-0.043
39	0.031	-0.123	-0.028	-0.028	-0.004
40	0.017	-0.003	0.012	0.000	-0.002
41	0.004	0.021	-0.019	0.015	0.009
42	0.013	0.029	0.008	0.011	-0.031
43	0.007	0.015	0.001	-0.010	-0.029
44	0.015	-0.041	0.017	0.000	0.022
45	-0.023	0.017	0.013	-0.017	-0.027
46	-0.065	0.040	-0.026	0.003	-0.016
47	0.034	-0.044	-0.037	0.017	-0.012
48	-0.017	-0.012	0.040	-0.036	0.080
49	0.019	-0.024	0.005	-0.002	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.706	1.000			
38	0.120	0.143	1.000		
39	0.096	0.128	0.646	1.000	
40	0.022	-0.005	-0.056	0.264	1.000
41	0.052	0.025	0.011	0.013	-0.034
42	-0.027	-0.046	0.131	0.049	0.002
43	-0.006	-0.026	-0.022	-0.013	0.012
44	0.021	0.032	0.003	-0.009	-0.018
45	0.010	-0.016	0.011	0.023	0.009
46	-0.032	-0.038	0.005	-0.006	-0.025
47	0.013	0.045	-0.013	0.048	0.059

48	0.021	-0.013	-0.008	-0.018	-0.004
49	0.040	0.017	0.057	0.374	0.990

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.008	1.000			
43	-0.040	0.013	1.000		
44	0.023	-0.015	-0.682	1.000	
45	-0.044	0.029	0.306	-0.695	1.000
46	-0.007	0.009	0.243	-0.201	0.119
47	-0.023	-0.030	-0.106	0.199	-0.183
48	-0.012	0.014	0.049	-0.038	0.051
49	-0.022	0.023	0.008	-0.017	0.011

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.531	1.000		
48	0.274	-0.226	1.000	
49	-0.022	0.059	-0.005	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.027	38
200	1.007	21
300	1.006	43
400	1.007	42
500	1.002	36

600	1.002	41
700	1.004	39
800	1.008	36
900	1.004	32
1000	1.004	1

This is the interaction between latent profile categories and bullying on worsening distress

#### SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122

186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.950	0.950	0.950	0.950	
KES15	0.919	0.919	0.919	0.919	0.919
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.913
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.913			
BULLY15	0.912	0.913		
PRESS15	0.913	0.912	0.913	
DUTIES15	0.913	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES



KESCAT16  
 Category 1 0.877 5135.000  
 Category 2 0.123 720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2 58.000	0.310 0.214	0.820 -1.328	0.000 1.000	68.97% 31.03%	0.000 0.000	0.000 1.000	0.000
CLU3 58.000	0.448 0.247	0.208 -1.957	0.000 1.000	55.17% 44.83%	0.000 1.000	0.000 1.000	0.000
PHY15 5563.000	0.000 0.536	0.526 0.021	-0.865 3.135	32.48% 0.07%	-0.865 0.135	0.135 0.135	0.135
KES15 5382.000	0.000 0.095	0.475 -0.842	-0.374 0.626	22.78% 6.60%	-0.374 -0.041	-0.207 0.293	-0.041
CHOICE15 5345.000	0.000 1.097	-0.400 -0.356	-2.221 1.779	7.67% 8.62%	-1.221 0.779	-0.221 0.779	-0.221
BULLY15 5344.000	1.153 0.216	3.522 14.164	1.000 5.000	88.29% 0.09%	1.000 1.000	1.000 1.000	1.000
PRESS15 5345.000	0.000 1.001	0.267 -0.357	-1.445 2.555	19.70% 2.75%	-0.445 0.555	-0.445 0.555	-0.445
DUTIES15 5347.000	0.000 0.828	-1.296 1.939	-3.149 0.851	2.34% 39.74%	-0.149 -0.149	-0.149 0.851	-0.149

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
 OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49

MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.137	0.033	0.000	0.076	0.205	*
CHOICE15	-0.058	0.025	0.008	-0.109	-0.009	*
DUTIES15	-0.083	0.027	0.001	-0.136	-0.030	*
PRESS15	-0.031	0.025	0.103	-0.085	0.014	
KES15	1.614	0.084	0.000	1.453	1.783	*
KES15 WITH						
PHY15	0.055	0.003	0.000	0.048	0.061	*
CHOICE15	-0.036	0.005	0.000	-0.045	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.044	0.062	*
DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*
PHY15 WITH						
CHOICE15	-0.092	0.010	0.000	-0.112	-0.072	*
BULLY15	0.024	0.005	0.000	0.015	0.034	*
PRESS15	0.063	0.010	0.000	0.043	0.082	*
DUTIES15	-0.056	0.009	0.000	-0.075	-0.039	*
CHOICE15 WITH						
BULLY15	-0.050	0.007	0.000	-0.064	-0.037	*
PRESS15	-0.078	0.014	0.000	-0.107	-0.050	*
DUTIES15	0.159	0.013	0.000	0.133	0.185	*
BULLY15 WITH						
PRESS15	0.090	0.007	0.000	0.077	0.103	*
DUTIES15	-0.057	0.006	0.000	-0.069	-0.046	*
PRESS15 WITH						
DUTIES15	-0.156	0.013	0.000	-0.182	-0.132	*
Means						
PHY15	0.001	0.010	0.450	-0.017	0.021	
KES15	0.003	0.004	0.231	-0.006	0.012	

CHOICE15	-0.003	0.014	0.407	-0.031	0.025	
PRESS15	0.001	0.014	0.455	-0.025	0.030	
DUTIES15	-0.003	0.012	0.388	-0.028	0.021	
Variances						
PHY15	0.536	0.010	0.000	0.517	0.556	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.098	0.021	0.000	1.058	1.143	*
BULLY15	0.215	0.004	0.000	0.207	0.223	*
PRESS15	1.002	0.019	0.000	0.965	1.041	*
DUTIES15	0.828	0.016	0.000	0.800	0.864	*
Between Level						
S1	ON					
CLU2		-0.108	0.217	0.314	-0.535	0.320
CLU3		0.076	0.213	0.365	-0.332	0.527
KESCAT16	ON					
CLU2		0.070	0.089	0.224	-0.106	0.241
CLU3		0.061	0.085	0.217	-0.108	0.232
BULLY15		-0.941	0.543	0.041	-2.015	0.116
CLU2	WITH					
CLU3		-0.137	0.039	0.000	-0.227	-0.076
BULLY15		0.002	0.011	0.420	-0.020	0.023
CLU3	WITH					
BULLY15		-0.004	0.012	0.355	-0.029	0.019
Means						
CLU2		0.311	0.063	0.000	0.191	0.435
CLU3		0.446	0.069	0.000	0.309	0.582
BULLY15		1.156	0.022	0.000	1.113	1.200
Intercepts						
S1		0.144	0.181	0.217	-0.227	0.482
Thresholds						
KESCAT16\$1		0.333	0.625	0.290	-0.881	1.589
Variances						
CLU2		0.230	0.045	0.000	0.161	0.340
CLU3		0.261	0.052	0.000	0.187	0.386

BULLY15	0.025	0.005	0.000	0.017	0.037	*
Residual Variances						
KESCAT16	0.006	0.007	0.000	0.000	0.025	*
S1	0.048	0.063	0.000	0.002	0.229	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON						
BULLY15	0.056	0.026	0.015	0.004	0.105	*
KESCAT16 ON						
PHY15	0.087	0.020	0.000	0.046	0.127	*
CHOICE15	-0.052	0.022	0.007	-0.097	-0.009	*
DUTIES15	-0.065	0.021	0.002	-0.106	-0.024	*
PRESS15	-0.028	0.022	0.097	-0.072	0.014	
KES15	0.431	0.019	0.000	0.393	0.470	*
KES15 WITH						
PHY15	0.241	0.013	0.000	0.215	0.265	*
CHOICE15	-0.112	0.013	0.000	-0.139	-0.087	*
BULLY15	0.154	0.013	0.000	0.128	0.180	*
PRESS15	0.172	0.014	0.000	0.145	0.198	*
DUTIES15	-0.180	0.013	0.000	-0.207	-0.154	*
PHY15 WITH						
CHOICE15	-0.120	0.013	0.000	-0.145	-0.094	*
BULLY15	0.072	0.013	0.000	0.046	0.099	*
PRESS15	0.086	0.014	0.000	0.059	0.112	*
DUTIES15	-0.085	0.014	0.000	-0.112	-0.059	*
CHOICE15 WITH						
BULLY15	-0.104	0.014	0.000	-0.131	-0.077	*
PRESS15	-0.074	0.013	0.000	-0.101	-0.049	*
DUTIES15	0.167	0.013	0.000	0.140	0.192	*

BULLY15 WITH						
PRESS15	0.194	0.013	0.000	0.167	0.219	*
DUTIES15	-0.136	0.014	0.000	-0.163	-0.109	*
PRESS15 WITH						
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
Means						
PHY15	0.002	0.013	0.441	-0.024	0.028	
KES15	0.010	0.014	0.237	-0.017	0.037	
CHOICE15	-0.003	0.014	0.405	-0.030	0.023	
PRESS15	0.001	0.014	0.451	-0.025	0.029	
DUTIES15	-0.004	0.014	0.383	-0.032	0.024	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	-0.213	0.417	0.314	-0.968	0.668	
CLU3	0.157	0.434	0.365	-0.782	0.935	
KESCAT16 ON						
CLU2	0.185	0.249	0.224	-0.307	0.685	
CLU3	0.165	0.260	0.217	-0.331	0.753	
BULLY15	-0.830	0.305	0.041	-0.994	0.139	
CLU2 WITH						
CLU3	-0.565	0.091	0.000	-0.712	-0.357	*
BULLY15	0.025	0.134	0.420	-0.247	0.270	
CLU3 WITH						
BULLY15	-0.051	0.136	0.355	-0.314	0.229	
Means						
CLU2	0.646	0.144	0.000	0.374	0.945	*
CLU3	0.872	0.158	0.000	0.578	1.181	*

BULLY15	7.375	0.742	0.000	6.035	8.860	*
Intercepts						
S1	0.561	0.828	0.217	-0.832	2.419	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.203	0.246	0.000	0.010	0.889	*
S1	0.757	0.221	0.000	0.127	0.986	*

#### R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.258	0.019	0.000	0.221	0.295

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.797	0.246	0.000	0.111	0.990

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.243	0.221	0.000	0.014	0.873

#### TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

0

0

0

0

0

0

0

THETA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16	0					
PHY15	0	0				
KES15	0	0	0			
CHOICE15	0	0	0	0		
BULLY15	0	0	0	0	0	
PRESS15	0	0	0	0	0	
DUTIES15	0	0	0	0	0	

# THETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	0	
DUTIES15	0	0

# ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0	1	2	3	0

# ALPHA

PRESS15	DUTIES15
<hr/>	<hr/>
4	5

# BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	6	7	8	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	9	10



PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI		
	PRESS15	DUTIES15
PRESS15	<u>25</u>	<u></u>
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>49</u>

NU	KESCAT16	CLU2	CLU3	BULLY15
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

LAMBDA				
S1	KESCAT16	CLU2	CLU3	BULLY15

KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

# THETA

	KESCAT16	CLU2	CLU3	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>
CLU2	0	0		
CLU3	0	0	0	
BULLY15	0	0	0	0

# ALPHA

S1	KESCAT16	CLU2	CLU3	BULLY15
<u>32</u>	<u>0</u>	<u>33</u>	<u>34</u>	<u>35</u>

# BETA

	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	<u>0</u>	<u>0</u>	<u>36</u>	<u>37</u>	<u>0</u>
KESCAT16	0	0	38	39	40
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

# PSI

	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	<u>41</u>	<u></u>	<u></u>	<u></u>	<u></u>
KESCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
BULLY15	0	0	46	47	48

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<hr/>
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
0.000		0.000	0.000	0.000	0.000

ALPHA		
PRESS15		DUTIES15
0.000		0.000

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15

KESCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.268			
KES15	0.000	0.000	0.048		
CHOICE15	0.000	0.000	0.000	0.549	
BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	<u>0.501</u>	<u></u>
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>1.091</u>

NU				
	KESCAT16	CLU2	CLU3	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
KESCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000

THETA				
	KESCAT16	CLU2	CLU3	BULLY15
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000

ALPHA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
	0.000	0.000	0.403	0.469	1.153

BETA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000

PSI					
	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.120		
CLU3	0.000	0.000	0.000	0.125	
BULLY15	0.000	0.000	0.000	0.000	0.108

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity

Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.979771D-04				
2	0.103872D-04	0.194456D-04			
3	-0.180500D-04	-0.683033D-05	0.203496D-03		
4	0.117729D-04	0.931775D-05	-0.106161D-04	0.191686D-03	
5	-0.118785D-04	-0.970675D-05	0.245169D-04	-0.325348D-04	0.155494D-03
6	0.679729D-05	-0.506593D-05	0.101057D-04	-0.140166D-04	0.117386D-04
7	-0.250774D-05	0.767262D-05	-0.156848D-04	0.390164D-05	0.349643D-05
8	0.637135D-05	-0.107188D-05	0.165584D-04	0.128942D-04	-0.629282D-05
9	0.680671D-05	0.369157D-05	-0.421904D-06	-0.145021D-05	-0.821230D-05
10	0.119887D-05	0.528812D-05	0.717121D-05	-0.980240D-05	0.524971D-06
11	0.312526D-05	0.115462D-05	-0.944042D-05	0.701241D-05	-0.547000D-05
12	-0.708187D-06	0.238111D-06	-0.255357D-05	0.107116D-05	-0.605530D-06
13	0.615996D-07	0.196572D-06	-0.133872D-06	0.704688D-06	0.482497D-06
14	-0.567132D-06	-0.218345D-05	-0.332919D-05	-0.322465D-05	0.853072D-06
15	0.803841D-06	0.492707D-07	-0.166137D-05	-0.135192D-05	-0.597446D-06
16	-0.557095D-05	0.585056D-06	0.136746D-04	0.109242D-04	-0.273922D-05
17	-0.731117D-06	-0.363570D-06	-0.104038D-05	-0.105179D-05	-0.580480D-06
18	-0.153990D-06	0.205098D-07	-0.303365D-06	-0.147568D-05	0.768384D-06
19	0.712573D-06	-0.100897D-05	0.266422D-05	-0.252547D-05	-0.560651D-06
20	0.942492D-06	0.835883D-07	0.456754D-06	0.208297D-06	0.333704D-06
21	-0.119283D-05	0.168818D-05	-0.326127D-05	0.449898D-05	-0.113852D-05
22	-0.465613D-06	0.266128D-06	-0.492199D-06	0.634488D-06	0.194758D-06
23	0.155442D-05	0.726587D-06	-0.412091D-05	0.160757D-05	-0.138052D-05
24	-0.180018D-05	0.125709D-07	0.594671D-06	-0.255964D-05	0.154701D-05
25	0.679168D-05	0.330636D-05	0.467967D-06	-0.143149D-04	-0.819004D-07
26	0.381583D-05	0.352939D-06	0.925168D-06	-0.141537D-05	0.337347D-06
27	-0.644094D-07	0.532443D-06	0.404244D-06	-0.308797D-05	0.563673D-06
28	-0.279238D-05	-0.112459D-05	0.542006D-05	0.255938D-05	-0.454029D-05



29	-0.491001D-06	-0.311176D-07	0.243220D-05	-0.227360D-06	-0.448101D-06
30	0.705199D-06	0.237745D-06	0.816421D-05	-0.827768D-05	0.659398D-05
31	-0.418348D-05	-0.448392D-06	0.407498D-05	0.129008D-04	-0.160035D-05
32	0.144289D-04	0.160122D-04	0.248154D-04	-0.663382D-05	0.604457D-04
33	-0.174992D-04	-0.232923D-05	0.676314D-05	0.366439D-04	-0.214190D-04
34	0.184091D-04	0.449398D-05	-0.149383D-05	-0.581743D-05	0.123847D-04
35	0.118388D-04	0.308722D-05	-0.100779D-04	0.120659D-04	-0.653216D-05
36	-0.147866D-04	0.451160D-05	-0.734784D-04	-0.137417D-04	-0.622886D-04
37	-0.224162D-04	-0.143126D-04	-0.275628D-04	-0.428530D-04	-0.418191D-04
38	-0.739292D-05	0.594101D-05	0.382349D-04	-0.295180D-04	0.927787D-05
39	-0.179785D-06	0.171187D-05	0.808135D-04	-0.176599D-04	-0.414117D-05
40	0.514803D-04	-0.293391D-05	-0.400737D-04	0.577187D-04	-0.360854D-04
41	-0.317364D-04	-0.942080D-05	-0.169177D-04	0.969961D-05	-0.161249D-04
42	-0.128698D-05	0.301092D-06	0.566819D-06	0.201354D-06	0.113860D-06
43	-0.712078D-05	-0.740326D-05	-0.774865D-05	-0.685612D-05	-0.166308D-04
44	0.109967D-05	0.153832D-05	0.135659D-05	0.242621D-05	0.176014D-04
45	0.295593D-05	-0.729851D-06	0.148567D-04	-0.186381D-04	-0.225761D-04
46	0.111589D-05	-0.141922D-05	0.453160D-06	-0.746001D-07	-0.727772D-05
47	0.107173D-05	0.504626D-06	0.547069D-05	0.359489D-05	0.270278D-05
48	0.144090D-05	0.132116D-05	0.175378D-05	0.772324D-06	-0.248077D-06
49	0.492905D-04	-0.529585D-05	0.735513D-05	0.207439D-04	-0.377377D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.105680D-02				
7	-0.397386D-03	0.710537D-02			
8	0.824988D-04	-0.585085D-05	0.629850D-03		
9	0.193511D-04	-0.437174D-03	0.481560D-04	0.630619D-03	
10	0.615956D-04	0.721874D-04	-0.475552D-04	0.753495D-04	0.733515D-03
11	-0.131086D-04	0.254717D-04	0.885398D-06	0.730312D-05	-0.151567D-04
12	-0.405186D-05	0.266494D-05	0.482974D-06	-0.201095D-05	-0.433206D-05
13	0.587490D-06	-0.121466D-05	-0.370984D-06	-0.193249D-05	0.545848D-06
14	0.156425D-04	-0.148590D-05	0.918547D-05	-0.772316D-06	0.822606D-05
15	0.179156D-05	-0.232445D-05	0.552271D-05	0.605807D-05	-0.174138D-05
16	0.125784D-05	0.117315D-03	-0.429677D-05	-0.147539D-04	-0.347831D-05
17	-0.729249D-06	0.384265D-05	0.245284D-05	-0.704390D-06	-0.279024D-05
18	0.348642D-06	-0.227132D-05	0.918463D-07	0.169593D-05	0.113493D-06
19	0.531463D-05	0.372840D-05	0.800130D-05	-0.524974D-06	-0.410358D-05
20	0.154799D-05	0.353073D-05	0.579825D-06	-0.191335D-05	0.146491D-05
21	0.397547D-05	-0.123367D-04	-0.312207D-05	0.358852D-05	-0.185450D-04
22	-0.580013D-05	-0.373289D-05	0.509806D-05	0.664698D-05	-0.222259D-05
23	-0.499355D-05	-0.507667D-05	0.128249D-04	0.770423D-05	-0.734412D-05

24	0.108232D-04	-0.371057D-05	-0.148111D-06	0.362591D-05	0.172800D-05
25	0.215207D-04	-0.484922D-04	-0.474624D-05	-0.214630D-04	-0.214573D-05
26	-0.385408D-05	0.412820D-05	-0.221875D-05	0.377673D-06	0.460172D-05
27	0.158469D-05	0.204378D-05	0.371301D-05	0.512028D-05	0.186813D-05
28	-0.570095D-05	0.284910D-04	-0.129506D-04	-0.551519D-05	-0.299812D-05
29	0.408786D-05	0.120434D-05	-0.121998D-05	-0.770585D-05	0.247919D-05
30	-0.122409D-04	-0.527998D-05	-0.470167D-05	-0.148983D-05	-0.497409D-05
31	0.245992D-05	0.297408D-04	-0.392312D-05	0.120308D-04	0.110518D-05
32	0.273636D-03	-0.353063D-03	-0.343229D-04	-0.372049D-03	0.149497D-03
33	-0.881976D-05	-0.563111D-05	-0.393196D-05	-0.281686D-04	0.392469D-04
34	-0.412901D-04	0.135368D-03	0.308712D-04	0.155021D-04	-0.112737D-03
35	-0.854557D-05	-0.799668D-05	-0.802798D-05	0.111500D-04	-0.147024D-04
36	-0.340471D-03	0.250507D-03	0.454261D-04	0.257379D-03	-0.843292D-05
37	-0.327867D-03	0.486834D-03	0.278934D-04	0.445333D-04	0.244791D-04
38	0.597592D-04	0.142503D-03	-0.115633D-04	0.154128D-04	-0.352326D-04
39	0.849458D-04	-0.354127D-04	0.495412D-04	-0.114041D-04	-0.227685D-04
40	0.467003D-03	-0.121702D-02	0.862204D-03	-0.203697D-03	-0.452692D-03
41	0.224103D-04	0.545072D-03	0.261147D-04	-0.651775D-04	-0.649035D-04
42	-0.250057D-06	0.440736D-04	0.536578D-06	-0.446991D-05	0.413876D-06
43	-0.486593D-05	-0.124562D-03	0.846481D-05	-0.322630D-04	0.175011D-04
44	0.106639D-04	0.954227D-04	-0.314590D-04	0.205225D-04	-0.213773D-04
45	-0.351374D-04	-0.238513D-04	0.328767D-04	-0.618800D-05	0.791564D-05
46	-0.223341D-05	0.123688D-04	0.188634D-06	0.249169D-05	-0.845603D-05
47	0.135903D-04	0.334364D-04	0.256882D-05	-0.495631D-05	-0.632876D-05
48	-0.177464D-05	-0.211793D-04	-0.649464D-06	-0.344255D-06	-0.413284D-05
49	0.647275D-03	-0.181498D-03	0.970850D-03	-0.297234D-03	-0.609206D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.997696D-04				
12	0.930088D-05	0.992912D-05			
13	0.105937D-05	0.201499D-05	0.356898D-05		
14	-0.126439D-04	-0.457011D-05	-0.930359D-06	0.106912D-03	
15	-0.167329D-05	-0.195441D-05	-0.151051D-05	0.124522D-04	0.203057D-04
16	0.513108D-06	0.621534D-06	0.347501D-05	-0.380653D-04	-0.196757D-04
17	0.288680D-05	0.260846D-05	0.670488D-06	-0.469937D-05	-0.814882D-06
18	0.274934D-06	0.620733D-06	0.777425D-06	0.451590D-07	-0.110156D-05
19	-0.245728D-06	-0.255258D-07	-0.791652D-06	0.919455D-05	0.478898D-05
20	-0.564599D-06	0.752622D-08	-0.260112D-06	-0.182936D-05	-0.743683D-06
21	0.921273D-05	0.541565D-05	0.838126D-06	-0.221692D-05	-0.397576D-06
22	0.821995D-06	0.191450D-05	0.212076D-05	-0.271078D-05	-0.262121D-05
23	-0.209968D-05	-0.107114D-05	-0.121026D-07	0.109202D-04	0.864827D-05

24	0.101060D-05	0.123017D-05	0.822112D-06	-0.453060D-05	-0.962371D-06
25	0.731473D-05	0.187998D-05	0.224841D-05	0.255982D-05	-0.128905D-05
26	-0.790957D-05	-0.588637D-05	-0.121658D-05	0.164097D-04	0.295825D-05
27	-0.246156D-05	-0.132963D-05	-0.173833D-05	0.206838D-05	0.309036D-05
28	0.992415D-05	0.248146D-05	0.942443D-06	-0.228741D-04	-0.122264D-04
29	-0.214788D-05	-0.540657D-06	-0.162602D-06	0.233323D-05	0.574859D-06
30	-0.844784D-05	-0.149911D-05	-0.866445D-06	0.152331D-05	-0.653318D-06
31	0.127512D-04	0.259925D-05	0.655281D-06	-0.821327D-05	-0.264774D-05
32	-0.396102D-04	0.636455D-06	0.771426D-05	-0.250714D-04	-0.121464D-04
33	0.185270D-04	0.133438D-05	-0.306698D-05	0.765891D-05	0.807208D-05
34	-0.902902D-05	0.239510D-05	0.299737D-05	-0.123349D-04	-0.959005D-06
35	0.487963D-05	-0.571828D-06	0.283894D-06	0.151717D-05	0.302301D-05
36	0.573409D-04	-0.171783D-05	-0.100356D-04	0.627637D-04	0.341155D-04
37	0.699889D-04	0.939342D-05	0.268248D-05	-0.742237D-05	-0.124637D-04
38	0.125901D-04	-0.262329D-05	0.546328D-05	-0.239704D-04	-0.744238D-05
39	0.131334D-04	-0.470336D-05	0.315784D-05	0.413651D-05	-0.177995D-04
40	-0.181337D-04	0.478143D-04	-0.725627D-05	-0.210544D-03	-0.180845D-03
41	0.296908D-04	0.491434D-06	0.878369D-06	0.207899D-04	0.241553D-05
42	0.519566D-06	0.620592D-06	0.637034D-06	-0.112177D-05	-0.100811D-05
43	0.105177D-04	-0.461092D-05	0.151843D-05	-0.151675D-04	-0.418055D-05
44	-0.122507D-04	0.444632D-05	-0.165088D-05	0.389154D-05	-0.108004D-06
45	0.807410D-05	-0.108165D-04	-0.426687D-06	0.512225D-05	0.794829D-06
46	0.170524D-05	0.115383D-05	0.767961D-06	0.275058D-05	0.113416D-05
47	-0.176663D-05	-0.820571D-06	-0.389158D-06	-0.150365D-05	-0.131997D-05
48	0.262760D-05	-0.382271D-06	0.150422D-06	-0.970790D-06	-0.166877D-06
49	-0.139827D-04	0.521663D-04	-0.607713D-05	-0.254203D-03	-0.225320D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.461342D-03				
17	0.326398D-05	0.220707D-04			
18	0.119435D-05	0.256164D-05	0.387129D-05		
19	-0.256919D-04	-0.379867D-05	-0.177061D-05	0.457460D-04	
20	0.159289D-05	0.202592D-05	0.149007D-05	-0.276250D-05	0.171705D-04
21	0.324412D-05	0.919323D-05	0.980612D-06	-0.332540D-06	-0.808577D-06
22	0.207803D-05	0.167900D-05	0.159546D-05	0.100267D-06	0.110082D-06
23	-0.341931D-04	-0.365908D-05	-0.968386D-06	0.198481D-04	-0.259830D-05
24	0.428968D-05	0.342404D-05	0.277860D-05	-0.571716D-05	0.734334D-05
25	0.448580D-05	0.367947D-05	0.361585D-05	-0.259019D-05	0.448610D-05
26	-0.127375D-04	-0.665636D-05	-0.555771D-06	0.859912D-06	-0.882009D-06
27	-0.790647D-05	-0.180004D-05	-0.898665D-06	0.965607D-06	0.598709D-06
28	0.689081D-04	0.319708D-05	0.228535D-06	-0.165901D-04	0.401331D-06

29	-0.724409D-05	-0.261778D-05	-0.239940D-05	0.688259D-05	-0.366226D-05
30	-0.988163D-05	-0.326811D-05	-0.766139D-06	0.571621D-05	0.508164D-06
31	0.153216D-04	0.321289D-05	0.241839D-06	-0.442318D-05	0.226798D-06
32	0.133265D-04	0.338983D-04	0.213579D-04	-0.240253D-05	0.412527D-04
33	-0.408339D-05	-0.170055D-04	-0.281765D-05	0.166286D-04	-0.171066D-05
34	-0.250042D-04	0.194802D-05	0.144492D-06	-0.598229D-05	-0.330893D-05
35	0.602512D-05	0.378261D-05	0.126967D-05	-0.291190D-05	0.770786D-06
36	-0.309835D-05	-0.580405D-04	-0.328284D-04	0.234274D-04	-0.354428D-04
37	0.308471D-05	-0.669535D-06	-0.164715D-04	-0.259092D-04	-0.528792D-04
38	-0.548164D-04	0.164540D-04	-0.124791D-05	-0.448837D-05	0.119375D-05
39	0.458432D-04	0.104747D-04	-0.314495D-07	-0.904801D-06	-0.140367D-04
40	0.385292D-03	0.712607D-04	0.554826D-04	0.692255D-04	0.676814D-04
41	-0.640545D-04	0.125481D-04	-0.483358D-06	0.247341D-05	0.314053D-05
42	-0.153130D-05	0.461375D-06	0.228208D-07	0.144886D-05	0.575991D-06
43	0.594114D-04	0.439083D-05	-0.274240D-06	-0.706631D-05	-0.418139D-05
44	-0.319331D-04	-0.124477D-05	0.583251D-07	0.505550D-05	0.352450D-05
45	0.267749D-04	-0.800301D-05	-0.969508D-07	0.142929D-05	-0.746422D-05
46	-0.241416D-06	0.335018D-05	0.358109D-06	-0.626319D-07	-0.804148D-06
47	0.298069D-05	-0.106504D-05	0.928594D-07	0.773968D-06	-0.142577D-06
48	0.246937D-05	0.444574D-07	0.712349D-07	0.159498D-05	0.327270D-06
49	0.459648D-03	0.961842D-04	0.589520D-04	0.730066D-04	0.746547D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.993358D-04				
22	0.117875D-04	0.194526D-04			
23	-0.216218D-04	-0.766068D-05	0.192710D-03		
24	0.530034D-05	0.673933D-05	-0.102031D-04	0.439007D-04	
25	0.187406D-04	0.192731D-04	-0.275611D-04	0.360343D-04	0.378822D-03
26	-0.177783D-04	-0.261761D-05	0.137369D-04	-0.880072D-06	-0.120036D-04
27	-0.358702D-05	-0.338170D-05	0.285509D-05	-0.205700D-05	-0.795284D-06
28	0.626622D-05	-0.622069D-06	-0.353604D-04	0.236981D-05	0.737331D-05
29	-0.303543D-05	-0.161946D-05	0.649704D-05	-0.762630D-05	-0.497960D-05
30	-0.129234D-04	-0.956384D-05	0.314471D-04	-0.134260D-04	-0.653185D-04
31	0.908340D-05	0.459734D-05	-0.158624D-04	0.458969D-05	0.106165D-04
32	-0.492744D-04	-0.565764D-05	-0.400060D-04	0.568056D-04	0.650645D-04
33	-0.189537D-04	-0.194932D-05	-0.203802D-04	-0.135703D-06	-0.944832D-05
34	0.526530D-05	0.554459D-05	0.117769D-05	-0.144682D-04	0.233080D-04
35	0.949937D-05	-0.344114D-06	-0.695017D-05	0.158961D-05	0.732811D-05
36	0.334318D-04	-0.674715D-05	0.510228D-04	-0.523082D-04	-0.124712D-03
37	0.514373D-04	0.393699D-04	0.454393D-04	-0.357983D-04	0.121871D-03
38	-0.799158D-05	0.542762D-05	-0.774548D-06	-0.114964D-04	0.522466D-04

39	0.165009D-05	-0.474433D-05	-0.127432D-04	-0.229070D-04	0.478508D-04
40	0.279771D-03	0.970942D-04	-0.226795D-03	0.200700D-03	0.817964D-04
41	0.269570D-07	0.588356D-05	0.243912D-04	-0.204083D-05	-0.244067D-04
42	-0.127004D-05	0.189101D-05	-0.410105D-05	0.956486D-06	-0.275861D-05
43	-0.956157D-05	-0.590028D-05	-0.331342D-04	-0.670016D-05	0.851074D-05
44	-0.107272D-06	0.269836D-05	0.845463D-05	0.354274D-05	0.203815D-04
45	-0.655563D-05	-0.288780D-05	-0.669893D-05	0.554947D-05	-0.158702D-04
46	0.291066D-05	0.571075D-06	0.255059D-05	0.248772D-05	-0.369738D-06
47	-0.214590D-05	-0.142234D-05	0.285892D-05	-0.223269D-05	-0.352911D-05
48	0.132710D-05	0.222438D-06	0.260933D-06	0.541134D-06	-0.752569D-06
49	0.323239D-03	0.113324D-03	-0.285505D-03	0.216479D-03	0.122507D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.855897D-04				
27	0.949390D-05	0.152533D-04			
28	-0.178609D-04	-0.542854D-05	0.168815D-03		
29	0.457347D-05	0.374195D-05	-0.104659D-04	0.337346D-04	
30	0.172617D-04	0.803562D-05	-0.172684D-04	0.155515D-04	0.161914D-03
31	-0.223175D-04	-0.136330D-04	0.549159D-04	-0.170257D-04	-0.516897D-04
32	0.683732D-04	0.175820D-04	0.570406D-04	-0.205082D-04	-0.196069D-04
33	0.561324D-05	-0.567001D-05	-0.617754D-05	-0.916465D-05	0.175849D-04
34	0.351436D-05	-0.171216D-05	0.116361D-04	-0.608361D-05	-0.121649D-04
35	0.234430D-06	0.644350D-06	-0.183941D-05	-0.232051D-05	-0.180599D-05
36	-0.774882D-04	-0.593778D-05	-0.843890D-04	0.292828D-04	0.496797D-04
37	-0.523891D-04	-0.211742D-04	-0.427413D-04	0.316190D-04	0.260009D-04
38	-0.995489D-05	0.428805D-05	-0.107167D-05	0.221823D-04	-0.195415D-05
39	0.133344D-04	0.117230D-05	0.700523D-06	0.171190D-04	-0.180530D-04
40	-0.256530D-03	-0.117619D-03	-0.134272D-03	0.305269D-06	-0.119647D-03
41	0.360169D-05	0.791639D-05	-0.215272D-04	-0.217762D-06	-0.154648D-04
42	-0.177081D-05	-0.585782D-06	0.114573D-05	0.534103D-06	0.261948D-06
43	-0.296429D-06	-0.980796D-05	0.346367D-04	0.243595D-05	-0.160293D-05
44	-0.104171D-05	0.619422D-05	-0.159593D-04	0.581237D-05	0.139382D-04
45	0.480663D-05	-0.346038D-05	0.132064D-04	-0.105483D-04	-0.332929D-04
46	-0.370983D-05	-0.187765D-05	0.130164D-05	-0.144629D-05	-0.251152D-05
47	-0.615813D-06	0.199311D-05	-0.202386D-05	0.120706D-05	0.492971D-05
48	0.740134D-06	0.127875D-06	-0.167188D-05	0.153926D-06	-0.643706D-06
49	-0.300282D-03	-0.134599D-03	-0.160592D-03	0.213808D-04	-0.139839D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

31	32	33	34	35
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31	0.262062D-03				
32	0.471073D-04	0.326279D-01			
33	-0.738517D-05	0.176687D-03	0.395215D-02		
34	0.354235D-04	-0.976699D-04	-0.242262D-02	0.477404D-02	
35	0.370778D-05	-0.356888D-04	0.644098D-04	-0.624909D-04	0.505758D-03
36	-0.940980D-04	-0.326096D-01	-0.121389D-03	0.615565D-04	-0.208411D-04
37	-0.335673D-04	-0.327242D-01	-0.540158D-03	0.236637D-03	0.296031D-04
38	0.116475D-04	0.711595D-03	-0.260233D-03	-0.221388D-03	-0.668341D-04
39	0.319918D-04	0.108515D-02	-0.148922D-03	-0.167889D-03	0.989725D-05
40	-0.104456D-03	0.204216D-02	0.535991D-03	0.646521D-03	-0.443252D-03
41	-0.355324D-05	-0.106902D-02	-0.172459D-03	0.514840D-04	0.192341D-04
42	0.957512D-06	0.470278D-04	-0.346066D-05	0.182397D-04	-0.368331D-05
43	0.160672D-04	0.106521D-03	0.247645D-04	-0.495090D-04	-0.360498D-04
44	0.309179D-05	-0.122188D-03	0.342697D-04	0.415666D-05	0.203473D-04
45	-0.134230D-04	-0.112057D-04	0.435466D-04	-0.580071D-04	-0.347148D-04
46	-0.112464D-04	0.138488D-04	-0.270446D-04	0.125459D-04	-0.571588D-06
47	0.406639D-05	-0.741695D-04	-0.165083D-04	0.775220D-05	-0.400175D-05
48	0.784361D-06	0.691125D-06	0.156044D-04	-0.580693D-05	0.364432D-05
49	-0.109112D-03	0.332168D-02	0.409372D-03	0.622156D-03	-0.559552D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.472659D-01				
37	0.320203D-01	0.454444D-01			
38	-0.126887D-02	0.135241D-03	0.788780D-02		
39	-0.110874D-02	-0.812415D-03	0.521337D-02	0.722608D-02	
40	-0.181732D-02	-0.400735D-02	-0.461153D-02	-0.724960D-03	0.294665D+00
41	-0.508692D-03	0.309249D-02	0.998471D-04	-0.120164D-04	-0.285505D-02
42	-0.762859D-04	-0.335435D-04	0.509355D-04	0.538679D-05	0.690627D-03
43	0.672452D-04	-0.231871D-03	-0.670522D-04	-0.440932D-04	0.795372D-03
44	-0.150154D-03	0.995713D-04	-0.244262D-04	-0.425585D-04	-0.396362D-03
45	0.384832D-03	-0.283013D-04	0.522277D-04	0.625924D-04	-0.140005D-03
46	-0.253549D-04	0.679461D-06	0.244418D-04	-0.805842D-05	0.248107D-03
47	0.514661D-04	0.728681D-04	0.123841D-04	0.957766D-04	-0.799578D-04
48	0.185152D-04	-0.249303D-04	-0.110877D-04	-0.954161D-05	0.736349D-04
49	-0.335961D-02	-0.475854D-02	0.222721D-03	0.464224D-02	0.336537D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45

41	0.395031D-02					
42	0.177379D-05	0.495005D-04				
43	-0.873674D-04	0.234107D-05	0.203357D-02			
44	0.223792D-04	-0.189686D-05	-0.121273D-02	0.152219D-02		
45	-0.463686D-04	0.633109D-05	0.732644D-03	-0.140999D-02	0.267536D-02	
46	-0.137159D-04	-0.148977D-07	0.149969D-04	-0.202272D-04	0.220656D-04	
47	0.235528D-04	-0.142971D-05	0.256090D-05	0.160380D-04	-0.334664D-04	
48	-0.633643D-05	-0.268404D-06	0.255211D-05	0.715269D-07	0.756337D-05	
49	-0.290798D-02	0.859802D-03	0.815245D-03	-0.473780D-03	-0.104251D-03	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.113693D-03			
47	-0.644022D-04	0.133521D-03		
48	0.423368D-06	-0.756041D-05	0.266928D-04	
49	0.305969D-03	-0.479579D-04	0.727694D-04	0.390248D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.238	1.000			
3	-0.128	-0.109	1.000		
4	0.086	0.153	-0.054	1.000	
5	-0.096	-0.177	0.138	-0.188	1.000
6	0.021	-0.035	0.022	-0.031	0.029
7	-0.003	0.021	-0.013	0.003	0.003
8	0.026	-0.010	0.046	0.037	-0.020
9	0.027	0.033	-0.001	-0.004	-0.026
10	0.004	0.044	0.019	-0.026	0.002
11	0.032	0.026	-0.066	0.051	-0.044
12	-0.023	0.017	-0.057	0.025	-0.015
13	0.003	0.024	-0.005	0.027	0.020
14	-0.006	-0.048	-0.023	-0.023	0.007
15	0.018	0.002	-0.026	-0.022	-0.011
16	-0.026	0.006	0.045	0.037	-0.010
17	-0.016	-0.018	-0.016	-0.016	-0.010
18	-0.008	0.002	-0.011	-0.054	0.031
19	0.011	-0.034	0.028	-0.027	-0.007
20	0.023	0.005	0.008	0.004	0.006
21	-0.012	0.038	-0.023	0.033	-0.009

22	-0.011	0.014	-0.008	0.010	0.004
23	0.011	0.012	-0.021	0.008	-0.008
24	-0.027	0.000	0.006	-0.028	0.019
25	0.035	0.039	0.002	-0.053	0.000
26	0.042	0.009	0.007	-0.011	0.003
27	-0.002	0.031	0.007	-0.057	0.012
28	-0.022	-0.020	0.029	0.014	-0.028
29	-0.009	-0.001	0.029	-0.003	-0.006
30	0.006	0.004	0.045	-0.047	0.042
31	-0.026	-0.006	0.018	0.058	-0.008
32	0.008	0.020	0.010	-0.003	0.027
33	-0.028	-0.008	0.008	0.042	-0.027
34	0.027	0.015	-0.002	-0.006	0.014
35	0.053	0.031	-0.031	0.039	-0.023
36	-0.007	0.005	-0.024	-0.005	-0.023
37	-0.011	-0.015	-0.009	-0.015	-0.016
38	-0.008	0.015	0.030	-0.024	0.008
39	0.000	0.005	0.067	-0.015	-0.004
40	0.010	-0.001	-0.005	0.008	-0.005
41	-0.051	-0.034	-0.019	0.011	-0.021
42	-0.018	0.010	0.006	0.002	0.001
43	-0.016	-0.037	-0.012	-0.011	-0.030
44	0.003	0.009	0.002	0.004	0.036
45	0.006	-0.003	0.020	-0.026	-0.035
46	0.011	-0.030	0.003	-0.001	-0.055
47	0.009	0.010	0.033	0.022	0.019
48	0.028	0.058	0.024	0.011	-0.004
49	0.008	-0.002	0.001	0.002	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.145	1.000			
8	0.101	-0.003	1.000		
9	0.024	-0.207	0.076	1.000	
10	0.070	0.032	-0.070	0.111	1.000
11	-0.040	0.030	0.004	0.029	-0.056
12	-0.040	0.010	0.006	-0.025	-0.051
13	0.010	-0.008	-0.008	-0.041	0.011
14	0.047	-0.002	0.035	-0.003	0.029
15	0.012	-0.006	0.049	0.054	-0.014
16	0.002	0.065	-0.008	-0.027	-0.006



17	-0.005	0.010	0.021	-0.006	-0.022
18	0.005	-0.014	0.002	0.034	0.002
19	0.024	0.007	0.047	-0.003	-0.022
20	0.011	0.010	0.006	-0.018	0.013
21	0.012	-0.015	-0.012	0.014	-0.069
22	-0.040	-0.010	0.046	0.060	-0.019
23	-0.011	-0.004	0.037	0.022	-0.020
24	0.050	-0.007	-0.001	0.022	0.010
25	0.034	-0.030	-0.010	-0.044	-0.004
26	-0.013	0.005	-0.010	0.002	0.018
27	0.012	0.006	0.038	0.052	0.018
28	-0.013	0.026	-0.040	-0.017	-0.009
29	0.022	0.002	-0.008	-0.053	0.016
30	-0.030	-0.005	-0.015	-0.005	-0.014
31	0.005	0.022	-0.010	0.030	0.003
32	0.047	-0.023	-0.008	-0.082	0.031
33	-0.004	-0.001	-0.002	-0.018	0.023
34	-0.018	0.023	0.018	0.009	-0.060
35	-0.012	-0.004	-0.014	0.020	-0.024
36	-0.048	0.014	0.008	0.047	-0.001
37	-0.047	0.027	0.005	0.008	0.004
38	0.021	0.019	-0.005	0.007	-0.015
39	0.031	-0.005	0.023	-0.005	-0.010
40	0.026	-0.027	0.063	-0.015	-0.031
41	0.011	0.103	0.017	-0.041	-0.038
42	-0.001	0.074	0.003	-0.025	0.002
43	-0.003	-0.033	0.007	-0.028	0.014
44	0.008	0.029	-0.032	0.021	-0.020
45	-0.021	-0.005	0.025	-0.005	0.006
46	-0.006	0.014	0.001	0.009	-0.029
47	0.036	0.034	0.009	-0.017	-0.020
48	-0.011	-0.049	-0.005	-0.003	-0.030
49	0.032	-0.003	0.062	-0.019	-0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.296	1.000			
13	0.056	0.338	1.000		
14	-0.122	-0.140	-0.048	1.000	
15	-0.037	-0.138	-0.177	0.267	1.000
16	0.002	0.009	0.086	-0.171	-0.203

17	0.062	0.176	0.076	-0.097	-0.038
18	0.014	0.100	0.209	0.002	-0.124
19	-0.004	-0.001	-0.062	0.131	0.157
20	-0.014	0.001	-0.033	-0.043	-0.040
21	0.093	0.172	0.045	-0.022	-0.009
22	0.019	0.138	0.255	-0.059	-0.132
23	-0.015	-0.024	0.000	0.076	0.138
24	0.015	0.059	0.066	-0.066	-0.032
25	0.038	0.031	0.061	0.013	-0.015
26	-0.086	-0.202	-0.070	0.172	0.071
27	-0.063	-0.108	-0.236	0.051	0.176
28	0.076	0.061	0.038	-0.170	-0.209
29	-0.037	-0.030	-0.015	0.039	0.022
30	-0.066	-0.037	-0.036	0.012	-0.011
31	0.079	0.051	0.021	-0.049	-0.036
32	-0.022	0.001	0.023	-0.013	-0.015
33	0.030	0.007	-0.026	0.012	0.028
34	-0.013	0.011	0.023	-0.017	-0.003
35	0.022	-0.008	0.007	0.007	0.030
36	0.026	-0.003	-0.024	0.028	0.035
37	0.033	0.014	0.007	-0.003	-0.013
38	0.014	-0.009	0.033	-0.026	-0.019
39	0.015	-0.018	0.020	0.005	-0.046
40	-0.003	0.028	-0.007	-0.038	-0.074
41	0.047	0.002	0.007	0.032	0.009
42	0.007	0.028	0.048	-0.015	-0.032
43	0.023	-0.032	0.018	-0.033	-0.021
44	-0.031	0.036	-0.022	0.010	-0.001
45	0.016	-0.066	-0.004	0.010	0.003
46	0.016	0.034	0.038	0.025	0.024
47	-0.015	-0.023	-0.018	-0.013	-0.025
48	0.051	-0.023	0.015	-0.018	-0.007
49	-0.002	0.027	-0.005	-0.039	-0.080

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.032	1.000			
18	0.028	0.277	1.000		
19	-0.177	-0.120	-0.133	1.000	
20	0.018	0.104	0.183	-0.099	1.000
21	0.015	0.196	0.050	-0.005	-0.020

22	0.022	0.081	0.184	0.003	0.006
23	-0.115	-0.056	-0.035	0.211	-0.045
24	0.030	0.110	0.213	-0.128	0.267
25	0.011	0.040	0.094	-0.020	0.056
26	-0.064	-0.153	-0.031	0.014	-0.023
27	-0.094	-0.098	-0.117	0.037	0.037
28	0.247	0.052	0.009	-0.189	0.007
29	-0.058	-0.096	-0.210	0.175	-0.152
30	-0.036	-0.055	-0.031	0.066	0.010
31	0.044	0.042	0.008	-0.040	0.003
32	0.003	0.040	0.060	-0.002	0.055
33	-0.003	-0.058	-0.023	0.039	-0.007
34	-0.017	0.006	0.001	-0.013	-0.012
35	0.012	0.036	0.029	-0.019	0.008
36	-0.001	-0.057	-0.077	0.016	-0.039
37	0.001	-0.001	-0.039	-0.018	-0.060
38	-0.029	0.039	-0.007	-0.007	0.003
39	0.025	0.026	0.000	-0.002	-0.040
40	0.033	0.028	0.052	0.019	0.030
41	-0.047	0.042	-0.004	0.006	0.012
42	-0.010	0.014	0.002	0.030	0.020
43	0.061	0.021	-0.003	-0.023	-0.022
44	-0.038	-0.007	0.001	0.019	0.022
45	0.024	-0.033	-0.001	0.004	-0.035
46	-0.001	0.067	0.017	-0.001	-0.018
47	0.012	-0.020	0.004	0.010	-0.003
48	0.022	0.002	0.007	0.046	0.015
49	0.034	0.033	0.048	0.017	0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.268	1.000			
23	-0.156	-0.125	1.000		
24	0.080	0.231	-0.111	1.000	
25	0.097	0.225	-0.102	0.279	1.000
26	-0.193	-0.064	0.107	-0.014	-0.067
27	-0.092	-0.196	0.053	-0.079	-0.010
28	0.048	-0.011	-0.196	0.028	0.029
29	-0.052	-0.063	0.081	-0.198	-0.044
30	-0.102	-0.170	0.178	-0.159	-0.264
31	0.056	0.064	-0.071	0.043	0.034

32	-0.027	-0.007	-0.016	0.047	0.019
33	-0.030	-0.007	-0.023	0.000	-0.008
34	0.008	0.018	0.001	-0.032	0.017
35	0.042	-0.003	-0.022	0.011	0.017
36	0.015	-0.007	0.017	-0.036	-0.029
37	0.024	0.042	0.015	-0.025	0.029
38	-0.009	0.014	-0.001	-0.020	0.030
39	0.002	-0.013	-0.011	-0.041	0.029
40	0.052	0.041	-0.030	0.056	0.008
41	0.000	0.021	0.028	-0.005	-0.020
42	-0.018	0.061	-0.042	0.021	-0.020
43	-0.021	-0.030	-0.053	-0.022	0.010
44	0.000	0.016	0.016	0.014	0.027
45	-0.013	-0.013	-0.009	0.016	-0.016
46	0.027	0.012	0.017	0.035	-0.002
47	-0.019	-0.028	0.018	-0.029	-0.016
48	0.026	0.010	0.004	0.016	-0.007
49	0.052	0.041	-0.033	0.052	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.263	1.000			
28	-0.149	-0.107	1.000		
29	0.085	0.165	-0.139	1.000	
30	0.147	0.162	-0.104	0.210	1.000
31	-0.149	-0.216	0.261	-0.181	-0.251
32	0.041	0.025	0.024	-0.020	-0.009
33	0.010	-0.023	-0.008	-0.025	0.022
34	0.005	-0.006	0.013	-0.015	-0.014
35	0.001	0.007	-0.006	-0.018	-0.006
36	-0.039	-0.007	-0.030	0.023	0.018
37	-0.027	-0.025	-0.015	0.026	0.010
38	-0.012	0.012	-0.001	0.043	-0.002
39	0.017	0.004	0.001	0.035	-0.017
40	-0.051	-0.055	-0.019	0.000	-0.017
41	0.006	0.032	-0.026	-0.001	-0.019
42	-0.027	-0.021	0.013	0.013	0.003
43	-0.001	-0.056	0.059	0.009	-0.003
44	-0.003	0.041	-0.031	0.026	0.028
45	0.010	-0.017	0.020	-0.035	-0.051
46	-0.038	-0.045	0.009	-0.023	-0.019

47	-0.006	0.044	-0.013	0.018	0.034
48	0.015	0.006	-0.025	0.005	-0.010
49	-0.052	-0.055	-0.020	0.006	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.016	1.000			
33	-0.007	0.016	1.000		
34	0.032	-0.008	-0.558	1.000	
35	0.010	-0.009	0.046	-0.040	1.000
36	-0.027	-0.830	-0.009	0.004	-0.004
37	-0.010	-0.850	-0.040	0.016	0.006
38	0.008	0.044	-0.047	-0.036	-0.033
39	0.023	0.071	-0.028	-0.029	0.005
40	-0.012	0.021	0.016	0.017	-0.036
41	-0.003	-0.094	-0.044	0.012	0.014
42	0.008	0.037	-0.008	0.038	-0.023
43	0.022	0.013	0.009	-0.016	-0.036
44	0.005	-0.017	0.014	0.002	0.023
45	-0.016	-0.001	0.013	-0.016	-0.030
46	-0.065	0.007	-0.040	0.017	-0.002
47	0.022	-0.036	-0.023	0.010	-0.015
48	0.009	0.001	0.048	-0.016	0.031
49	-0.011	0.029	0.010	0.014	-0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.691	1.000			
38	-0.066	0.007	1.000		
39	-0.060	-0.045	0.691	1.000	
40	-0.015	-0.035	-0.096	-0.016	1.000
41	-0.037	0.231	0.018	-0.002	-0.084
42	-0.050	-0.022	0.082	0.009	0.181
43	0.007	-0.024	-0.017	-0.012	0.032
44	-0.018	0.012	-0.007	-0.013	-0.019
45	0.034	-0.003	0.011	0.014	-0.005
46	-0.011	0.000	0.026	-0.009	0.043
47	0.020	0.030	0.012	0.098	-0.013

48	0.016	-0.023	-0.024	-0.022	0.026
49	-0.025	-0.036	0.004	0.087	0.992

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.004	1.000			
43	-0.031	0.007	1.000		
44	0.009	-0.007	-0.689	1.000	
45	-0.014	0.017	0.314	-0.699	1.000
46	-0.020	0.000	0.031	-0.049	0.040
47	0.032	-0.018	0.005	0.036	-0.056
48	-0.020	-0.007	0.011	0.000	0.028
49	-0.074	0.196	0.029	-0.019	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.523	1.000		
48	0.008	-0.127	1.000	
49	0.046	-0.007	0.023	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.026	38
200	1.007	21
300	1.005	43
400	1.006	41
500	1.003	39

600	1.005	38
700	1.007	39
800	1.004	32
900	1.005	32
1000	1.004	32

This is the interaction between latent profile categories and time pressure on worsening distress

# SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4
69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122



186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.950	0.950	0.950	0.950	
KES15	0.919	0.919	0.919	0.919	0.919
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.913
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.913			
BULLY15	0.912	0.913		
PRESS15	0.913	0.912	0.913	
DUTIES15	0.913	0.913	0.913	0.913

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16  
 Category 1 0.877 5135.000  
 Category 2 0.123 720.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2 58.000	0.310 0.214	0.820 -1.328	0.000 1.000	68.97% 31.03%	0.000 0.000	0.000 1.000	0.000
CLU3 58.000	0.448 0.247	0.208 -1.957	0.000 1.000	55.17% 44.83%	0.000 1.000	0.000 1.000	0.000
PHY15 5563.000	0.000 0.536	0.526 0.021	-0.865 3.135	32.48% 0.07%	-0.865 0.135	0.135 0.135	0.135
KES15 5382.000	0.000 0.095	0.475 -0.842	-0.374 0.626	22.78% 6.60%	-0.374 -0.041	-0.207 0.293	-0.041
CHOICE15 5345.000	0.000 1.097	-0.400 -0.356	-2.221 1.779	7.67% 8.62%	-1.221 0.779	-0.221 0.779	-0.221
BULLY15 5344.000	0.000 0.216	3.522 14.164	-0.153 3.847	88.29% 0.09%	-0.153 -0.153	-0.153 -0.153	-0.153
PRESS15 5345.000	2.445 1.001	0.267 -0.357	1.000 5.000	19.70% 2.75%	2.000 3.000	2.000 3.000	2.000
DUTIES15 5347.000	0.000 0.828	-1.296 1.939	-3.149 0.851	2.34% 39.74%	-0.149 -0.149	-0.149 0.851	-0.149

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
 OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters

49

MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.137	0.032	0.000	0.077	0.206	*
CHOICE15	-0.057	0.025	0.012	-0.107	-0.007	*
DUTIES15	-0.080	0.027	0.002	-0.132	-0.026	*
BULLY15	0.113	0.047	0.008	0.025	0.202	*
KES15	1.616	0.083	0.000	1.458	1.784	*
KES15 WITH						
PHY15	0.055	0.003	0.000	0.048	0.061	*
CHOICE15	-0.036	0.005	0.000	-0.045	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.044	0.062	*
DUTIES15	-0.051	0.004	0.000	-0.058	-0.043	*
PHY15 WITH						
CHOICE15	-0.092	0.010	0.000	-0.112	-0.072	*
BULLY15	0.025	0.005	0.000	0.016	0.034	*
PRESS15	0.060	0.010	0.000	0.040	0.079	*
DUTIES15	-0.056	0.009	0.000	-0.075	-0.039	*
CHOICE15 WITH						
BULLY15	-0.052	0.007	0.000	-0.065	-0.039	*
PRESS15	-0.066	0.014	0.000	-0.094	-0.039	*
DUTIES15	0.159	0.013	0.000	0.133	0.185	*
BULLY15 WITH						
PRESS15	0.087	0.006	0.000	0.075	0.099	*
DUTIES15	-0.059	0.006	0.000	-0.070	-0.047	*
PRESS15 WITH						
DUTIES15	-0.149	0.013	0.000	-0.175	-0.126	*
Means						
PHY15	0.001	0.010	0.448	-0.017	0.022	
KES15	0.003	0.004	0.233	-0.005	0.012	

CHOICE15	-0.003	0.014	0.411	-0.031	0.025	
BULLY15	0.001	0.006	0.431	-0.011	0.015	
DUTIES15	-0.003	0.012	0.389	-0.028	0.021	
Variances						
PHY15	0.536	0.010	0.000	0.517	0.556	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.098	0.021	0.000	1.058	1.143	*
BULLY15	0.216	0.004	0.000	0.208	0.224	*
PRESS15	0.958	0.019	0.000	0.922	0.996	*
DUTIES15	0.828	0.016	0.000	0.800	0.864	*
Between Level						
S1 ON						
CLU2	-0.078	0.093	0.194	-0.259	0.101	
CLU3	-0.032	0.090	0.351	-0.222	0.137	
KESCAT16 ON						
CLU2	0.056	0.088	0.247	-0.123	0.238	
CLU3	0.061	0.085	0.218	-0.103	0.233	
PRESS15	-0.245	0.143	0.046	-0.518	0.033	
CLU2 WITH						
CLU3	-0.136	0.039	0.000	-0.228	-0.076	*
PRESS15	-0.005	0.019	0.393	-0.044	0.032	
CLU3 WITH						
PRESS15	0.001	0.020	0.472	-0.040	0.044	
Means						
CLU2	0.311	0.063	0.000	0.190	0.435	*
CLU3	0.446	0.069	0.000	0.310	0.583	*
PRESS15	2.369	0.040	0.000	2.290	2.443	*
Intercepts						
S1	0.020	0.077	0.399	-0.126	0.178	
Thresholds						
KESCAT16\$1	0.823	0.349	0.006	0.145	1.496	*
Variances						
CLU2	0.229	0.045	0.000	0.160	0.340	*
CLU3	0.262	0.052	0.000	0.188	0.386	*

PRESS15	0.073	0.017	0.000	0.049	0.114	*
Residual Variances						
KESCAT16	0.007	0.007	0.000	0.000	0.027	*
S1	0.004	0.006	0.000	0.000	0.022	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON						
PRESS15	-0.018	0.025	0.239	-0.068	0.030	
KESCAT16 ON						
PHY15	0.087	0.020	0.000	0.046	0.127	*
CHOICE15	-0.051	0.022	0.010	-0.096	-0.008	*
DUTIES15	-0.063	0.021	0.002	-0.104	-0.021	*
BULLY15	0.045	0.019	0.007	0.010	0.081	*
KES15	0.433	0.019	0.000	0.395	0.471	*
KES15 WITH						
PHY15	0.241	0.013	0.000	0.215	0.265	*
CHOICE15	-0.112	0.013	0.000	-0.139	-0.087	*
BULLY15	0.155	0.013	0.000	0.128	0.180	*
PRESS15	0.175	0.014	0.000	0.148	0.201	*
DUTIES15	-0.180	0.013	0.000	-0.207	-0.154	*
PHY15 WITH						
CHOICE15	-0.120	0.013	0.000	-0.145	-0.094	*
BULLY15	0.072	0.013	0.000	0.046	0.099	*
PRESS15	0.084	0.014	0.000	0.056	0.110	*
DUTIES15	-0.085	0.014	0.000	-0.112	-0.059	*
CHOICE15 WITH						
BULLY15	-0.106	0.013	0.000	-0.132	-0.080	*
PRESS15	-0.064	0.014	0.000	-0.091	-0.039	*
DUTIES15	0.167	0.013	0.000	0.140	0.192	*

BULLY15 WITH						
PRESS15	0.192	0.013	0.000	0.165	0.217	*
DUTIES15	-0.139	0.013	0.000	-0.164	-0.112	*
PRESS15 WITH						
DUTIES15	-0.168	0.014	0.000	-0.195	-0.141	*
Means						
PHY15	0.002	0.013	0.441	-0.023	0.028	
KES15	0.009	0.014	0.238	-0.017	0.037	
CHOICE15	-0.003	0.014	0.408	-0.030	0.024	
BULLY15	0.003	0.014	0.428	-0.024	0.031	
DUTIES15	-0.004	0.014	0.388	-0.031	0.024	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	-0.502	0.472	0.194	-1.168	0.569	
CLU3	-0.210	0.509	0.351	-1.047	0.867	
KESCAT16 ON						
CLU2	0.220	0.326	0.247	-0.499	0.803	
CLU3	0.257	0.337	0.218	-0.436	0.889	
PRESS15	-0.541	0.261	0.046	-0.909	0.091	
CLU2 WITH						
CLU3	-0.566	0.091	0.000	-0.711	-0.357	*
PRESS15	-0.038	0.137	0.393	-0.306	0.226	
CLU3 WITH						
PRESS15	0.011	0.139	0.472	-0.264	0.290	
Means						
CLU2	0.646	0.144	0.000	0.374	0.946	*
CLU3	0.872	0.158	0.000	0.575	1.180	*

PRESS15	8.731	0.967	0.000	6.926	10.703	*
Intercepts						
S1	0.245	0.878	0.399	-1.740	1.621	
Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.495	0.246	0.000	0.038	0.930	*
S1	0.598	0.280	0.000	0.033	0.984	*

#### R-SQUARE

##### Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.251	0.017	0.000	0.217	0.285

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.505	0.246	0.000	0.070	0.962

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.402	0.280	0.000	0.016	0.967

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

0

CHOICE15

0

0

BULLY15

0

0

PRESS15

0

0

DUTIES15

0

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

0

CHOICE15

0

0

BULLY15

0

0

PRESS15

0

0

DUTIES15

0

0

THETA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0



KESCAT16	0					
PHY15	0	0				
KES15	0	0	0			
CHOICE15	0	0	0	0		
BULLY15	0	0	0	0	0	
PRESS15	0	0	0	0	0	
DUTIES15	0	0	0	0	0	

# THETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	0	
DUTIES15	0	0

# ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0	1	2	3	4

# ALPHA

PRESS15	DUTIES15
<hr/>	<hr/>
0	5

# BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	6	7	8	9
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	0	10

PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI		
	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
49

NU			
KESCAT16	CLU2	CLU3	PRESS15
0	0	0	0

LAMBDA				
S1	KESCAT16	CLU2	CLU3	PRESS15

KESCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
PRESS15	0	0	0	0	0

# THETA

	KESCAT16	CLU2	CLU3	PRESS15
KESCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
PRESS15	0	0	0	0

# ALPHA

S1	KESCAT16	CLU2	CLU3	PRESS15
32	0	33	34	35

# BETA

S1	KESCAT16	CLU2	CLU3	PRESS15
S1	0	36	37	0
KESCAT16	0	38	39	40
CLU2	0	0	0	0
CLU3	0	0	0	0
PRESS15	0	0	0	0

# PSI

S1	KESCAT16	CLU2	CLU3	PRESS15
S1	41			
KESCAT16	0	42		
CLU2	0	0	43	
CLU3	0	0	44	45
PRESS15	0	0	46	47
				48

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<hr/>
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
0.000		0.000	0.000	0.000	0.000

ALPHA		
PRESS15		DUTIES15
0.000		0.000

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15

KESCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.268			
KES15	0.000	0.000	0.048		
CHOICE15	0.000	0.000	0.000	0.549	
BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	<u>0.501</u>	<u></u>
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>1.091</u>

NU				
	KESCAT16	CLU2	CLU3	PRESS15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA					
	S1	KESCAT16	CLU2	CLU3	PRESS15
KESCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	0.000	1.000

THETA				
	KESCAT16	CLU2	CLU3	PRESS15
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
PRESS15	0.000	0.000	0.000	0.000

ALPHA					
	S1	KESCAT16	CLU2	CLU3	PRESS15
	0.000	0.000	0.403	0.469	2.445

BETA					
	S1	KESCAT16	CLU2	CLU3	PRESS15
S1	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000

PSI					
	S1	KESCAT16	CLU2	CLU3	PRESS15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.120		
CLU3	0.000	0.000	0.000	0.125	
PRESS15	0.000	0.000	0.000	0.000	0.501

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity



Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.978999D-04				
2	0.103294D-04	0.193994D-04			
3	-0.180736D-04	-0.716662D-05	0.203820D-03		
4	0.493140D-05	0.394838D-05	-0.876509D-05	0.417141D-04	
5	-0.116317D-04	-0.970734D-05	0.251323D-04	-0.124241D-04	0.154496D-03
6	0.792848D-05	-0.485547D-05	0.112180D-04	-0.732995D-05	0.119548D-04
7	0.473431D-05	0.737614D-05	-0.178941D-04	0.100950D-05	0.222431D-05
8	0.419329D-05	-0.146224D-05	0.169934D-04	0.483333D-05	-0.464594D-05
9	0.974778D-05	0.486901D-05	0.579802D-05	0.181991D-05	-0.597029D-05
10	0.475892D-06	0.533473D-05	0.450437D-05	-0.205083D-05	-0.774432D-06
11	0.303367D-05	0.103983D-05	-0.911732D-05	0.276431D-05	-0.505811D-05
12	-0.765880D-06	0.204242D-06	-0.248770D-05	0.333619D-06	-0.446370D-06
13	0.643365D-07	0.196443D-06	-0.160556D-06	0.421988D-06	0.521007D-06
14	-0.397992D-06	-0.198591D-05	-0.343652D-05	-0.486119D-07	-0.314725D-08
15	0.729192D-06	-0.175622D-07	-0.144949D-05	-0.875661D-06	-0.526665D-06
16	-0.536026D-05	0.775523D-06	0.135142D-04	0.379125D-05	-0.235744D-05
17	-0.109282D-05	-0.507517D-06	-0.911462D-06	-0.130834D-06	-0.325393D-06
18	-0.199409D-06	0.991502D-08	-0.318499D-06	-0.234776D-06	0.697922D-06
19	0.235423D-06	-0.124989D-05	0.311103D-05	-0.124056D-05	-0.761265D-06
20	0.103346D-05	0.453627D-07	0.204530D-06	0.252954D-06	0.464146D-06
21	-0.363502D-06	0.188500D-05	-0.372055D-05	0.174245D-05	-0.125717D-05
22	-0.189180D-06	0.473548D-06	-0.482476D-06	0.170036D-07	-0.747189D-07
23	0.181762D-05	0.103301D-05	-0.472227D-05	0.205262D-05	-0.228894D-05
24	-0.150912D-05	-0.175604D-06	0.103657D-05	-0.237318D-05	0.208058D-05
25	0.705706D-05	0.351943D-05	0.858345D-06	-0.830455D-05	0.164972D-06
26	0.407377D-05	0.521881D-06	0.811421D-06	0.451732D-07	-0.447082D-06
27	-0.710510D-07	0.509304D-06	0.603701D-06	-0.151268D-05	0.509822D-06
28	-0.289355D-05	-0.120013D-05	0.582504D-05	0.117161D-05	-0.414258D-05

29	-0.834125D-06	-0.566356D-08	0.268066D-05	-0.292545D-06	-0.684706D-06
30	0.138364D-05	0.435736D-06	0.755021D-05	-0.168584D-05	0.504728D-05
31	-0.443702D-05	-0.679535D-06	0.452593D-05	0.356298D-05	-0.554124D-06
32	0.283017D-04	0.649422D-05	0.329016D-04	0.351918D-05	0.171025D-04
33	-0.166808D-04	-0.170028D-05	0.615199D-05	0.212106D-04	-0.211389D-04
34	0.186911D-04	0.483951D-05	-0.220426D-05	-0.100001D-05	0.111322D-04
35	0.226345D-04	0.944493D-05	-0.160070D-04	0.138809D-04	-0.115957D-04
36	-0.184711D-04	-0.291980D-05	-0.587448D-04	-0.273287D-05	-0.261311D-04
37	-0.332415D-04	-0.412831D-05	-0.545934D-04	0.206283D-06	-0.192909D-04
38	-0.564138D-05	0.211631D-05	0.511877D-04	-0.933674D-05	-0.121694D-04
39	0.110707D-05	0.136616D-05	0.948430D-04	-0.452826D-05	-0.214863D-04
40	0.483633D-04	0.616282D-05	-0.487897D-04	0.876643D-05	-0.163038D-04
41	-0.272735D-05	-0.131525D-05	-0.100351D-05	-0.848764D-06	0.724409D-06
42	-0.100548D-05	0.690785D-06	0.291492D-06	-0.633699D-06	0.262345D-06
43	-0.762939D-05	-0.640193D-05	-0.779756D-05	-0.195213D-05	-0.150205D-04
44	0.128793D-05	0.102095D-05	0.203784D-06	0.190416D-05	0.168808D-04
45	0.375988D-05	-0.587380D-06	0.166469D-04	-0.876494D-05	-0.219056D-04
46	0.324796D-05	-0.269962D-05	0.101217D-05	0.191495D-05	-0.111838D-04
47	0.224961D-05	0.126800D-05	0.104755D-04	0.258903D-05	0.289741D-05
48	0.424713D-05	0.279813D-05	0.938903D-05	-0.317328D-06	-0.135034D-05
49	0.117534D-03	0.125811D-04	-0.603765D-04	0.603588D-05	-0.593109D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.105374D-02				
7	-0.382368D-03	0.693318D-02			
8	0.771812D-04	0.932896D-05	0.630668D-03		
9	-0.665234D-05	-0.547931D-03	0.146653D-03	0.223155D-02	
10	0.596170D-04	0.979304D-04	-0.502737D-04	0.906734D-04	0.739399D-03
11	-0.143123D-04	0.220966D-04	0.164020D-05	0.470312D-05	-0.140988D-04
12	-0.415212D-05	0.222040D-05	0.439949D-06	-0.414078D-05	-0.400131D-05
13	0.361211D-06	-0.222140D-05	-0.518187D-06	-0.204058D-06	0.709172D-06
14	0.164563D-04	-0.300831D-06	0.956009D-05	0.148142D-04	0.785768D-05
15	0.174796D-05	0.373625D-06	0.551111D-05	0.800446D-05	-0.271217D-05
16	0.255596D-05	0.110906D-03	-0.814716D-05	-0.648135D-04	-0.722136D-06
17	-0.564424D-06	0.200919D-05	0.320253D-05	0.272298D-05	-0.228974D-05
18	0.320696D-06	-0.215460D-05	-0.102907D-07	0.366820D-05	0.129215D-06
19	0.542277D-05	0.484434D-05	0.637271D-05	-0.532819D-05	-0.514391D-05
20	0.172063D-05	0.677048D-06	0.630870D-06	0.468005D-05	0.121236D-05
21	0.205476D-05	-0.126536D-04	-0.334579D-05	-0.193781D-04	-0.190542D-04
22	-0.620770D-05	-0.429603D-05	0.494156D-05	0.249971D-05	-0.262736D-05
23	-0.101049D-05	0.745768D-05	0.140562D-04	0.122419D-04	-0.453971D-05

24	0.107549D-04	-0.583014D-05	-0.984080D-06	0.279560D-05	0.102939D-05
25	0.199418D-04	-0.504674D-04	-0.700373D-05	-0.478198D-04	0.101179D-05
26	-0.194066D-05	0.740865D-05	-0.271397D-05	0.191549D-05	0.341897D-05
27	0.155712D-05	0.396910D-05	0.386109D-05	0.796494D-05	0.818385D-06
28	-0.605590D-05	0.296649D-04	-0.135684D-04	-0.734254D-06	-0.734748D-06
29	0.438202D-05	-0.784257D-06	-0.132399D-05	-0.128682D-04	0.235854D-05
30	-0.118887D-04	-0.120476D-05	-0.326804D-05	0.108766D-04	-0.459370D-05
31	0.302972D-05	0.283918D-04	-0.431139D-05	0.117099D-05	0.300283D-05
32	0.264669D-03	-0.250116D-03	-0.108583D-03	-0.119306D-03	0.740498D-04
33	-0.586726D-07	-0.502832D-04	-0.495537D-05	0.971185D-04	0.421806D-04
34	-0.534175D-04	0.157685D-03	0.265355D-04	-0.113310D-03	-0.118512D-03
35	-0.358612D-04	-0.260314D-04	-0.151864D-04	0.270521D-04	-0.183503D-04
36	-0.236902D-03	0.637041D-04	0.116208D-03	-0.824259D-04	-0.389088D-04
37	-0.335578D-03	0.881625D-04	0.785427D-04	-0.104825D-03	0.121841D-03
38	0.975971D-04	0.660376D-04	-0.966610D-05	-0.136489D-03	-0.710600D-04
39	0.145003D-03	-0.131079D-03	0.367125D-04	-0.142799D-03	-0.411619D-04
40	-0.361724D-04	0.160549D-03	0.232276D-03	-0.811972D-04	-0.400237D-04
41	0.898046D-06	0.218845D-04	0.445001D-05	0.417987D-05	-0.276643D-05
42	0.186463D-05	0.587302D-04	0.780188D-06	0.813444D-05	0.336187D-06
43	0.336820D-07	-0.126589D-03	0.974857D-05	-0.124733D-04	0.203546D-04
44	0.300809D-07	0.891315D-04	-0.309962D-04	0.163094D-04	-0.210665D-04
45	-0.173356D-04	0.686061D-05	0.314718D-04	-0.203591D-04	0.354712D-05
46	-0.191963D-05	0.271140D-04	0.166279D-05	0.347132D-04	-0.150712D-04
47	0.192007D-04	0.572885D-04	0.411833D-05	-0.484674D-04	-0.159623D-04
48	-0.127637D-04	-0.420325D-04	-0.334345D-06	-0.446375D-05	-0.798153D-05
49	0.647056D-04	0.143399D-02	0.541436D-03	-0.289420D-03	-0.200631D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.997803D-04				
12	0.930437D-05	0.992818D-05			
13	0.105290D-05	0.201078D-05	0.357016D-05		
14	-0.127030D-04	-0.457711D-05	-0.945623D-06	0.107132D-03	
15	-0.169871D-05	-0.194171D-05	-0.151129D-05	0.124767D-04	0.202892D-04
16	0.477576D-06	0.587070D-06	0.347653D-05	-0.382045D-04	-0.196882D-04
17	0.289098D-05	0.259220D-05	0.643864D-06	-0.478969D-05	-0.900386D-06
18	0.189795D-06	0.616252D-06	0.771433D-06	0.897739D-07	-0.116126D-05
19	-0.661023D-06	0.201503D-07	-0.664721D-06	0.918213D-05	0.482593D-05
20	-0.678440D-06	-0.251663D-07	-0.275801D-06	-0.160354D-05	-0.768905D-06
21	0.900251D-05	0.539570D-05	0.891294D-06	-0.136000D-05	-0.147548D-06
22	0.100154D-05	0.185961D-05	0.213910D-05	-0.245869D-05	-0.228104D-05
23	-0.199137D-05	-0.105746D-05	-0.243540D-06	0.106125D-04	0.866622D-05

24	0.539392D-06	0.124243D-05	0.820831D-06	-0.416559D-05	-0.842099D-06
25	0.824669D-05	0.179863D-05	0.216011D-05	0.183193D-05	-0.111858D-05
26	-0.791633D-05	-0.588038D-05	-0.122268D-05	0.164102D-04	0.296408D-05
27	-0.245012D-05	-0.132894D-05	-0.173990D-05	0.205542D-05	0.307344D-05
28	0.990230D-05	0.246904D-05	0.935093D-06	-0.228866D-04	-0.122567D-04
29	-0.196933D-05	-0.549466D-06	-0.187389D-06	0.222754D-05	0.597358D-06
30	-0.864468D-05	-0.140362D-05	-0.878136D-06	0.129343D-05	-0.564699D-06
31	0.126978D-04	0.260530D-05	0.666164D-06	-0.814759D-05	-0.266931D-05
32	-0.679707D-05	0.115034D-06	0.218826D-05	-0.363461D-04	-0.138702D-04
33	0.187402D-04	0.143235D-05	-0.312136D-05	0.734034D-05	0.810421D-05
34	-0.876823D-05	0.244487D-05	0.311316D-05	-0.122327D-04	-0.771177D-06
35	0.580208D-05	-0.111454D-05	0.776029D-06	0.331357D-05	0.218858D-05
36	0.208507D-04	0.343597D-06	-0.601087D-05	0.501983D-04	0.254047D-04
37	0.179798D-04	0.327253D-05	0.168880D-05	0.270626D-04	0.272432D-05
38	0.122063D-04	-0.433889D-05	0.361470D-05	-0.218884D-04	-0.364599D-05
39	0.608261D-05	-0.450354D-05	0.916837D-06	0.275228D-05	-0.172033D-04
40	0.356456D-04	0.884478D-05	0.321058D-06	-0.205095D-04	-0.318068D-04
41	0.340235D-05	0.686904D-06	-0.734130D-07	0.172147D-05	-0.296936D-06
42	0.669471D-06	0.545564D-06	0.703090D-06	-0.376131D-06	-0.582704D-06
43	0.102241D-04	-0.521613D-05	0.138327D-05	-0.163201D-04	-0.484047D-05
44	-0.121051D-04	0.484646D-05	-0.152074D-05	0.444774D-05	0.593312D-06
45	0.794929D-05	-0.111434D-04	-0.532928D-06	0.484935D-05	0.266605D-06
46	0.180097D-05	0.111246D-05	0.100579D-05	0.578980D-05	0.251365D-05
47	-0.291471D-05	-0.125807D-05	-0.559035D-06	-0.423940D-05	-0.309561D-05
48	0.274209D-05	-0.389397D-06	0.161616D-06	-0.258441D-05	-0.615316D-06
49	0.884211D-04	0.178178D-04	0.683506D-06	-0.582397D-04	-0.886785D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.461318D-03				
17	0.346393D-05	0.217507D-04			
18	0.140048D-05	0.247541D-05	0.381046D-05		
19	-0.258855D-04	-0.348724D-05	-0.176549D-05	0.441891D-04	
20	0.149513D-05	0.195537D-05	0.144991D-05	-0.277002D-05	0.172834D-04
21	0.272267D-05	0.913963D-05	0.986965D-06	0.343833D-06	-0.944476D-06
22	0.151591D-05	0.169956D-05	0.156837D-05	0.362769D-06	0.144981D-06
23	-0.294109D-04	-0.365240D-05	-0.985151D-06	0.182075D-04	-0.212028D-05
24	0.505477D-05	0.289488D-05	0.264054D-05	-0.435512D-05	0.667070D-05
25	0.289457D-05	0.311659D-05	0.314248D-05	-0.196422D-05	0.378716D-05
26	-0.126660D-04	-0.688307D-05	-0.593122D-06	0.107751D-05	-0.104452D-05
27	-0.783683D-05	-0.179916D-05	-0.946928D-06	0.103912D-05	0.565534D-06
28	0.690195D-04	0.350112D-05	0.376196D-06	-0.170071D-04	0.574498D-06

29	-0.697670D-05	-0.255462D-05	-0.233284D-05	0.682648D-05	-0.381755D-05
30	-0.953437D-05	-0.314391D-05	-0.696078D-06	0.565345D-05	0.159957D-06
31	0.151420D-04	0.321585D-05	0.261081D-06	-0.473155D-05	0.510512D-06
32	0.750791D-04	0.727544D-05	0.513750D-05	0.281271D-05	0.106333D-04
33	-0.497295D-05	-0.165871D-04	-0.282441D-05	0.178106D-04	-0.998403D-06
34	-0.236969D-04	0.239989D-05	-0.372610D-06	-0.970907D-05	-0.235945D-05
35	0.184359D-04	0.328822D-05	0.153968D-05	0.128401D-05	-0.251550D-05
36	-0.731243D-04	-0.136628D-04	-0.862024D-05	0.841988D-05	-0.346700D-05
37	-0.385571D-04	-0.402957D-06	-0.285240D-05	-0.138604D-04	-0.198930D-04
38	-0.707514D-04	0.995482D-05	0.976175D-07	-0.601988D-05	-0.445840D-06
39	0.384945D-04	0.118913D-04	0.289636D-05	-0.882688D-05	-0.112329D-04
40	-0.113800D-03	0.710793D-06	0.519039D-05	-0.120316D-05	-0.403291D-06
41	-0.558589D-05	0.784206D-06	0.470810D-07	0.543601D-06	0.467277D-07
42	-0.254473D-05	0.193809D-06	-0.198851D-06	0.144001D-05	0.233649D-06
43	0.593572D-04	0.233392D-05	-0.117227D-07	-0.496231D-05	-0.458488D-05
44	-0.312637D-04	0.426096D-06	0.102741D-06	0.379759D-05	0.381305D-05
45	0.244816D-04	-0.900506D-05	-0.344360D-07	0.228613D-05	-0.789224D-05
46	-0.428610D-05	0.376639D-05	0.203735D-06	0.111569D-05	-0.176544D-05
47	0.103682D-04	-0.163406D-05	0.491786D-06	0.385666D-06	-0.623535D-07
48	0.153974D-04	-0.950858D-06	-0.492801D-07	0.701047D-05	-0.941253D-06
49	-0.264169D-03	0.124334D-04	0.954553D-05	-0.109583D-04	-0.464142D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.963334D-04				
22	0.114643D-04	0.188301D-04			
23	-0.227880D-04	-0.721725D-05	0.194036D-03		
24	0.513326D-05	0.658216D-05	-0.103079D-04	0.408394D-04	
25	0.184895D-04	0.188272D-04	-0.242791D-04	0.339437D-04	0.355529D-03
26	-0.170727D-04	-0.244909D-05	0.134275D-04	-0.850653D-06	-0.110139D-04
27	-0.347605D-05	-0.322720D-05	0.277085D-05	-0.205130D-05	-0.594950D-06
28	0.548831D-05	-0.981057D-06	-0.325536D-04	0.243453D-05	0.596146D-05
29	-0.239608D-05	-0.164503D-05	0.576035D-05	-0.742853D-05	-0.367037D-05
30	-0.137589D-04	-0.949487D-05	0.302502D-04	-0.140056D-04	-0.621782D-04
31	0.865018D-05	0.434804D-05	-0.155147D-04	0.463676D-05	0.748087D-05
32	-0.880111D-05	-0.997123D-05	-0.387089D-04	0.152085D-04	0.979551D-05
33	-0.184662D-04	-0.123959D-05	-0.206826D-04	0.128186D-05	-0.111563D-04
34	0.507475D-05	0.667676D-05	0.771028D-05	-0.138372D-04	0.238002D-04
35	0.245827D-04	0.303453D-05	-0.238252D-04	-0.370900D-05	0.248444D-04
36	0.175617D-04	0.125569D-04	0.522097D-04	-0.713943D-05	-0.403726D-04
37	0.194209D-04	0.195081D-04	0.346733D-04	-0.119443D-04	0.575043D-04
38	-0.143949D-04	0.551350D-05	0.513207D-05	-0.805469D-06	0.426501D-04

39	0.370122D-05	-0.362169D-05	0.865738D-06	-0.933036D-05	0.389351D-04
40	0.258588D-04	0.147056D-04	0.321633D-04	0.445733D-06	-0.911793D-05
41	0.123056D-05	0.521258D-06	0.364358D-07	0.909240D-07	-0.179403D-05
42	-0.222741D-05	0.167196D-05	-0.251500D-05	-0.477019D-06	-0.237820D-05
43	-0.942674D-05	-0.697003D-05	-0.360834D-04	-0.743578D-05	0.707859D-05
44	0.118601D-05	0.355735D-05	0.733749D-05	0.564097D-05	0.211327D-04
45	-0.101187D-04	-0.404152D-05	-0.273057D-05	0.268027D-05	-0.174017D-04
46	0.478370D-05	0.125217D-05	0.174560D-05	0.319421D-05	0.131045D-05
47	-0.181842D-05	-0.314750D-05	0.615104D-05	-0.252137D-05	-0.101281D-04
48	0.575100D-06	-0.359501D-06	0.274791D-05	-0.237110D-06	-0.942607D-05
49	0.602011D-04	0.358805D-04	0.616821D-04	-0.232792D-05	-0.704815D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.855472D-04				
27	0.950055D-05	0.152378D-04			
28	-0.177829D-04	-0.543635D-05	0.168865D-03		
29	0.472472D-05	0.388541D-05	-0.108693D-04	0.338289D-04	
30	0.167065D-04	0.788431D-05	-0.146686D-04	0.151654D-04	0.156874D-03
31	-0.223221D-04	-0.136087D-04	0.549068D-04	-0.178693D-04	-0.484227D-04
32	0.174376D-04	-0.376681D-05	0.262494D-04	-0.156328D-05	0.192011D-05
33	0.533122D-05	-0.567608D-05	-0.569927D-05	-0.114274D-04	0.217904D-04
34	0.318580D-05	-0.181784D-05	0.121402D-04	-0.693356D-05	-0.137936D-04
35	0.142234D-05	0.440129D-08	-0.738914D-05	0.133507D-05	-0.113450D-04
36	-0.160951D-04	0.819993D-05	-0.474990D-04	-0.201324D-05	-0.374911D-05
37	-0.191251D-04	-0.238543D-05	-0.172495D-04	0.121512D-04	-0.132918D-04
38	-0.816397D-05	0.214487D-05	0.729422D-05	0.202172D-04	-0.371387D-05
39	0.130004D-04	0.781616D-07	0.731454D-05	0.128640D-04	-0.307253D-04
40	-0.943199D-05	-0.779558D-05	-0.719651D-04	0.345781D-04	0.732328D-04
41	0.919376D-06	0.893248D-06	-0.294889D-05	0.806223D-06	-0.101582D-05
42	-0.154999D-06	-0.157106D-06	0.168087D-05	0.870271D-06	0.156271D-05
43	0.708995D-06	-0.919182D-05	0.337789D-04	0.271315D-05	0.127653D-05
44	-0.146915D-05	0.545751D-05	-0.150462D-04	0.491970D-05	0.109366D-04
45	0.478187D-05	-0.243673D-05	0.110464D-04	-0.882176D-05	-0.307055D-04
46	-0.571063D-05	-0.292864D-05	0.210180D-05	-0.112594D-05	-0.696400D-05
47	-0.735489D-06	0.339468D-05	-0.311123D-05	0.125439D-05	0.100179D-04
48	0.292090D-05	0.471629D-07	-0.150712D-05	-0.728400D-06	-0.125114D-05
49	-0.272374D-04	-0.173089D-04	-0.172767D-03	0.102717D-03	0.167426D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

31	32	33	34	35
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31	0.262125D-03				
32	0.196627D-04	0.592907D-02			
33	-0.722579D-05	0.141955D-03	0.395700D-02		
34	0.359187D-04	-0.157239D-03	-0.242417D-02	0.477606D-02	
35	0.598088D-05	-0.939749D-04	-0.114343D-04	0.503685D-04	0.159186D-02
36	-0.263960D-04	-0.609092D-02	-0.201952D-03	0.187016D-03	0.111330D-03
37	-0.637413D-05	-0.595123D-02	-0.220072D-03	0.154055D-03	0.147886D-03
38	0.170051D-04	0.400300D-03	-0.260224D-03	-0.219137D-03	-0.160442D-03
39	0.313607D-04	0.607698D-03	-0.154620D-03	-0.197509D-03	-0.365737D-04
40	-0.662206D-04	-0.355132D-03	0.105956D-03	0.201878D-03	-0.847535D-04
41	0.764332D-06	-0.284280D-04	-0.114306D-04	0.104528D-04	-0.177968D-06
42	0.125491D-05	0.161859D-04	-0.400219D-05	0.141575D-04	-0.631761D-05
43	0.186018D-04	0.212314D-04	0.285250D-04	-0.491278D-04	-0.661480D-04
44	0.987881D-06	-0.543882D-04	0.343804D-04	0.355808D-05	0.454978D-04
45	-0.130209D-04	0.289749D-04	0.399986D-04	-0.579423D-04	-0.841277D-04
46	-0.218219D-04	-0.890535D-05	-0.533016D-04	0.294784D-04	-0.114601D-04
47	0.982144D-05	-0.491100D-04	-0.248671D-04	0.274824D-05	-0.366670D-05
48	0.479775D-05	-0.332317D-04	0.465911D-04	-0.202883D-04	0.354017D-05
49	-0.145805D-03	-0.343210D-03	0.454753D-04	0.325985D-03	-0.302392D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.857973D-02				
37	0.615700D-02	0.816318D-02			
38	-0.523821D-03	-0.100533D-03	0.776131D-02		
39	-0.594629D-03	-0.504547D-03	0.514854D-02	0.726448D-02	
40	0.999792D-04	0.853366D-04	-0.773287D-03	-0.571737D-03	0.203494D-01
41	0.512967D-04	0.306252D-04	-0.318154D-05	0.770881D-06	0.344400D-04
42	-0.299896D-04	-0.167739D-04	0.610628D-04	0.101215D-04	0.488397D-04
43	-0.318095D-05	-0.597900D-04	-0.536362D-04	-0.467829D-05	0.109358D-03
44	0.310993D-04	0.297110D-04	-0.170564D-04	-0.838196D-04	-0.209712D-03
45	0.475727D-04	-0.449111D-06	0.845639D-04	0.158485D-03	0.139151D-03
46	0.159837D-04	0.231124D-04	0.394584D-04	0.681062D-06	-0.244870D-04
47	0.176485D-04	0.562265D-04	0.740784D-05	0.122093D-03	0.791481D-04
48	0.524231D-04	-0.200257D-04	-0.216246D-04	-0.149877D-04	0.839112D-04
49	-0.323277D-03	-0.106047D-03	0.355488D-02	0.405118D-02	0.486241D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45

41	0.337406D-04				
42	-0.125973D-05	0.533224D-04			
43	-0.785917D-05	0.697250D-05	0.203611D-02		
44	0.216350D-05	-0.780328D-05	-0.121441D-02	0.152528D-02	
45	-0.750626D-05	0.144088D-04	0.731516D-03	-0.141421D-02	0.269417D-02
46	0.701275D-06	-0.109043D-05	-0.336682D-04	0.157198D-04	-0.349341D-05
47	0.113288D-07	-0.307622D-05	0.396290D-04	-0.297402D-04	0.272693D-04
48	-0.599077D-07	0.355658D-06	-0.442144D-05	0.913006D-05	0.117155D-04
49	0.100918D-03	0.204676D-03	0.193200D-03	-0.542474D-03	0.466986D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.353063D-03			
47	-0.192667D-03	0.411563D-03		
48	-0.205503D-04	-0.573314D-05	0.291003D-03	
49	-0.138224D-04	0.238376D-03	0.190453D-03	0.121946D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.237	1.000			
3	-0.128	-0.114	1.000		
4	0.077	0.139	-0.095	1.000	
5	-0.095	-0.177	0.142	-0.155	1.000
6	0.025	-0.034	0.024	-0.035	0.030
7	0.006	0.020	-0.015	0.002	0.002
8	0.017	-0.013	0.047	0.030	-0.015
9	0.021	0.023	0.009	0.006	-0.010
10	0.002	0.045	0.012	-0.012	-0.002
11	0.031	0.024	-0.064	0.043	-0.041
12	-0.025	0.015	-0.055	0.016	-0.011
13	0.003	0.024	-0.006	0.035	0.022
14	-0.004	-0.044	-0.023	-0.001	0.000
15	0.016	-0.001	-0.023	-0.030	-0.009
16	-0.025	0.008	0.044	0.027	-0.009
17	-0.024	-0.025	-0.014	-0.004	-0.006
18	-0.010	0.001	-0.011	-0.019	0.029
19	0.004	-0.043	0.033	-0.029	-0.009
20	0.025	0.002	0.003	0.009	0.009
21	-0.004	0.044	-0.027	0.027	-0.010



22	-0.004	0.025	-0.008	0.001	-0.001
23	0.013	0.017	-0.024	0.023	-0.013
24	-0.024	-0.006	0.011	-0.057	0.026
25	0.038	0.042	0.003	-0.068	0.001
26	0.045	0.013	0.006	0.001	-0.004
27	-0.002	0.030	0.011	-0.060	0.011
28	-0.023	-0.021	0.031	0.014	-0.026
29	-0.014	0.000	0.032	-0.008	-0.009
30	0.011	0.008	0.042	-0.021	0.032
31	-0.028	-0.010	0.020	0.034	-0.003
32	0.037	0.019	0.030	0.007	0.018
33	-0.027	-0.006	0.007	0.052	-0.027
34	0.027	0.016	-0.002	-0.002	0.013
35	0.057	0.054	-0.028	0.054	-0.023
36	-0.020	-0.007	-0.044	-0.005	-0.023
37	-0.037	-0.010	-0.042	0.000	-0.017
38	-0.006	0.005	0.041	-0.016	-0.011
39	0.001	0.004	0.078	-0.008	-0.020
40	0.034	0.010	-0.024	0.010	-0.009
41	-0.047	-0.051	-0.012	-0.023	0.010
42	-0.014	0.021	0.003	-0.013	0.003
43	-0.017	-0.032	-0.012	-0.007	-0.027
44	0.003	0.006	0.000	0.008	0.035
45	0.007	-0.003	0.022	-0.026	-0.034
46	0.017	-0.033	0.004	0.016	-0.048
47	0.011	0.014	0.036	0.020	0.011
48	0.025	0.037	0.039	-0.003	-0.006
49	0.034	0.008	-0.012	0.003	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.141	1.000			
8	0.095	0.004	1.000		
9	-0.004	-0.139	0.124	1.000	
10	0.068	0.043	-0.074	0.071	1.000
11	-0.044	0.027	0.007	0.010	-0.052
12	-0.041	0.008	0.006	-0.028	-0.047
13	0.006	-0.014	-0.011	-0.002	0.014
14	0.049	0.000	0.037	0.030	0.028
15	0.012	0.001	0.049	0.038	-0.022
16	0.004	0.062	-0.015	-0.064	-0.001

17	-0.004	0.005	0.027	0.012	-0.018
18	0.005	-0.013	0.000	0.040	0.002
19	0.025	0.009	0.038	-0.017	-0.028
20	0.013	0.002	0.006	0.024	0.011
21	0.006	-0.015	-0.014	-0.042	-0.071
22	-0.044	-0.012	0.045	0.012	-0.022
23	-0.002	0.006	0.040	0.019	-0.012
24	0.052	-0.011	-0.006	0.009	0.006
25	0.033	-0.032	-0.015	-0.054	0.002
26	-0.006	0.010	-0.012	0.004	0.014
27	0.012	0.012	0.039	0.043	0.008
28	-0.014	0.027	-0.042	-0.001	-0.002
29	0.023	-0.002	-0.009	-0.047	0.015
30	-0.029	-0.001	-0.010	0.018	-0.013
31	0.006	0.021	-0.011	0.002	0.007
32	0.106	-0.039	-0.056	-0.033	0.035
33	0.000	-0.010	-0.003	0.033	0.025
34	-0.024	0.027	0.015	-0.035	-0.063
35	-0.028	-0.008	-0.015	0.014	-0.017
36	-0.079	0.008	0.050	-0.019	-0.015
37	-0.114	0.012	0.035	-0.025	0.050
38	0.034	0.009	-0.004	-0.033	-0.030
39	0.052	-0.018	0.017	-0.035	-0.018
40	-0.008	0.014	0.065	-0.012	-0.010
41	0.005	0.045	0.031	0.015	-0.018
42	0.008	0.097	0.004	0.024	0.002
43	0.000	-0.034	0.009	-0.006	0.017
44	0.000	0.027	-0.032	0.009	-0.020
45	-0.010	0.002	0.024	-0.008	0.003
46	-0.003	0.017	0.004	0.039	-0.029
47	0.029	0.034	0.008	-0.051	-0.029
48	-0.023	-0.030	-0.001	-0.006	-0.017
49	0.006	0.049	0.062	-0.018	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.296	1.000			
13	0.056	0.338	1.000		
14	-0.123	-0.140	-0.048	1.000	
15	-0.038	-0.137	-0.178	0.268	1.000
16	0.002	0.009	0.086	-0.172	-0.204

17	0.062	0.176	0.073	-0.099	-0.043
18	0.010	0.100	0.209	0.004	-0.132
19	-0.010	0.001	-0.053	0.133	0.161
20	-0.016	-0.002	-0.035	-0.037	-0.041
21	0.092	0.174	0.048	-0.013	-0.003
22	0.023	0.136	0.261	-0.055	-0.117
23	-0.014	-0.024	-0.009	0.074	0.138
24	0.008	0.062	0.068	-0.063	-0.029
25	0.044	0.030	0.061	0.009	-0.013
26	-0.086	-0.202	-0.070	0.171	0.071
27	-0.063	-0.108	-0.236	0.051	0.175
28	0.076	0.060	0.038	-0.170	-0.209
29	-0.034	-0.030	-0.017	0.037	0.023
30	-0.069	-0.036	-0.037	0.010	-0.010
31	0.079	0.051	0.022	-0.049	-0.037
32	-0.009	0.000	0.015	-0.046	-0.040
33	0.030	0.007	-0.026	0.011	0.029
34	-0.013	0.011	0.024	-0.017	-0.002
35	0.015	-0.009	0.010	0.008	0.012
36	0.023	0.001	-0.034	0.052	0.061
37	0.020	0.011	0.010	0.029	0.007
38	0.014	-0.016	0.022	-0.024	-0.009
39	0.007	-0.017	0.006	0.003	-0.045
40	0.025	0.020	0.001	-0.014	-0.050
41	0.059	0.038	-0.007	0.029	-0.011
42	0.009	0.024	0.051	-0.005	-0.018
43	0.023	-0.037	0.016	-0.035	-0.024
44	-0.031	0.039	-0.021	0.011	0.003
45	0.015	-0.068	-0.005	0.009	0.001
46	0.010	0.019	0.028	0.030	0.030
47	-0.014	-0.020	-0.015	-0.020	-0.034
48	0.016	-0.007	0.005	-0.015	-0.008
49	0.025	0.016	0.001	-0.016	-0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.035	1.000			
18	0.033	0.272	1.000		
19	-0.181	-0.112	-0.136	1.000	
20	0.017	0.101	0.179	-0.100	1.000
21	0.013	0.200	0.052	0.005	-0.023

22	0.016	0.084	0.185	0.013	0.008
23	-0.098	-0.056	-0.036	0.197	-0.037
24	0.037	0.097	0.212	-0.103	0.251
25	0.007	0.035	0.085	-0.016	0.048
26	-0.064	-0.160	-0.033	0.018	-0.027
27	-0.093	-0.099	-0.124	0.040	0.035
28	0.247	0.058	0.015	-0.197	0.011
29	-0.056	-0.094	-0.205	0.177	-0.158
30	-0.035	-0.054	-0.028	0.068	0.003
31	0.044	0.043	0.008	-0.044	0.008
32	0.045	0.020	0.034	0.005	0.033
33	-0.004	-0.057	-0.023	0.043	-0.004
34	-0.016	0.007	-0.003	-0.021	-0.008
35	0.022	0.018	0.020	0.005	-0.015
36	-0.037	-0.032	-0.048	0.014	-0.009
37	-0.020	-0.001	-0.016	-0.023	-0.053
38	-0.037	0.024	0.001	-0.010	-0.001
39	0.021	0.030	0.017	-0.016	-0.032
40	-0.037	0.001	0.019	-0.001	-0.001
41	-0.045	0.029	0.004	0.014	0.002
42	-0.016	0.006	-0.014	0.030	0.008
43	0.061	0.011	0.000	-0.017	-0.024
44	-0.037	0.002	0.001	0.015	0.023
45	0.022	-0.037	0.000	0.007	-0.037
46	-0.011	0.043	0.006	0.009	-0.023
47	0.024	-0.017	0.012	0.003	-0.001
48	0.042	-0.012	-0.001	0.062	-0.013
49	-0.035	0.008	0.014	-0.005	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.269	1.000			
23	-0.167	-0.119	1.000		
24	0.082	0.237	-0.116	1.000	
25	0.100	0.230	-0.092	0.282	1.000
26	-0.188	-0.061	0.104	-0.014	-0.063
27	-0.091	-0.191	0.051	-0.082	-0.008
28	0.043	-0.017	-0.180	0.029	0.024
29	-0.042	-0.065	0.071	-0.200	-0.033
30	-0.112	-0.175	0.173	-0.175	-0.263
31	0.054	0.062	-0.069	0.045	0.025

32	-0.012	-0.030	-0.036	0.031	0.007
33	-0.030	-0.005	-0.024	0.003	-0.009
34	0.007	0.022	0.008	-0.031	0.018
35	0.063	0.018	-0.043	-0.015	0.033
36	0.019	0.031	0.040	-0.012	-0.023
37	0.022	0.050	0.028	-0.021	0.034
38	-0.017	0.014	0.004	-0.001	0.026
39	0.004	-0.010	0.001	-0.017	0.024
40	0.018	0.024	0.016	0.000	-0.003
41	0.022	0.021	0.000	0.002	-0.016
42	-0.031	0.053	-0.025	-0.010	-0.017
43	-0.021	-0.036	-0.057	-0.026	0.008
44	0.003	0.021	0.013	0.023	0.029
45	-0.020	-0.018	-0.004	0.008	-0.018
46	0.026	0.015	0.007	0.027	0.004
47	-0.009	-0.036	0.022	-0.019	-0.026
48	0.003	-0.005	0.012	-0.002	-0.029
49	0.018	0.024	0.013	-0.001	0.000

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.263	1.000			
28	-0.148	-0.107	1.000		
29	0.088	0.171	-0.144	1.000	
30	0.144	0.161	-0.090	0.208	1.000
31	-0.149	-0.215	0.261	-0.190	-0.239
32	0.024	-0.013	0.026	-0.003	0.002
33	0.009	-0.023	-0.007	-0.031	0.028
34	0.005	-0.007	0.014	-0.017	-0.016
35	0.004	0.000	-0.014	0.006	-0.023
36	-0.019	0.023	-0.039	-0.004	-0.003
37	-0.023	-0.007	-0.015	0.023	-0.012
38	-0.010	0.006	0.006	0.039	-0.003
39	0.016	0.000	0.007	0.026	-0.029
40	-0.007	-0.014	-0.039	0.042	0.041
41	0.017	0.039	-0.039	0.024	-0.014
42	-0.002	-0.006	0.018	0.020	0.017
43	0.002	-0.052	0.058	0.010	0.002
44	-0.004	0.036	-0.030	0.022	0.022
45	0.010	-0.012	0.016	-0.029	-0.047
46	-0.033	-0.040	0.009	-0.010	-0.030

47	-0.004	0.043	-0.012	0.011	0.039
48	0.019	0.001	-0.007	-0.007	-0.006
49	-0.008	-0.013	-0.038	0.051	0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.016	1.000			
33	-0.007	0.029	1.000		
34	0.032	-0.030	-0.558	1.000	
35	0.009	-0.031	-0.005	0.018	1.000
36	-0.018	-0.854	-0.035	0.029	0.030
37	-0.004	-0.855	-0.039	0.025	0.041
38	0.012	0.059	-0.047	-0.036	-0.046
39	0.023	0.093	-0.029	-0.034	-0.011
40	-0.029	-0.032	0.012	0.020	-0.015
41	0.008	-0.064	-0.031	0.026	-0.001
42	0.011	0.029	-0.009	0.028	-0.022
43	0.025	0.006	0.010	-0.016	-0.037
44	0.002	-0.018	0.014	0.001	0.029
45	-0.015	0.007	0.012	-0.016	-0.041
46	-0.072	-0.006	-0.045	0.023	-0.015
47	0.030	-0.031	-0.019	0.002	-0.005
48	0.017	-0.025	0.043	-0.017	0.005
49	-0.026	-0.013	0.002	0.014	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.736	1.000			
38	-0.064	-0.013	1.000		
39	-0.075	-0.066	0.686	1.000	
40	0.008	0.007	-0.062	-0.047	1.000
41	0.095	0.058	-0.006	0.002	0.042
42	-0.044	-0.025	0.095	0.016	0.047
43	-0.001	-0.015	-0.013	-0.001	0.017
44	0.009	0.008	-0.005	-0.025	-0.038
45	0.010	0.000	0.018	0.036	0.019
46	0.009	0.014	0.024	0.000	-0.009
47	0.009	0.031	0.004	0.071	0.027

48	0.033	-0.013	-0.014	-0.010	0.034
49	-0.010	-0.003	0.116	0.136	0.976

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.030	1.000			
43	-0.030	0.021	1.000		
44	0.010	-0.027	-0.689	1.000	
45	-0.025	0.038	0.312	-0.698	1.000
46	0.006	-0.008	-0.040	0.021	-0.004
47	0.000	-0.021	0.043	-0.038	0.026
48	-0.001	0.003	-0.006	0.014	0.013
49	0.050	0.080	0.012	-0.040	0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.505	1.000		
48	-0.064	-0.017	1.000	
49	-0.002	0.034	0.032	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.022	38
200	1.008	49
300	1.015	32
400	1.004	36
500	1.008	36

600	1.003	32
700	1.007	39
800	1.007	36
900	1.002	32
1000	1.003	1



This is the interaction between latent profile categories and role clarity on worsening distress

#### SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	5855

Number of dependent variables	2
Number of independent variables	7
Number of continuous latent variables	1

#### Observed dependent variables

Continuous  
DUTIES15

Binary and ordered categorical (ordinal)  
KESCAT16

Observed independent variables

PHY15	KES15	CLU2	CLU3	CHOICE15	BULLY15
PRESS15					

Continuous latent variables  
S1

#### Variables with special functions

Cluster variable      CID15

Within variables

PHY15	KES15	CHOICE15	BULLY15	PRESS15
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Between variables

CLU2	CLU3
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Centering (GRANDMEAN)

PHY15	KES15	CHOICE15	BULLY15	PRESS15
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Estimator	BAYES
Specifications for Bayesian Estimation	
Point estimate	MEDIAN
Number of Markov chain Monte Carlo (MCMC) chains	3

Random seed for the first chain	0
Starting value information	UNPERTURBED
Algorithm used for Markov chain Monte Carlo	GIBBS (PX1)
Convergence criterion	0.100D-01
Maximum number of iterations	50000
K-th iteration used for thinning	20
Link	PROBIT

Input data file(s)  
multicomponent for mplus cat.dat  
Input data format FREE

#### SUMMARY OF DATA

Number of clusters	58
--------------------	----

Size (s)	Cluster ID with Size s
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7	22
17	166
20	80
26	71 74 205
29	65
31	192
33	228
37	182 106
39	72
41	170 181
42	50 30
43	75
45	173
47	226 165
48	108
50	107 114
51	81
52	40
55	84 92
57	162
59	206
61	61 83 116
62	36 93 169
63	69
64	4

69	68
73	174 152
74	6 154
75	145
89	98
90	178 2
95	144
100	156
104	202
106	142
134	122
186	24
192	209
246	204
278	125
405	217
780	110
873	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 9

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	0.950	0.950	0.950	0.950	
KES15	0.919	0.919	0.919	0.919	0.919
CHOICE15	0.913	0.913	0.913	0.913	0.913
BULLY15	0.913	0.913	0.913	0.913	0.913
PRESS15	0.913	0.913	0.913	0.913	0.913
DUTIES15	0.913	0.913	0.913	0.913	0.913

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.913			
BULLY15	0.912	0.913		
PRESS15	0.913	0.912	0.913	
DUTIES15	0.913	0.913	0.913	0.913

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16			
Category 1	0.877	5135.000	
Category 2	0.123	720.000	

#### UNIVARIATE SAMPLE STATISTICS

##### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size		Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2		0.310	0.820	0.000	68.97%	0.000	0.000	0.000
	58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3		0.448	0.208	0.000	55.17%	0.000	0.000	0.000
	58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15		0.000	0.526	-0.865	32.48%	-0.865	0.135	0.135
	5563.000	0.536	0.021	3.135	0.07%	0.135	0.135	
KES15		0.000	0.475	-0.374	22.78%	-0.374	-0.207	-0.041
	5382.000	0.095	-0.842	0.626	6.60%	-0.041	0.293	
CHOICE15		0.000	-0.400	-2.221	7.67%	-1.221	-0.221	-0.221
	5345.000	1.097	-0.356	1.779	8.62%	0.779	0.779	
BULLY15		0.000	3.522	-0.153	88.29%	-0.153	-0.153	-0.153
	5344.000	0.216	14.164	3.847	0.09%	-0.153	-0.153	
PRESS15		0.000	0.267	-1.445	19.70%	-0.445	-0.445	-0.445
	5345.000	1.001	-0.357	2.555	2.75%	0.555	0.555	
DUTIES15		4.149	-1.296	1.000	2.34%	4.000	4.000	4.000
	5347.000	0.828	1.939	5.000	39.74%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

# MODEL FIT INFORMATION

Number of Free Parameters

49

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.134	0.033	0.000	0.073	0.204	*
CHOICE15	-0.057	0.025	0.009	-0.107	-0.008	*
PRESS15	-0.028	0.026	0.145	-0.080	0.022	
BULLY15	0.112	0.048	0.005	0.022	0.206	*
KES15	1.622	0.085	0.000	1.454	1.794	*
KES15 WITH						
PHY15	0.055	0.003	0.000	0.048	0.061	*
CHOICE15	-0.036	0.005	0.000	-0.045	-0.028	*
BULLY15	0.022	0.002	0.000	0.018	0.026	*
PRESS15	0.053	0.004	0.000	0.044	0.062	*
DUTIES15	-0.049	0.004	0.000	-0.057	-0.042	*
PHY15 WITH						
CHOICE15	-0.092	0.010	0.000	-0.112	-0.072	*
BULLY15	0.025	0.005	0.000	0.016	0.034	*
PRESS15	0.063	0.010	0.000	0.043	0.082	*
DUTIES15	-0.054	0.009	0.000	-0.072	-0.036	*
CHOICE15 WITH						
BULLY15	-0.052	0.007	0.000	-0.064	-0.039	*
PRESS15	-0.078	0.014	0.000	-0.107	-0.051	*
DUTIES15	0.158	0.013	0.000	0.131	0.183	*

BULLY15 WITH						
PRESS15	0.091	0.007	0.000	0.078	0.103	*
DUTIES15	-0.057	0.006	0.000	-0.068	-0.045	*
PRESS15 WITH						
DUTIES15	-0.153	0.013	0.000	-0.180	-0.129	*
Means						
PHY15	0.001	0.010	0.451	-0.017	0.021	
KES15	0.003	0.004	0.234	-0.006	0.012	
CHOICE15	-0.003	0.014	0.411	-0.030	0.026	
BULLY15	0.001	0.006	0.426	-0.011	0.015	
PRESS15	0.001	0.014	0.461	-0.025	0.028	
Variances						
PHY15	0.536	0.010	0.000	0.517	0.556	*
KES15	0.096	0.002	0.000	0.092	0.100	*
CHOICE15	1.098	0.021	0.000	1.058	1.143	*
BULLY15	0.216	0.004	0.000	0.208	0.224	*
PRESS15	1.002	0.019	0.000	0.965	1.041	*
DUTIES15	0.816	0.016	0.000	0.787	0.851	*
Between Level						
S1 ON						
CLU2	0.013	0.106	0.445	-0.190	0.237	
CLU3	0.051	0.100	0.297	-0.139	0.244	
KESCAT16 ON						
CLU2	0.054	0.094	0.277	-0.132	0.240	
CLU3	0.060	0.088	0.231	-0.111	0.235	
DUTIES15	-0.208	0.252	0.182	-0.732	0.263	
CLU2 WITH						
CLU3	-0.137	0.039	0.000	-0.226	-0.078	*
DUTIES15	0.014	0.014	0.138	-0.012	0.044	
CLU3 WITH						
DUTIES15	-0.008	0.015	0.293	-0.041	0.022	
Means						
CLU2	0.311	0.063	0.000	0.192	0.432	*
CLU3	0.446	0.069	0.000	0.310	0.582	*

DUTIES15	4.173	0.031	0.000	4.113	4.235	*
Intercepts						
S1	-0.114	0.086	0.091	-0.284	0.056	
Thresholds						
KESCAT16\$1	0.545	1.046	0.298	-1.622	2.529	
Variances						
CLU2	0.229	0.045	0.000	0.162	0.339	*
CLU3	0.261	0.052	0.000	0.188	0.387	*
DUTIES15	0.039	0.009	0.000	0.026	0.062	*
Residual Variances						
KESCAT16	0.012	0.009	0.000	0.001	0.034	*
S1	0.014	0.013	0.000	0.001	0.050	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON						
DUTIES15	-0.065	0.025	0.005	-0.115	-0.015	*
KESCAT16 ON						
PHY15	0.085	0.020	0.000	0.045	0.127	*
CHOICE15	-0.051	0.022	0.009	-0.096	-0.008	*
PRESS15	-0.024	0.023	0.142	-0.070	0.018	
BULLY15	0.045	0.019	0.005	0.009	0.083	*
KES15	0.434	0.019	0.000	0.395	0.471	*
KES15 WITH						
PHY15	0.241	0.013	0.000	0.215	0.265	*
CHOICE15	-0.112	0.013	0.000	-0.139	-0.087	*
BULLY15	0.154	0.013	0.000	0.128	0.180	*
PRESS15	0.172	0.014	0.000	0.145	0.198	*
DUTIES15	-0.176	0.014	0.000	-0.203	-0.150	*

PHY15	WITH					
CHOICE15		-0.120	0.013	0.000	-0.145	-0.094 *
BULLY15		0.072	0.013	0.000	0.046	0.099 *
PRESS15		0.086	0.014	0.000	0.059	0.112 *
DUTIES15		-0.082	0.014	0.000	-0.109	-0.055 *
CHOICE15	WITH					
BULLY15		-0.106	0.013	0.000	-0.132	-0.080 *
PRESS15		-0.074	0.013	0.000	-0.100	-0.049 *
DUTIES15		0.167	0.014	0.000	0.139	0.193 *
BULLY15	WITH					
PRESS15		0.195	0.013	0.000	0.169	0.220 *
DUTIES15		-0.136	0.014	0.000	-0.161	-0.108 *
PRESS15	WITH					
DUTIES15		-0.169	0.014	0.000	-0.198	-0.142 *
Means						
PHY15		0.002	0.013	0.438	-0.023	0.029
KES15		0.010	0.014	0.237	-0.017	0.037
CHOICE15		-0.003	0.014	0.406	-0.029	0.024
BULLY15		0.003	0.014	0.424	-0.024	0.030
PRESS15		0.001	0.014	0.459	-0.025	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
S1	ON					
CLU2		0.048	0.386	0.445	-0.770	0.714
CLU3		0.214	0.390	0.297	-0.577	0.920
KESCAT16	ON					
CLU2		0.202	0.331	0.277	-0.485	0.769
CLU3		0.226	0.334	0.231	-0.424	0.864
DUTIES15		-0.316	0.330	0.182	-0.811	0.458



CLU2	WITH						
CLU3		-0.565	0.092	0.000	-0.713	-0.355	*
DUTIES15		0.154	0.139	0.138	-0.123	0.412	
CLU3	WITH						
DUTIES15		-0.078	0.144	0.293	-0.361	0.211	
Means							
CLU2		0.648	0.145	0.000	0.379	0.941	*
CLU3		0.871	0.158	0.000	0.578	1.182	*
DUTIES15		21.274	2.303	0.000	16.835	26.169	*
Intercepts							
S1		-0.905	0.716	0.091	-2.412	0.413	
Variances							
CLU2		1.000	0.000	0.000	1.000	1.000	
CLU3		1.000	0.000	0.000	1.000	1.000	
DUTIES15		1.000	0.000	0.000	1.000	1.000	
Residual Variances							
KESCAT16		0.664	0.214	0.000	0.174	0.964	*
S1		0.836	0.195	0.000	0.268	0.994	*

#### R-SQUARE

##### Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.256	0.018	0.000	0.221	0.292

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.336	0.214	0.000	0.036	0.826

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%

S1	0.164	0.195	0.000	0.006	0.732
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TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU	KESCAT16
_____	_____
	0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	0	0	0	0

NU	PRESS15	DUTIES15
	_____	_____
	0	0

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
	_____	_____
KESCAT16	0	0

PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u>          </u>
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA		
	PRESS15	DUTIES15
	<u>5</u>	<u>0</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
PHY15	0	0	0	0	0

KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
KESCAT16	10	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

PSI

	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU

KESCAT16

NU

KESCAT16	CLU2	CLU3	DUTIES15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

LAMBDA

S1	KESCAT16	CLU2	CLU3	DUTIES15
KESCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
CLU2	0	0	0	0
CLU3	0	0	0	0
DUTIES15	0	0	0	0

THETA

KESCAT16	CLU2	CLU3	DUTIES15
KESCAT16	<hr/> 0	<hr/>	<hr/>
CLU2	0	0	
CLU3	0	0	
DUTIES15	0	0	0

ALPHA

S1	KESCAT16	CLU2	CLU3	DUTIES15
<hr/> 32	<hr/> 0	<hr/> 33	<hr/> 34	<hr/> 35

BETA

S1	KESCAT16	CLU2	CLU3	DUTIES15
S1	<hr/> 0	<hr/> 0	<hr/> 36	<hr/> 37
KESCAT16	0	0	38	39
CLU2	0	0	0	0
CLU3	0	0	0	0
DUTIES15	0	0	0	0

PSI

	S1	KESCAT16	CLU2	CLU3	DUTIES15
S1	41				
KESCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
DUTIES15	0	0	46	47	48

STARTING VALUES FOR WITHIN

TAU
KESCAT16
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
--------	---------	----------

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15

KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.268			
KES15	0.000	0.000	0.048		
CHOICE15	0.000	0.000	0.000	0.549	
BULLY15	0.000	0.000	0.000	0.000	0.108
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.414

STARTING VALUES FOR BETWEEN

TAU



KESCAT16

1.091

NU

KESCAT16

CLU2

CLU3

DUTIES15

0.000

0.000

0.000

0.000

LAMBDA

S1

KESCAT16

CLU2

CLU3

DUTIES15

KESCAT16 0.000

1.000

0.000

0.000

0.000

CLU2 0.000

0.000

1.000

0.000

0.000

CLU3 0.000

0.000

0.000

1.000

0.000

DUTIES15 0.000

0.000

0.000

0.000

1.000

THETA

KESCAT16

CLU2

CLU3

DUTIES15

KESCAT16 0.000

0.000

0.000

0.000

CLU2 0.000

0.000

0.000

0.000

CLU3 0.000

0.000

0.000

0.000

DUTIES15 0.000

0.000

0.000

0.000

ALPHA

S1

KESCAT16

CLU2

CLU3

DUTIES15

0.000

0.000

0.403

0.469

4.149

BETA

S1

KESCAT16

CLU2

CLU3

DUTIES15

S1 0.000

0.000

0.000

0.000

0.000

KESCAT16 0.000

0.000

0.000

0.000

0.000

CLU2 0.000

0.000

0.000

0.000

0.000

CLU3 0.000

0.000

0.000

0.000

0.000

DUTIES15 0.000

0.000

0.000

0.000

0.000

	PSI				
	S1	KESCAT16	CLU2	CLU3	DUTIES15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.120		
CLU3	0.000	0.000	0.000	0.125	
DUTIES15	0.000	0.000	0.000	0.000	0.414

PRIORS FOR ALL PARAMETERS

PRIOR MEAN

PRIOR VARIANCE

PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity

Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.977149D-04				
2	0.102385D-04	0.194971D-04			
3	-0.172200D-04	-0.651821D-05	0.201606D-03		
4	0.480705D-05	0.416597D-05	-0.832607D-05	0.420245D-04	
5	0.993432D-05	0.108421D-04	-0.166121D-04	0.160995D-04	0.186799D-03
6	0.103118D-04	-0.358014D-05	0.926080D-05	-0.581164D-05	0.424255D-05
7	0.172380D-04	0.139929D-04	-0.390384D-04	0.163834D-04	0.217546D-04
8	0.359751D-05	-0.189435D-05	0.193497D-04	0.312262D-05	-0.651167D-05
9	0.116271D-04	0.437982D-05	-0.247272D-06	0.577789D-05	-0.195361D-04
10	-0.637703D-05	0.328941D-05	0.737180D-05	-0.371649D-05	-0.975895D-06
11	0.245061D-05	0.579530D-06	-0.802883D-05	0.217443D-05	-0.180501D-05
12	-0.652724D-06	0.283212D-06	-0.269957D-05	0.404442D-06	0.500235D-06
13	0.706345D-07	0.230138D-06	-0.302800D-06	0.480651D-06	0.785850D-06
14	-0.787998D-06	-0.244324D-05	-0.259059D-05	-0.782617D-06	-0.219934D-05
15	0.502152D-06	-0.194270D-06	-0.848118D-06	-0.114007D-05	0.288325D-08
16	-0.581605D-05	0.420519D-06	0.140089D-04	0.337822D-05	-0.465406D-05
17	-0.114822D-05	-0.506021D-06	-0.104086D-05	-0.205059D-06	-0.119451D-05

18	-0.234912D-06	-0.988324D-08	-0.337165D-06	-0.283280D-06	-0.204815D-07
19	-0.658010D-07	-0.154312D-05	0.367303D-05	-0.164686D-05	-0.178142D-05
20	0.126426D-05	0.225217D-06	-0.940594D-07	0.498563D-06	0.102877D-05
21	-0.146350D-05	0.155654D-05	-0.268472D-05	0.171918D-05	0.356596D-05
22	-0.613856D-06	0.145475D-06	-0.129796D-06	-0.287419D-06	0.676622D-06
23	0.139569D-05	0.608133D-06	-0.365420D-05	0.170079D-05	-0.538165D-06
24	-0.882642D-06	0.301871D-06	-0.594532D-07	-0.178441D-05	0.178364D-05
25	0.645324D-05	0.292592D-05	0.155789D-05	-0.865085D-05	0.103497D-05
26	0.426053D-05	0.211200D-06	0.172951D-05	-0.812054D-06	-0.177165D-05
27	-0.795628D-08	0.476753D-06	0.858388D-06	-0.171580D-05	-0.325561D-06
28	-0.221893D-05	-0.703938D-06	0.424805D-05	0.158507D-05	-0.767897D-05
29	-0.108771D-05	-0.171894D-06	0.297182D-05	-0.529878D-06	-0.159211D-05
30	0.226547D-06	0.251108D-06	0.741515D-05	-0.238224D-05	0.140662D-05
31	-0.391117D-05	-0.609800D-06	0.486751D-05	0.352077D-05	0.175179D-05
32	0.268863D-04	0.118222D-04	0.155468D-05	0.118882D-04	0.130514D-04
33	-0.164778D-04	-0.184605D-05	0.527352D-05	0.210567D-04	-0.199925D-04
34	0.159759D-04	0.270773D-05	0.436798D-05	-0.355747D-05	0.209357D-04
35	-0.378763D-05	-0.836084D-05	0.204962D-04	-0.954734D-05	-0.207669D-04
36	-0.263757D-04	-0.107098D-04	-0.183421D-04	-0.169695D-04	0.178402D-05
37	-0.292911D-04	-0.451818D-05	0.301012D-05	-0.136609D-04	-0.214939D-04
38	-0.511252D-06	0.103736D-05	0.461118D-04	-0.147898D-04	-0.366459D-04
39	0.594138D-05	0.121672D-05	0.973336D-04	-0.128647D-04	-0.622286D-04
40	0.326330D-04	-0.335545D-05	-0.759598D-04	0.195353D-04	-0.771128D-04
41	-0.727226D-05	-0.319821D-05	-0.256810D-05	-0.158037D-06	-0.782962D-05
42	-0.195538D-05	0.629591D-06	0.194185D-05	-0.125816D-05	0.253704D-06
43	-0.600245D-05	-0.751889D-05	-0.793519D-05	-0.497022D-06	-0.247704D-04
44	0.317759D-05	0.228921D-05	0.302476D-05	0.227625D-05	0.179594D-04
45	0.159490D-05	-0.578387D-06	0.114032D-04	-0.803852D-05	-0.289187D-04
46	0.434646D-05	-0.166486D-05	0.184733D-05	0.172693D-05	-0.107614D-04
47	0.212578D-05	0.737734D-06	0.800335D-05	0.277656D-05	0.539663D-05
48	0.215275D-05	0.144481D-05	0.485669D-05	0.238835D-06	0.665778D-06
49	0.146204D-03	-0.149007D-04	-0.272732D-03	0.680907D-04	-0.380932D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.106117D-02				
7	-0.373930D-03	0.729297D-02			
8	0.799594D-04	-0.131905D-04	0.632415D-03		
9	-0.211808D-04	-0.482593D-03	0.145096D-03	0.226224D-02	
10	0.873418D-05	-0.322938D-03	0.334578D-04	-0.216430D-03	0.682540D-03
11	-0.143567D-04	0.264447D-04	0.140864D-05	0.467265D-05	-0.734259D-05
12	-0.449833D-05	0.234449D-05	0.305665D-06	-0.413712D-05	-0.212567D-06

13	0.340518D-06	-0.167113D-05	-0.844855D-06	0.394156D-07	-0.476675D-07
14	0.155145D-04	0.318488D-05	0.924946D-05	0.173910D-04	-0.353520D-05
15	0.209450D-05	0.148246D-05	0.537915D-05	0.857332D-05	0.156319D-05
16	0.177610D-05	0.127760D-03	-0.919311D-05	-0.557880D-04	0.384425D-05
17	-0.495717D-06	0.484793D-05	0.258249D-05	0.455115D-05	-0.107267D-05
18	0.356297D-06	-0.308461D-05	0.351529D-07	0.284566D-05	0.998064D-06
19	0.415237D-05	0.480748D-05	0.651279D-05	-0.564170D-05	-0.209350D-05
20	0.229448D-05	0.187797D-05	0.866672D-06	0.434918D-05	0.391897D-06
21	0.261410D-05	-0.440823D-05	-0.397393D-05	-0.141014D-04	-0.227769D-05
22	-0.544202D-05	-0.406602D-05	0.481655D-05	0.194727D-05	0.605981D-05
23	-0.431877D-05	0.116105D-04	0.113867D-04	0.149026D-04	-0.220169D-05
24	0.122085D-04	-0.196254D-05	-0.890945D-06	0.369805D-05	0.405317D-05
25	0.244808D-04	-0.455209D-04	-0.914856D-05	-0.504661D-04	0.179396D-04
26	-0.266069D-05	0.428962D-05	-0.271666D-05	-0.100384D-05	-0.107459D-04
27	0.132282D-05	0.387042D-05	0.380780D-05	0.872136D-05	-0.220152D-05
28	-0.350979D-05	0.426511D-04	-0.108019D-04	0.247896D-05	-0.158470D-05
29	0.431884D-05	0.269238D-05	-0.262376D-05	-0.123345D-04	-0.967574D-06
30	-0.128344D-04	-0.101961D-05	-0.731372D-05	0.128062D-04	-0.152650D-04
31	0.266340D-05	0.282025D-04	-0.116928D-05	-0.339190D-05	0.109189D-04
32	0.178646D-03	0.266611D-03	-0.154557D-03	0.222312D-04	-0.339024D-05
33	-0.228194D-05	-0.508569D-04	0.585462D-06	0.926792D-04	-0.190121D-04
34	-0.542480D-04	0.141327D-03	0.198985D-04	-0.117806D-03	-0.486267D-04
35	-0.245442D-04	-0.226989D-04	-0.977463D-05	0.405795D-04	0.174241D-04
36	-0.113753D-03	0.200566D-03	0.729686D-04	0.710874D-04	0.408091D-04
37	-0.238526D-03	-0.624159D-04	-0.312875D-05	0.126577D-03	0.130809D-03
38	0.952396D-04	0.432450D-04	-0.153396D-05	-0.172273D-03	0.438068D-04
39	0.136743D-03	-0.160382D-03	0.214044D-04	-0.159139D-03	-0.398988D-05
40	0.899962D-04	-0.204665D-03	0.185678D-03	0.164474D-03	-0.629549D-04
41	0.185872D-04	0.813890D-04	0.212494D-04	-0.337631D-05	0.201548D-04
42	0.532928D-05	0.650973D-04	-0.377811D-05	0.163678D-04	0.642620D-05
43	-0.840088D-05	-0.147759D-03	0.187593D-04	-0.697967D-05	0.258217D-04
44	0.952004D-05	0.968637D-04	-0.288635D-04	-0.345515D-05	-0.607122D-04
45	-0.260255D-04	0.525055D-05	0.286612D-04	-0.254436D-05	0.577841D-04
46	-0.108323D-05	-0.646502D-05	0.104992D-05	0.198285D-04	-0.112432D-05
47	0.998860D-05	0.599912D-04	0.290778D-05	-0.305918D-04	-0.920865D-05
48	-0.517882D-06	-0.413145D-04	-0.114398D-05	-0.552744D-05	-0.112976D-05
49	0.524699D-03	0.253291D-03	0.750286D-03	0.613606D-03	-0.296688D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.998385D-04				
12	0.930579D-05	0.992843D-05			

13	0.107074D-05	0.201700D-05	0.357307D-05		
14	-0.126619D-04	-0.456443D-05	-0.947903D-06	0.106904D-03	
15	-0.167344D-05	-0.193867D-05	-0.151420D-05	0.124570D-04	0.203146D-04
16	0.530917D-06	0.597783D-06	0.345958D-05	-0.380469D-04	-0.196239D-04
17	0.288607D-05	0.259210D-05	0.653859D-06	-0.474968D-05	-0.901144D-06
18	0.170983D-06	0.614644D-06	0.773455D-06	0.919447D-07	-0.116334D-05
19	-0.657402D-06	0.116335D-07	-0.688712D-06	0.915386D-05	0.479502D-05
20	-0.721851D-06	-0.242493D-07	-0.273252D-06	-0.159898D-05	-0.763347D-06
21	0.922569D-05	0.540630D-05	0.859349D-06	-0.214786D-05	-0.394383D-06
22	0.750988D-06	0.190565D-05	0.213297D-05	-0.268893D-05	-0.264088D-05
23	-0.197335D-05	-0.102345D-05	0.275519D-07	0.108455D-04	0.860760D-05
24	0.489957D-06	0.117349D-05	0.781926D-06	-0.419967D-05	-0.920894D-06
25	0.722948D-05	0.190715D-05	0.226567D-05	0.255203D-05	-0.134401D-05
26	-0.719027D-05	-0.560909D-05	-0.116255D-05	0.159780D-04	0.296968D-05
27	-0.215412D-05	-0.124637D-05	-0.167543D-05	0.202162D-05	0.313258D-05
28	0.976982D-05	0.233248D-05	0.700999D-06	-0.221462D-04	-0.115968D-04
29	-0.180913D-05	-0.387640D-06	-0.127581D-06	0.209750D-05	0.495540D-06
30	-0.780835D-05	-0.135782D-05	-0.777447D-06	0.152522D-05	-0.676772D-06
31	0.126210D-04	0.252449D-05	0.543509D-06	-0.896204D-05	-0.238911D-05
32	0.245239D-05	-0.133750D-05	0.265463D-05	-0.193893D-04	-0.581256D-05
33	0.188363D-04	0.140645D-05	-0.288470D-05	0.781403D-05	0.780363D-05
34	-0.943620D-05	0.209765D-05	0.264651D-05	-0.116395D-04	-0.861530D-06
35	0.205172D-05	-0.148028D-05	0.989497D-07	0.745434D-05	0.349068D-05
36	-0.787444D-06	-0.237309D-05	-0.302541D-05	0.464401D-04	0.164182D-04
37	0.114362D-05	0.369989D-05	0.158346D-05	0.844077D-05	-0.601458D-05
38	0.573632D-05	-0.929840D-06	0.228209D-05	-0.572920D-05	0.101857D-05
39	-0.537297D-05	-0.498631D-05	-0.236295D-06	0.118993D-04	-0.168010D-04
40	0.205545D-04	0.980419D-05	0.263115D-05	-0.444716D-05	-0.752161D-04
41	0.864904D-05	0.104129D-05	-0.573422D-06	-0.189250D-05	-0.248175D-05
42	0.321437D-07	0.612346D-06	0.100293D-05	0.182849D-05	-0.334363D-06
43	0.112690D-04	-0.365915D-05	0.187916D-05	-0.109230D-04	-0.236465D-05
44	-0.124926D-04	0.380184D-05	-0.190168D-05	0.219776D-05	-0.101107D-05
45	0.816666D-05	-0.104350D-04	-0.212429D-06	0.611362D-05	0.151017D-05
46	0.356509D-05	0.120074D-06	0.855219D-06	0.270524D-05	0.110397D-05
47	-0.378830D-05	-0.397083D-06	-0.544630D-06	-0.221207D-05	-0.142503D-05
48	0.408625D-05	-0.894553D-06	-0.367811D-07	-0.772992D-06	-0.707923D-06
49	0.831736D-04	0.380364D-04	0.923234D-05	-0.126691D-04	-0.323070D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.461169D-03				
17	0.347343D-05	0.217420D-04			

18	0.137732D-05	0.247458D-05	0.381310D-05		
19	-0.258769D-04	-0.349064D-05	-0.176321D-05	0.441733D-04	
20	0.147736D-05	0.194866D-05	0.144645D-05	-0.274831D-05	0.172783D-04
21	0.314771D-05	0.932687D-05	0.983209D-06	0.118127D-06	-0.843171D-06
22	0.201303D-05	0.172363D-05	0.162819D-05	0.190832D-06	0.161247D-06
23	-0.339373D-04	-0.362476D-05	-0.103606D-05	0.194168D-04	-0.246807D-05
24	0.526687D-05	0.301403D-05	0.263831D-05	-0.490657D-05	0.707536D-05
25	0.525308D-05	0.339327D-05	0.337497D-05	-0.279512D-05	0.425637D-05
26	-0.125345D-04	-0.648126D-05	-0.524215D-06	0.102267D-05	-0.107229D-05
27	-0.784758D-05	-0.170290D-05	-0.905392D-06	0.106199D-05	0.579019D-06
28	0.687090D-04	0.328947D-05	0.321889D-06	-0.168539D-04	0.726777D-06
29	-0.681603D-05	-0.241198D-05	-0.220353D-05	0.674076D-05	-0.377961D-05
30	-0.119210D-04	-0.256640D-05	-0.256037D-06	0.543031D-05	0.120175D-06
31	0.156331D-04	0.290608D-05	0.729430D-07	-0.421326D-05	0.426416D-06
32	0.437779D-04	0.136587D-04	0.432523D-05	0.371801D-05	0.149833D-04
33	-0.335975D-05	-0.167198D-04	-0.281765D-05	0.180378D-04	-0.126163D-05
34	-0.253364D-04	0.202566D-05	-0.506813D-06	-0.943146D-05	-0.252885D-05
35	0.145547D-04	0.128842D-05	0.930406D-06	0.252048D-05	-0.181482D-05
36	-0.628035D-04	-0.254322D-04	-0.101662D-04	0.143738D-04	-0.131335D-04
37	-0.162625D-04	-0.126829D-04	-0.309216D-05	-0.383998D-05	-0.276387D-04
38	-0.107152D-03	0.111059D-04	-0.604720D-06	-0.245493D-05	0.844459D-05
39	0.219055D-04	0.123157D-04	0.236152D-05	-0.113614D-04	-0.433303D-05
40	0.131841D-03	0.207183D-05	0.230676D-04	-0.334529D-04	-0.229173D-05
41	-0.170596D-05	0.172347D-05	0.919544D-07	0.132089D-05	0.559496D-06
42	-0.201663D-05	0.656005D-06	-0.120225D-06	0.129628D-05	-0.136707D-06
43	0.570910D-04	0.578695D-05	0.640406D-06	-0.368095D-05	-0.607741D-05
44	-0.315621D-04	-0.146777D-05	-0.418208D-07	0.379938D-05	0.424629D-05
45	0.251485D-04	-0.762447D-05	-0.965396D-07	0.164840D-05	-0.793963D-05
46	0.116361D-05	0.284777D-05	0.112297D-06	0.116266D-05	-0.112312D-05
47	0.506844D-05	-0.133487D-05	0.246659D-06	-0.178721D-06	0.203323D-06
48	0.354918D-05	-0.725806D-06	-0.207407D-06	0.214220D-05	0.225773D-07
49	0.529767D-03	0.187935D-04	0.928828D-04	-0.150834D-03	-0.716165D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.994494D-04				
22	0.118237D-04	0.195082D-04			
23	-0.215692D-04	-0.763664D-05	0.192735D-03		
24	0.538989D-05	0.701382D-05	-0.106942D-04	0.426183D-04	
25	0.186739D-04	0.194915D-04	-0.278822D-04	0.365236D-04	0.378590D-03
26	-0.172797D-04	-0.266874D-05	0.135744D-04	-0.109664D-05	-0.117624D-04
27	-0.347369D-05	-0.339242D-05	0.316828D-05	-0.217096D-05	-0.696305D-06

28	0.538085D-05	-0.774042D-06	-0.332593D-04	0.323581D-05	0.823582D-05
29	-0.271236D-05	-0.184686D-05	0.646772D-05	-0.779894D-05	-0.528600D-05
30	-0.128683D-04	-0.979335D-05	0.314419D-04	-0.144947D-04	-0.653814D-04
31	0.836217D-05	0.458819D-05	-0.158955D-04	0.510681D-05	0.114945D-04
32	-0.313485D-04	-0.133827D-04	0.618372D-05	0.133113D-04	0.123000D-04
33	-0.183327D-04	-0.185950D-05	-0.200433D-04	0.184475D-05	-0.853244D-05
34	0.415704D-05	0.517174D-05	0.112657D-05	-0.134881D-04	0.230062D-04
35	0.140369D-04	0.263528D-06	-0.936840D-05	-0.635801D-05	0.306273D-05
36	0.350935D-04	0.102584D-04	-0.610410D-05	0.390315D-05	-0.348115D-04
37	0.103383D-04	0.215123D-04	0.145391D-04	-0.139139D-04	0.616580D-04
38	-0.843979D-05	0.344839D-05	0.209568D-04	0.190191D-06	0.369996D-04
39	0.100328D-04	-0.255434D-05	0.614949D-05	-0.465443D-06	0.527166D-04
40	0.742181D-04	0.269508D-04	-0.285973D-04	0.662424D-04	0.150950D-03
41	0.565947D-05	0.171003D-05	-0.160753D-05	0.325807D-05	-0.385997D-05
42	-0.270546D-05	0.159986D-05	-0.241281D-05	-0.100599D-05	-0.417672D-05
43	-0.739371D-05	-0.604098D-05	-0.308128D-04	-0.642894D-05	0.641565D-05
44	-0.190483D-06	0.261220D-05	0.100389D-04	0.524541D-05	0.196390D-04
45	-0.777121D-05	-0.288377D-05	-0.743993D-05	0.356444D-05	-0.171224D-04
46	0.330547D-05	-0.195879D-06	0.343203D-05	0.324956D-05	-0.111822D-05
47	-0.356890D-05	-0.213667D-05	0.539433D-05	-0.339035D-05	-0.746088D-05
48	0.170575D-05	-0.770342D-06	0.145589D-05	0.784500D-06	-0.223917D-06
49	0.314163D-03	0.114419D-03	-0.123201D-03	0.277621D-03	0.661231D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.855489D-04				
27	0.964458D-05	0.152226D-04			
28	-0.194495D-04	-0.565839D-05	0.174972D-03		
29	0.514445D-05	0.387365D-05	-0.123150D-04	0.338657D-04	
30	0.177247D-04	0.827176D-05	-0.217528D-04	0.176367D-04	0.169448D-03
31	-0.223309D-04	-0.133333D-04	0.574165D-04	-0.176428D-04	-0.538788D-04
32	0.385727D-04	0.169860D-04	0.210459D-04	0.101256D-04	-0.187792D-05
33	0.558196D-05	-0.484708D-05	-0.875145D-05	-0.113461D-04	0.186799D-04
34	0.417945D-05	-0.982994D-06	0.166858D-04	-0.725906D-05	-0.150916D-04
35	0.920382D-05	0.149205D-05	-0.200212D-04	0.374923D-05	0.162362D-04
36	-0.367191D-04	-0.956116D-05	-0.494281D-04	-0.101674D-04	0.705135D-05
37	-0.104293D-04	-0.175968D-04	-0.188507D-04	0.702965D-05	0.191041D-04
38	-0.191650D-04	0.133187D-04	0.204011D-05	0.176591D-04	0.680360D-05
39	0.117758D-06	0.742193D-05	0.118683D-04	0.108123D-04	-0.248555D-04
40	-0.633821D-04	-0.508126D-04	-0.966219D-04	0.177449D-04	0.181025D-04
41	-0.302884D-05	0.842314D-07	0.299619D-05	-0.723311D-06	-0.430484D-05
42	0.454733D-06	-0.350188D-06	0.313095D-05	0.475600D-06	0.261679D-05



43	-0.240797D-05	-0.111207D-04	0.345776D-04	0.108054D-05	-0.137116D-05
44	-0.156133D-05	0.694604D-05	-0.179343D-04	0.617845D-05	0.118863D-04
45	0.384427D-05	-0.353347D-05	0.142975D-04	-0.111533D-04	-0.329654D-04
46	-0.562563D-06	-0.155932D-05	-0.180121D-05	-0.101729D-05	-0.188397D-05
47	-0.101520D-05	0.193596D-05	-0.286936D-05	0.188100D-05	0.570240D-05
48	0.242192D-05	0.725608D-06	-0.522339D-05	0.141213D-05	0.883052D-06
49	-0.276844D-03	-0.203691D-03	-0.400163D-03	0.910631D-04	0.671184D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.257107D-03				
32	0.639848D-05	0.743757D-02			
33	-0.829340D-05	0.973599D-04	0.394519D-02		
34	0.374741D-04	-0.256545D-04	-0.241736D-02	0.476754D-02	
35	-0.284478D-05	-0.855301D-04	0.304557D-03	-0.117894D-03	0.939252D-03
36	-0.373181D-04	-0.735419D-02	-0.155692D-03	0.223190D-04	0.359025D-04
37	-0.114895D-05	-0.732569D-02	-0.132816D-03	-0.109220D-04	0.820593D-04
38	0.135437D-04	-0.877756D-03	-0.292892D-03	-0.201335D-03	-0.100862D-03
39	0.257062D-04	-0.662189D-03	-0.201850D-03	-0.173150D-03	-0.471069D-06
40	-0.327684D-04	-0.964729D-03	0.200183D-03	0.179484D-03	0.215712D-03
41	0.155547D-04	-0.757515D-04	0.916420D-05	-0.136259D-04	0.136804D-04
42	0.262111D-05	0.811253D-05	-0.378439D-05	0.984812D-05	-0.471549D-05
43	0.672953D-05	0.411345D-04	0.523100D-05	-0.351155D-04	-0.507930D-04
44	0.789791D-05	-0.681652D-04	0.388963D-04	0.291450D-05	0.370314D-04
45	-0.174856D-04	-0.523099D-05	0.365319D-04	-0.591124D-04	-0.628546D-04
46	-0.179035D-04	0.385222D-04	-0.254571D-04	0.594161D-05	-0.284868D-05
47	0.104704D-04	-0.867002D-04	-0.358733D-04	0.158687D-04	-0.109450D-04
48	-0.284614D-05	-0.952117D-05	0.189306D-04	-0.211007D-04	0.168082D-04
49	-0.120538D-03	-0.471240D-02	0.596626D-03	0.607820D-03	0.842339D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.112642D-01				
37	0.730169D-02	0.995593D-02			
38	0.951923D-03	0.109024D-02	0.888639D-02		
39	0.597530D-03	0.101968D-02	0.553368D-02	0.771175D-02	
40	0.107881D-02	0.573173D-03	-0.289784D-02	0.778951D-04	0.633978D-01
41	0.228062D-03	0.285797D-04	0.136733D-04	-0.615309D-05	0.415360D-04
42	-0.201224D-04	-0.119876D-04	0.119472D-03	0.195996D-04	-0.351304D-03
43	-0.496799D-05	-0.102280D-03	-0.115134D-03	-0.716992D-04	0.229381D-03

44	0.190756D-04	0.344690D-04	0.316107D-05	-0.304053D-04	-0.148171D-03
45	0.868218D-04	0.656278D-04	0.797875D-04	0.131874D-03	-0.381485D-04
46	-0.418304D-04	-0.457096D-04	0.182059D-04	0.206011D-05	0.148604D-03
47	0.585354D-04	0.936338D-04	-0.131658D-04	0.743057D-04	0.511999D-04
48	0.426594D-05	-0.270854D-05	-0.356715D-05	0.427067D-05	0.117842D-04
49	0.524655D-02	0.322382D-02	-0.610874D-02	0.606753D-02	0.262425D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.163744D-03				
42	-0.350416D-05	0.759824D-04			
43	-0.240857D-04	0.380483D-05	0.203663D-02		
44	0.629039D-05	0.585548D-06	-0.119945D-02	0.151552D-02	
45	-0.296726D-04	0.605753D-05	0.718409D-03	-0.139504D-02	0.266491D-02
46	0.251891D-05	0.226053D-05	0.122461D-03	-0.719732D-04	0.564453D-04
47	-0.333389D-05	-0.593046D-05	-0.504273D-04	0.831208D-04	-0.714480D-04
48	-0.192768D-05	0.146424D-05	0.117177D-04	-0.607122D-05	0.159917D-04
49	0.244251D-03	-0.135242D-02	0.844352D-03	-0.622532D-03	-0.480629D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.209878D-03			
47	-0.117453D-03	0.239164D-03		
48	0.340152D-04	-0.223050D-04	0.798692D-04	
49	0.652522D-03	0.233329D-03	0.514087D-04	0.109243D+01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.235	1.000			
3	-0.123	-0.104	1.000		
4	0.075	0.146	-0.090	1.000	
5	0.074	0.180	-0.086	0.182	1.000
6	0.032	-0.025	0.020	-0.028	0.010
7	0.020	0.037	-0.032	0.030	0.019
8	0.014	-0.017	0.054	0.019	-0.019
9	0.025	0.021	0.000	0.019	-0.030
10	-0.025	0.029	0.020	-0.022	-0.003

11	0.025	0.013	-0.057	0.034	-0.013
12	-0.021	0.020	-0.060	0.020	0.012
13	0.004	0.028	-0.011	0.039	0.030
14	-0.008	-0.054	-0.018	-0.012	-0.016
15	0.011	-0.010	-0.013	-0.039	0.000
16	-0.027	0.004	0.046	0.024	-0.016
17	-0.025	-0.025	-0.016	-0.007	-0.019
18	-0.012	-0.001	-0.012	-0.022	-0.001
19	-0.001	-0.053	0.039	-0.038	-0.020
20	0.031	0.012	-0.002	0.019	0.018
21	-0.015	0.035	-0.019	0.027	0.026
22	-0.014	0.007	-0.002	-0.010	0.011
23	0.010	0.010	-0.019	0.019	-0.003
24	-0.014	0.010	-0.001	-0.042	0.020
25	0.034	0.034	0.006	-0.069	0.004
26	0.047	0.005	0.013	-0.014	-0.014
27	0.000	0.028	0.015	-0.068	-0.006
28	-0.017	-0.012	0.023	0.018	-0.042
29	-0.019	-0.007	0.036	-0.014	-0.020
30	0.002	0.004	0.040	-0.028	0.008
31	-0.025	-0.009	0.021	0.034	0.008
32	0.032	0.031	0.001	0.021	0.011
33	-0.027	-0.007	0.006	0.052	-0.023
34	0.023	0.009	0.004	-0.008	0.022
35	-0.013	-0.062	0.047	-0.048	-0.050
36	-0.025	-0.023	-0.012	-0.025	0.001
37	-0.030	-0.010	0.002	-0.021	-0.016
38	-0.001	0.002	0.034	-0.024	-0.028
39	0.007	0.003	0.078	-0.023	-0.052
40	0.013	-0.003	-0.021	0.012	-0.022
41	-0.057	-0.057	-0.014	-0.002	-0.045
42	-0.023	0.016	0.016	-0.022	0.002
43	-0.013	-0.038	-0.012	-0.002	-0.040
44	0.008	0.013	0.005	0.009	0.034
45	0.003	-0.003	0.016	-0.024	-0.041
46	0.030	-0.026	0.009	0.018	-0.054
47	0.014	0.011	0.036	0.028	0.026
48	0.024	0.037	0.038	0.004	0.005
49	0.014	-0.003	-0.018	0.010	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

6

7

8

9

10

6	1.000				
7	-0.134	1.000			
8	0.098	-0.006	1.000		
9	-0.014	-0.119	0.121	1.000	
10	0.010	-0.145	0.051	-0.174	1.000
11	-0.044	0.031	0.006	0.010	-0.028
12	-0.044	0.009	0.004	-0.028	-0.003
13	0.006	-0.010	-0.018	0.000	-0.001
14	0.046	0.004	0.036	0.035	-0.013
15	0.014	0.004	0.047	0.040	0.013
16	0.003	0.070	-0.017	-0.055	0.007
17	-0.003	0.012	0.022	0.021	-0.009
18	0.006	-0.018	0.001	0.031	0.020
19	0.019	0.008	0.039	-0.018	-0.012
20	0.017	0.005	0.008	0.022	0.004
21	0.008	-0.005	-0.016	-0.030	-0.009
22	-0.038	-0.011	0.043	0.009	0.053
23	-0.010	0.010	0.033	0.023	-0.006
24	0.057	-0.004	-0.005	0.012	0.024
25	0.039	-0.027	-0.019	-0.055	0.035
26	-0.009	0.005	-0.012	-0.002	-0.044
27	0.010	0.012	0.039	0.047	-0.022
28	-0.008	0.038	-0.032	0.004	-0.005
29	0.023	0.005	-0.018	-0.045	-0.006
30	-0.030	-0.001	-0.022	0.021	-0.045
31	0.005	0.021	-0.003	-0.004	0.026
32	0.064	0.036	-0.071	0.005	-0.002
33	-0.001	-0.009	0.000	0.031	-0.012
34	-0.024	0.024	0.011	-0.036	-0.027
35	-0.025	-0.009	-0.013	0.028	0.022
36	-0.033	0.022	0.027	0.014	0.015
37	-0.073	-0.007	-0.001	0.027	0.050
38	0.031	0.005	-0.001	-0.038	0.018
39	0.048	-0.021	0.010	-0.038	-0.002
40	0.011	-0.010	0.029	0.014	-0.010
41	0.045	0.074	0.066	-0.006	0.060
42	0.019	0.087	-0.017	0.039	0.028
43	-0.006	-0.038	0.017	-0.003	0.022
44	0.008	0.029	-0.029	-0.002	-0.060
45	-0.015	0.001	0.022	-0.001	0.043
46	-0.002	-0.005	0.003	0.029	-0.003
47	0.020	0.045	0.007	-0.042	-0.023
48	-0.002	-0.054	-0.005	-0.013	-0.005
49	0.015	0.003	0.029	0.012	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	1.000				
12	0.296	1.000			
13	0.057	0.339	1.000		
14	-0.123	-0.140	-0.049	1.000	
15	-0.037	-0.137	-0.178	0.267	1.000
16	0.002	0.009	0.085	-0.171	-0.203
17	0.062	0.176	0.074	-0.099	-0.043
18	0.009	0.100	0.210	0.005	-0.132
19	-0.010	0.001	-0.055	0.133	0.160
20	-0.017	-0.002	-0.035	-0.037	-0.041
21	0.093	0.172	0.046	-0.021	-0.009
22	0.017	0.137	0.255	-0.059	-0.133
23	-0.014	-0.023	0.001	0.076	0.138
24	0.008	0.057	0.063	-0.062	-0.031
25	0.037	0.031	0.062	0.013	-0.015
26	-0.078	-0.192	-0.066	0.167	0.071
27	-0.055	-0.101	-0.227	0.050	0.178
28	0.074	0.056	0.028	-0.162	-0.195
29	-0.031	-0.021	-0.012	0.035	0.019
30	-0.060	-0.033	-0.032	0.011	-0.012
31	0.079	0.050	0.018	-0.054	-0.033
32	0.003	-0.005	0.016	-0.022	-0.015
33	0.030	0.007	-0.024	0.012	0.028
34	-0.014	0.010	0.020	-0.016	-0.003
35	0.007	-0.015	0.002	0.024	0.025
36	-0.001	-0.007	-0.015	0.042	0.034
37	0.001	0.012	0.008	0.008	-0.013
38	0.006	-0.003	0.013	-0.006	0.002
39	-0.006	-0.018	-0.001	0.013	-0.042
40	0.008	0.012	0.006	-0.002	-0.066
41	0.068	0.026	-0.024	-0.014	-0.043
42	0.000	0.022	0.061	0.020	-0.009
43	0.025	-0.026	0.022	-0.023	-0.012
44	-0.032	0.031	-0.026	0.005	-0.006
45	0.016	-0.064	-0.002	0.011	0.006
46	0.025	0.003	0.031	0.018	0.017
47	-0.025	-0.008	-0.019	-0.014	-0.020
48	0.046	-0.032	-0.002	-0.008	-0.018
49	0.008	0.012	0.005	-0.001	-0.069

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	1.000				
17	0.035	1.000			
18	0.033	0.272	1.000		
19	-0.181	-0.113	-0.136	1.000	
20	0.017	0.101	0.178	-0.099	1.000
21	0.015	0.201	0.050	0.002	-0.020
22	0.021	0.084	0.189	0.007	0.009
23	-0.114	-0.056	-0.038	0.210	-0.043
24	0.038	0.099	0.207	-0.113	0.261
25	0.013	0.037	0.089	-0.022	0.053
26	-0.063	-0.150	-0.029	0.017	-0.028
27	-0.094	-0.094	-0.119	0.041	0.036
28	0.242	0.053	0.012	-0.192	0.013
29	-0.055	-0.089	-0.194	0.174	-0.156
30	-0.043	-0.042	-0.022	0.063	0.002
31	0.045	0.039	0.002	-0.040	0.006
32	0.024	0.034	0.026	0.006	0.042
33	-0.002	-0.057	-0.023	0.043	-0.005
34	-0.017	0.006	-0.004	-0.021	-0.009
35	0.022	0.009	0.016	0.012	-0.014
36	-0.028	-0.051	-0.049	0.020	-0.030
37	-0.008	-0.027	-0.016	-0.006	-0.067
38	-0.053	0.025	-0.003	-0.004	0.022
39	0.012	0.030	0.014	-0.019	-0.012
40	0.024	0.002	0.047	-0.020	-0.002
41	-0.006	0.029	0.004	0.016	0.011
42	-0.011	0.016	-0.007	0.022	-0.004
43	0.059	0.028	0.007	-0.012	-0.032
44	-0.038	-0.008	-0.001	0.015	0.026
45	0.023	-0.032	-0.001	0.005	-0.037
46	0.004	0.042	0.004	0.012	-0.019
47	0.015	-0.019	0.008	-0.002	0.003
48	0.018	-0.017	-0.012	0.036	0.001
49	0.024	0.004	0.046	-0.022	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
21	22	23	24	25

21	1.000				
22	0.268	1.000			
23	-0.156	-0.125	1.000		
24	0.083	0.243	-0.118	1.000	
25	0.096	0.227	-0.103	0.288	1.000
26	-0.187	-0.065	0.106	-0.018	-0.065
27	-0.089	-0.197	0.058	-0.085	-0.009
28	0.041	-0.013	-0.181	0.037	0.032
29	-0.047	-0.072	0.080	-0.205	-0.047
30	-0.099	-0.170	0.174	-0.171	-0.258
31	0.052	0.065	-0.071	0.049	0.037
32	-0.036	-0.035	0.005	0.024	0.007
33	-0.029	-0.007	-0.023	0.004	-0.007
34	0.006	0.017	0.001	-0.030	0.017
35	0.046	0.002	-0.022	-0.032	0.005
36	0.033	0.022	-0.004	0.006	-0.017
37	0.010	0.049	0.010	-0.021	0.032
38	-0.009	0.008	0.016	0.000	0.020
39	0.011	-0.007	0.005	-0.001	0.031
40	0.030	0.024	-0.008	0.040	0.031
41	0.044	0.030	-0.009	0.039	-0.016
42	-0.031	0.042	-0.020	-0.018	-0.025
43	-0.016	-0.030	-0.049	-0.022	0.007
44	0.000	0.015	0.019	0.021	0.026
45	-0.015	-0.013	-0.010	0.011	-0.017
46	0.023	-0.003	0.017	0.034	-0.004
47	-0.023	-0.031	0.025	-0.034	-0.025
48	0.019	-0.020	0.012	0.013	-0.001
49	0.030	0.025	-0.008	0.041	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.267	1.000			
28	-0.159	-0.110	1.000		
29	0.096	0.171	-0.160	1.000	
30	0.147	0.163	-0.126	0.233	1.000
31	-0.151	-0.213	0.271	-0.189	-0.258
32	0.048	0.050	0.018	0.020	-0.002
33	0.010	-0.020	-0.011	-0.031	0.023
34	0.007	-0.004	0.018	-0.018	-0.017
35	0.032	0.012	-0.049	0.021	0.041

36	-0.037	-0.023	-0.035	-0.016	0.005
37	-0.011	-0.045	-0.014	0.012	0.015
38	-0.022	0.036	0.002	0.032	0.006
39	0.000	0.022	0.010	0.021	-0.022
40	-0.027	-0.052	-0.029	0.012	0.006
41	-0.026	0.002	0.018	-0.010	-0.026
42	0.006	-0.010	0.027	0.009	0.023
43	-0.006	-0.063	0.058	0.004	-0.002
44	-0.004	0.046	-0.035	0.027	0.023
45	0.008	-0.018	0.021	-0.037	-0.049
46	-0.004	-0.028	-0.009	-0.012	-0.010
47	-0.007	0.032	-0.014	0.021	0.028
48	0.029	0.021	-0.044	0.027	0.008
49	-0.029	-0.050	-0.029	0.015	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.005	1.000			
33	-0.008	0.018	1.000		
34	0.034	-0.004	-0.557	1.000	
35	-0.006	-0.032	0.158	-0.056	1.000
36	-0.022	-0.803	-0.023	0.003	0.011
37	-0.001	-0.851	-0.021	-0.002	0.027
38	0.009	-0.108	-0.049	-0.031	-0.035
39	0.018	-0.087	-0.037	-0.029	0.000
40	-0.008	-0.044	0.013	0.010	0.028
41	0.076	-0.069	0.011	-0.015	0.035
42	0.019	0.011	-0.007	0.016	-0.018
43	0.009	0.011	0.002	-0.011	-0.037
44	0.013	-0.020	0.016	0.001	0.031
45	-0.021	-0.001	0.011	-0.017	-0.040
46	-0.077	0.031	-0.028	0.006	-0.006
47	0.042	-0.065	-0.037	0.015	-0.023
48	-0.020	-0.012	0.034	-0.034	0.061
49	-0.007	-0.052	0.009	0.008	0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				



37	0.689	1.000			
38	0.095	0.116	1.000		
39	0.064	0.116	0.668	1.000	
40	0.040	0.023	-0.122	0.004	1.000
41	0.168	0.022	0.011	-0.005	0.013
42	-0.022	-0.014	0.145	0.026	-0.160
43	-0.001	-0.023	-0.027	-0.018	0.020
44	0.005	0.009	0.001	-0.009	-0.015
45	0.016	0.013	0.016	0.029	-0.003
46	-0.027	-0.032	0.013	0.002	0.041
47	0.036	0.061	-0.009	0.055	0.013
48	0.004	-0.003	-0.004	0.005	0.005
49	0.047	0.031	-0.062	0.066	0.997

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.031	1.000			
43	-0.042	0.010	1.000		
44	0.013	0.002	-0.683	1.000	
45	-0.045	0.013	0.308	-0.694	1.000
46	0.014	0.018	0.187	-0.128	0.075
47	-0.017	-0.044	-0.072	0.138	-0.089
48	-0.017	0.019	0.029	-0.017	0.035
49	0.018	-0.148	0.018	-0.015	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	1.000			
47	-0.524	1.000		
48	0.263	-0.161	1.000	
49	0.043	0.014	0.006	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN BSEED

1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.021	38
200	1.007	21
300	1.006	41
400	1.004	41
500	1.001	6
600	1.004	5
700	1.005	39
800	1.004	32
900	1.003	1
1000	1.004	1

This is the interaction between latent profile categories and job control on reducing distress

# SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	1113

Number of dependent variables	2
Number of independent variables	7
Number of continuous latent variables	1

## Observed dependent variables

Continuous  
CHOICE15

Binary and ordered categorical (ordinal)  
KESCAT16

Observed independent variables  
PHY15      KES15      CLU2      CLU3      BULLY15      PRESS15  
DUTIES15

Continuous latent variables  
S1

## Variables with special functions

Cluster variable      CID15

Within variables  
PHY15      KES15      BULLY15      PRESS15      DUTIES15

Between variables  
CLU2      CLU3

Centering (GRANDMEAN)  
PHY15      KES15      BULLY15      PRESS15      DUTIES15

Estimator	BAYES
Specifications for Bayesian Estimation	
Point estimate	MEDIAN

```

Number of Markov chain Monte Carlo (MCMC) chains      3
Random seed for the first chain                      0
Starting value information                           UNPERTURBED
Algorithm used for Markov chain Monte Carlo           GIBBS (PX1)
Convergence criterion                                0.100D-01
Maximum number of iterations                          50000
K-th iteration used for thinning                      20
Link                                                  PROBIT

```

```

Input data file(s)
  multicomponent for mplus cat.dat
Input data format  FREE

```

#### SUMMARY OF DATA

Number of clusters 58

Size (s)	Cluster ID with Size s
1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125

67	217
174	110
210	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000
58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3	0.448	0.208	0.000	55.17%	0.000	0.000	0.000
58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15	0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15	2.814	-0.116	1.000	15.06%	2.000	3.000	3.000
1102.000	1.193	-0.747	5.000	4.45%	3.000	4.000	
BULLY15	0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15	0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15	0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 49

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.163	0.053	0.001	0.056	0.261	*
BULLY15	0.107	0.060	0.032	-0.005	0.228	
DUTIES15	-0.078	0.045	0.032	-0.167	0.004	
PRESS15	-0.054	0.042	0.113	-0.133	0.031	
KES15	0.824	0.092	0.000	0.633	0.998	*
KES15 WITH						
PHY15	0.106	0.014	0.000	0.079	0.135	*
CHOICE15	-0.089	0.018	0.000	-0.124	-0.053	*
BULLY15	0.072	0.014	0.000	0.046	0.100	*
PRESS15	0.062	0.019	0.001	0.024	0.100	*
DUTIES15	-0.073	0.017	0.000	-0.105	-0.039	*
PHY15 WITH						
CHOICE15	-0.088	0.028	0.001	-0.144	-0.034	*
BULLY15	0.040	0.020	0.022	0.001	0.079	*
PRESS15	0.119	0.027	0.000	0.065	0.174	*
DUTIES15	-0.057	0.026	0.016	-0.110	-0.007	*
CHOICE15 WITH						
BULLY15	-0.132	0.026	0.000	-0.184	-0.080	*
PRESS15	-0.180	0.036	0.000	-0.250	-0.108	*
DUTIES15	0.151	0.035	0.000	0.084	0.226	*
BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.149	0.253	*
DUTIES15	-0.175	0.025	0.000	-0.226	-0.128	*
PRESS15 WITH						
DUTIES15	-0.286	0.034	0.000	-0.355	-0.216	*
Means						
PHY15	0.000	0.025	0.494	-0.051	0.048	
KES15	-0.001	0.017	0.489	-0.034	0.033	
BULLY15	0.001	0.023	0.494	-0.045	0.046	
PRESS15	-0.001	0.033	0.493	-0.059	0.068	
DUTIES15	-0.001	0.030	0.483	-0.058	0.062	

Variances						
PHY15	0.703	0.030	0.000	0.648	0.768	*
KES15	0.314	0.013	0.000	0.290	0.342	*
CHOICE15	1.143	0.051	0.000	1.046	1.250	*
BULLY15	0.603	0.026	0.000	0.556	0.658	*
PRESS15	1.158	0.049	0.000	1.069	1.256	*
DUTIES15	1.035	0.045	0.000	0.952	1.124	*
Between Level						
S1	ON					
CLU2		0.000	0.159	0.499	-0.294	0.335
CLU3		-0.092	0.153	0.271	-0.388	0.212
KESCAT16	ON					
CLU2		-0.067	0.175	0.347	-0.396	0.284
CLU3		0.086	0.156	0.268	-0.193	0.409
CHOICE15		-0.346	0.281	0.107	-0.904	0.205
CHOICE15	WITH					
CLU2		0.025	0.028	0.171	-0.029	0.083
CLU3		-0.002	0.030	0.473	-0.062	0.057
CLU2	WITH					
CLU3		-0.136	0.037	0.000	-0.222	-0.078 *
Means						
CLU2		0.309	0.063	0.000	0.187	0.437 *
CLU3		0.446	0.067	0.000	0.316	0.573 *
CHOICE15		2.885	0.060	0.000	2.774	3.013 *
Intercepts						
S1		0.081	0.136	0.291	-0.190	0.340
Thresholds						
KESCAT16\$1		-1.435	0.779	0.032	-2.953	0.129
Variances						
CLU2		0.231	0.045	0.000	0.162	0.333 *
CLU3		0.263	0.050	0.000	0.187	0.380 *
CHOICE15		0.095	0.030	0.000	0.055	0.171 *
Residual Variances						
KESCAT16		0.026	0.035	0.000	0.001	0.132 *



S1	0.014	0.020	0.000	0.001	0.072	*
----	-------	-------	-------	-------	-------	---

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within-Level Standardized Estimates Averaged Over Clusters						
S1   KESCAT16 ON CHOICE15	0.035	0.045	0.223	-0.055	0.123	
KESCAT16 ON						
PHY15	0.116	0.037	0.001	0.045	0.187	*
BULLY15	0.072	0.040	0.035	-0.006	0.153	
DUTIES15	-0.070	0.039	0.029	-0.148	0.002	
PRESS15	-0.049	0.039	0.114	-0.124	0.029	
KES15	0.398	0.039	0.000	0.320	0.471	*
KES15 WITH						
PHY15	0.226	0.028	0.000	0.169	0.279	*
CHOICE15	-0.148	0.030	0.000	-0.207	-0.090	*
BULLY15	0.167	0.030	0.000	0.108	0.225	*
PRESS15	0.103	0.030	0.001	0.044	0.163	*
DUTIES15	-0.128	0.030	0.000	-0.184	-0.069	*
PHY15 WITH						
CHOICE15	-0.098	0.030	0.000	-0.158	-0.038	*
BULLY15	0.061	0.030	0.021	0.002	0.118	*
PRESS15	0.133	0.029	0.000	0.075	0.187	*
DUTIES15	-0.067	0.030	0.015	-0.127	-0.008	*
CHOICE15 WITH						
BULLY15	-0.158	0.030	0.000	-0.217	-0.098	*
PRESS15	-0.157	0.031	0.000	-0.218	-0.097	*
DUTIES15	0.139	0.031	0.000	0.079	0.203	*
BULLY15 WITH						
PRESS15	0.240	0.028	0.000	0.184	0.296	*
DUTIES15	-0.222	0.029	0.000	-0.278	-0.166	*

PRESS15 WITH DUTIES15	-0.261	0.028	0.000	-0.315	-0.207	*
Means						
PHY15	-0.001	0.030	0.491	-0.059	0.056	
KES15	-0.001	0.030	0.488	-0.061	0.058	
BULLY15	0.001	0.030	0.492	-0.058	0.057	
PRESS15	0.000	0.031	0.498	-0.060	0.063	
DUTIES15	-0.001	0.030	0.489	-0.057	0.058	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
S1 ON						
CLU2	-0.001	0.481	0.499	-0.904	0.943	
CLU3	-0.338	0.493	0.271	-1.105	0.734	
KESCAT16 ON						
CLU2	-0.139	0.352	0.347	-0.814	0.538	
CLU3	0.188	0.328	0.268	-0.491	0.836	
CHOICE15	-0.474	0.319	0.107	-0.936	0.258	
CHOICE15 WITH						
CLU2	0.169	0.174	0.171	-0.190	0.484	
CLU3	-0.011	0.176	0.473	-0.370	0.325	
CLU2 WITH						
CLU3	-0.560	0.088	0.000	-0.715	-0.362	*
Means						
CLU2	0.646	0.142	0.000	0.374	0.941	*
CLU3	0.871	0.151	0.000	0.588	1.176	*
CHOICE15	9.387	1.372	0.000	7.022	12.307	*
Intercepts						
S1	0.528	0.917	0.291	-1.213	2.304	

Variances						
CLU2	1.000	0.000	0.000	1.000	1.000	
CLU3	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.489	0.255	0.000	0.029	0.928	*
S1	0.685	0.255	0.000	0.090	0.987	*

#### R-SQUARE

##### Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.242	0.035	0.000	0.176	0.311

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.511	0.255	0.000	0.072	0.971

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
S1	0.315	0.255	0.000	0.013	0.910

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
—————  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

NU	PRESS15	DUTIES15
	<u>0</u>	<u>0</u>

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
KESCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	

BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
-----	-----
PRESS15	0
DUTIES15	0

ALPHA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
-----	-----	-----	-----	-----	-----
	0	1	2	0	3

ALPHA	PRESS15	DUTIES15
-----	-----	-----
	4	5

BETA		KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	-----	-----	-----	-----	-----	-----
	0	6	7	0	8	
PHY15	0	0	0	0	0	
KES15	0	0	0	0	0	
CHOICE15	0	0	0	0	0	
BULLY15	0	0	0	0	0	
PRESS15	0	0	0	0	0	
DUTIES15	0	0	0	0	0	

BETA	
PRESS15	DUTIES15
-----	-----
KESCAT16	9
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0

PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20
PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
49

NU	KESCAT16	CLU2	CLU3	CHOICE15
	0	0	0	0

	LAMBDA				
	S1	KESCAT16	CLU2	CLU3	CHOICE15
KESCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0

CHOICE15	0	0	0	0	0
----------	---	---	---	---	---

THETA

	KESCAT16	CLU2	CLU3	CHOICE15
KESCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
CHOICE15	0	0	0	0

ALPHA

S1	KESCAT16	CLU2	CLU3	CHOICE15
32	0	33	34	35

BETA

S1	KESCAT16	CLU2	CLU3	CHOICE15
0	0	36	37	0
KESCAT16	0	38	39	40
CLU2	0	0	0	0
CLU3	0	0	0	0
CHOICE15	0	0	0	0

PSI

S1	KESCAT16	CLU2	CLU3	CHOICE15
41				
KESCAT16	0	42		
CLU2	0	43		
CLU3	0	44	45	
CHOICE15	0	46	47	48

STARTING VALUES FOR WITHIN

TAU

KESCAT16

0.000

NU

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU

PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

LAMBDA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	1.000	0.000	0.000	0.000
KES15	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA

PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	1.000
DUTIES15	0.000

THETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000			



KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA	
PRESS15	DUTIES15
<hr/>	
PRESS15	0.000
DUTIES15	0.000

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>					
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	
0.000	0.000

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>					
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	
KESCAT16	0.000
PHY15	0.000
KES15	0.000

CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>				
PHY15	0.000	<u>0.351</u>			
KES15	0.000	0.000	<u>0.157</u>		
CHOICE15	0.000	0.000	0.000	<u>0.597</u>	
BULLY15	0.000	0.000	0.000	0.000	<u>0.301</u>
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000
	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>-0.352</u>

NU			
	KESCAT16	CLU2	CLU3
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
	0.000	0.000	0.000

LAMBDA				
	S1	KESCAT16	CLU2	CHOICE15
KESCAT16	<u>0.000</u>	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
	0.000	0.000	0.000	0.000

CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	1.000

THETA				
	KESCAT16	CLU2	CLU3	CHOICE15
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
CHOICE15	0.000	0.000	0.000	0.000

ALPHA				
S1	KESCAT16	CLU2	CLU3	CHOICE15
0.000	0.000	0.380	0.495	2.814

BETA				
S1	KESCAT16	CLU2	CLU3	CHOICE15
0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000

PSI				
S1	KESCAT16	CLU2	CLU3	CHOICE15
1.000				
KESCAT16	0.000	1.000		
CLU2	0.000	0.000	0.118	
CLU3	0.000	0.000	0.000	0.125
CHOICE15	0.000	0.000	0.000	0.000

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity

Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.639314D-03				
2	0.915556D-04	0.284362D-03			
3	0.322906D-04	0.752738D-04	0.531285D-03		
4	0.137956D-03	0.534289D-04	0.203212D-03	0.107043D-02	
5	-0.939859D-04	-0.671587D-04	-0.132643D-03	-0.258186D-03	0.918341D-03
6	0.595156D-04	-0.587234D-05	-0.389799D-04	-0.443838D-04	0.428602D-04
7	0.823407D-05	-0.378384D-04	0.587129D-04	-0.262958D-04	-0.998359D-04
8	-0.312380D-05	0.138802D-05	0.524298D-04	0.296119D-04	0.372108D-04
9	0.186609D-04	0.756099D-05	-0.489690D-04	0.422005D-04	-0.305961D-04
10	0.774218D-04	0.352230D-04	0.149192D-04	0.263548D-04	-0.221143D-04
11	0.189692D-04	0.785012D-05	-0.173394D-04	-0.220751D-05	0.285349D-04
12	0.924588D-05	0.376114D-05	-0.952164D-05	-0.667785D-05	-0.840391D-05
13	0.189227D-05	-0.132399D-05	-0.610739D-05	0.666635D-05	-0.117367D-04
14	-0.231126D-04	0.153620D-04	-0.689195D-05	0.142538D-04	0.291816D-05
15	0.528958D-05	0.148796D-04	0.842138D-05	0.145593D-04	-0.153991D-04
16	-0.213732D-04	-0.124127D-05	0.213455D-05	-0.190194D-04	-0.804344D-05
17	0.422576D-04	0.130009D-04	0.133685D-04	0.233390D-04	-0.233671D-04
18	0.658682D-05	-0.290490D-05	-0.103473D-05	0.162750D-04	0.153304D-04
19	-0.429249D-05	0.251894D-05	0.671088D-05	0.127697D-04	0.803980D-05
20	0.561531D-05	-0.563462D-05	-0.545452D-05	0.549479D-05	0.184486D-04
21	0.372436D-04	-0.918440D-05	-0.158743D-04	-0.203940D-04	0.136762D-04
22	0.524276D-05	-0.403314D-05	0.350978D-05	-0.213879D-05	0.121530D-04
23	-0.338288D-04	0.111890D-05	0.299541D-04	-0.898344D-04	0.397784D-04
24	0.153495D-04	-0.222179D-04	-0.161494D-04	-0.593921D-05	0.237937D-05
25	-0.133149D-04	-0.143738D-04	-0.618419D-04	-0.166862D-04	0.490302D-04
26	-0.109099D-04	0.129445D-04	0.205915D-05	-0.107501D-04	0.203727D-04
27	-0.185878D-04	-0.302479D-05	-0.157776D-04	-0.247434D-04	-0.901646D-05
28	0.327052D-05	0.104319D-04	0.135860D-04	0.200049D-04	-0.800003D-05
29	-0.140381D-04	0.119024D-04	-0.124796D-04	0.206270D-05	-0.141475D-04
30	0.350244D-05	0.854960D-05	0.108553D-04	0.145158D-04	-0.453946D-04
31	0.510959D-04	-0.249320D-04	0.107382D-04	0.814584D-04	-0.195347D-04
32	-0.706786D-04	-0.296144D-04	0.625938D-04	0.984862D-04	0.139623D-03

33	0.435761D-04	0.667483D-04	0.347421D-04	0.164180D-04	-0.102975D-04
34	-0.243949D-04	-0.652337D-04	-0.639548D-04	-0.520596D-04	0.101659D-03
35	-0.739314D-04	-0.876249D-04	-0.557791D-04	-0.167988D-03	0.106260D-03
36	0.458212D-04	0.547288D-05	-0.224279D-04	-0.353334D-05	-0.228274D-03
37	0.639753D-04	0.223581D-04	-0.119244D-04	-0.797663D-04	-0.122480D-03
38	-0.240138D-03	-0.822551D-04	0.237203D-03	0.207702D-03	0.886060D-04
39	0.165095D-04	0.421284D-05	0.112947D-03	0.689594D-04	-0.122073D-05
40	0.237467D-03	0.226658D-03	-0.187401D-03	-0.393205D-03	-0.570296D-03
41	-0.112638D-04	0.181941D-04	-0.652806D-05	-0.277575D-04	0.510598D-05
42	-0.137665D-04	-0.584024D-05	-0.843190D-06	-0.285344D-04	0.802756D-05
43	-0.103080D-04	-0.212271D-05	0.215554D-05	-0.296552D-04	-0.467439D-04
44	0.135995D-04	0.666912D-05	-0.181592D-04	0.343998D-04	0.231360D-04
45	-0.126556D-04	0.364045D-04	0.262575D-04	0.214040D-05	-0.208112D-04
46	-0.127818D-04	-0.657780D-05	0.195088D-04	0.187870D-04	-0.123889D-04
47	0.602811D-05	-0.925171D-05	-0.307485D-05	-0.119954D-04	0.680505D-05
48	0.236133D-04	0.144026D-04	-0.494025D-05	0.322327D-04	-0.577991D-05
49	0.558444D-03	0.689664D-03	-0.378991D-03	-0.961805D-03	-0.162029D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.282028D-02				
7	-0.312749D-03	0.840006D-02			
8	0.128277D-03	-0.116066D-03	0.362252D-02		
9	-0.149651D-03	-0.111640D-03	-0.349480D-03	0.172535D-02	
10	0.551187D-05	0.221947D-03	0.397573D-03	0.432114D-03	0.201933D-02
11	-0.394827D-04	0.217623D-03	0.105235D-04	-0.548428D-05	0.161059D-04
12	0.296928D-04	-0.246670D-04	0.946311D-05	-0.209516D-04	-0.149586D-04
13	0.978578D-05	0.134809D-04	0.310505D-04	-0.134665D-04	0.789390D-05
14	0.103619D-04	-0.399976D-04	-0.502607D-04	0.139925D-05	0.344826D-04
15	-0.306056D-04	-0.276238D-04	-0.354916D-04	0.150864D-04	0.240376D-04
16	-0.869158D-04	0.207350D-03	0.115696D-03	-0.607470D-04	0.137602D-04
17	0.182012D-04	0.602340D-05	-0.105337D-04	-0.162814D-04	0.130527D-04
18	0.279373D-04	0.642057D-05	0.427013D-04	-0.115703D-04	-0.179175D-04
19	0.116791D-05	-0.583420D-04	-0.174722D-05	0.651895D-05	0.161261D-05
20	-0.746927D-06	0.158739D-06	0.121226D-04	-0.229618D-05	0.361635D-05
21	-0.678627D-04	0.281377D-04	-0.525790D-04	-0.458998D-04	-0.880748D-05
22	-0.409051D-04	-0.336056D-04	-0.639266D-05	0.622809D-05	-0.202785D-05
23	0.211928D-04	0.164350D-03	0.131855D-04	0.560968D-04	0.723647D-04
24	0.195708D-04	-0.136743D-03	-0.548895D-04	0.274953D-04	-0.918424D-05
25	-0.102590D-05	-0.216373D-03	-0.563639D-04	0.332959D-06	0.381980D-04
26	-0.207457D-04	0.864758D-04	0.497042D-04	0.360181D-06	-0.933824D-05
27	0.204318D-04	0.307354D-04	0.177483D-05	-0.438431D-05	-0.245317D-05

28	0.371151D-05	-0.146436D-03	-0.156051D-04	-0.954192D-05	0.135066D-05
29	0.953883D-05	-0.331753D-04	0.482007D-05	0.136161D-04	0.189425D-04
30	0.329503D-04	0.155319D-03	0.539526D-04	0.237779D-05	-0.189903D-05
31	-0.558326D-04	-0.157754D-03	0.579615D-04	-0.871455D-05	-0.460006D-04
32	0.495232D-04	0.932869D-03	0.347835D-03	0.203172D-03	-0.966300D-04
33	-0.339150D-05	0.115246D-03	0.191709D-04	0.129276D-03	0.544310D-04
34	-0.639744D-04	-0.290491D-06	-0.542841D-04	-0.670048D-04	-0.473616D-04
35	0.499211D-04	0.119530D-03	0.393205D-04	-0.466482D-04	-0.105961D-04
36	-0.182281D-03	-0.595384D-03	-0.188401D-03	0.335998D-04	-0.182048D-03
37	0.197910D-03	-0.669680D-03	-0.194950D-03	-0.808527D-04	-0.232172D-05
38	0.240711D-04	0.104064D-02	0.160286D-03	-0.658745D-03	0.411744D-03
39	0.178564D-03	0.539898D-03	0.486931D-04	-0.407766D-03	0.355909D-03
40	0.510012D-04	-0.659025D-03	0.408215D-03	0.410399D-03	-0.175662D-03
41	-0.540344D-05	0.843700D-04	0.193527D-04	0.699052D-05	0.270958D-04
42	0.216806D-04	0.200869D-03	0.582053D-05	0.718492D-04	0.385085D-04
43	-0.641434D-04	-0.222968D-03	0.578604D-04	-0.217990D-04	-0.749061D-04
44	0.509963D-04	0.132568D-03	-0.553829D-04	-0.288062D-04	0.758647D-05
45	-0.694633D-05	-0.952857D-04	0.214014D-05	0.397902D-04	0.780601D-04
46	-0.974178D-04	0.383334D-04	-0.773182D-05	-0.607302D-04	0.462008D-04
47	0.107405D-03	-0.979929D-04	0.506404D-04	0.297555D-04	-0.663624D-04
48	0.141719D-04	0.342678D-04	0.443001D-04	0.237860D-04	0.268564D-04
49	0.881655D-04	-0.230013D-02	0.107798D-02	0.606887D-03	-0.160900D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.908907D-03				
12	0.133175D-03	0.205232D-03			
13	0.339046D-04	0.638591D-04	0.180375D-03		
14	-0.850172D-04	-0.728687D-04	-0.104585D-04	0.763840D-03	
15	-0.152163D-04	-0.299059D-04	-0.438627D-04	0.132094D-03	0.332100D-03
16	-0.243879D-04	-0.117418D-04	0.365313D-05	-0.199418D-03	-0.200900D-03
17	0.479593D-04	0.571557D-04	0.305768D-04	-0.869654D-04	-0.104852D-04
18	0.570821D-05	0.286429D-04	0.549387D-04	-0.303228D-04	-0.355323D-04
19	0.426215D-05	-0.102913D-04	-0.255872D-04	0.537572D-04	0.715286D-04
20	0.319219D-05	0.137578D-04	0.241108D-04	-0.459306D-05	-0.806454D-05
21	0.144131D-03	0.630211D-04	0.338913D-04	-0.165756D-03	-0.454523D-04
22	0.223688D-04	0.417637D-04	0.419728D-04	-0.516862D-04	-0.688786D-04
23	-0.931733D-07	-0.182221D-04	-0.175657D-04	0.151531D-03	0.728170D-04
24	-0.874290D-05	0.154029D-05	0.141092D-04	-0.165950D-04	-0.467967D-05
25	0.408382D-04	0.875639D-05	0.447507D-06	-0.846497D-04	-0.345457D-04
26	-0.632348D-04	-0.602881D-04	-0.299887D-04	0.109790D-03	0.222640D-04
27	-0.758254D-05	-0.183637D-04	-0.407927D-04	0.245531D-04	0.414482D-04

28	-0.275289D-04	-0.255971D-05	0.585745D-05	-0.716765D-04	-0.112964D-03
29	-0.213197D-04	-0.265026D-05	-0.183050D-04	0.223449D-04	0.140882D-04
30	0.346358D-04	0.600784D-06	-0.232600D-04	0.489564D-04	0.290902D-04
31	-0.387447D-04	-0.104850D-04	0.192913D-04	0.817983D-05	-0.843461D-05
32	0.113125D-03	0.302222D-04	-0.390410D-05	0.141642D-04	-0.523705D-04
33	-0.454842D-04	0.287555D-04	0.100025D-05	0.632887D-04	-0.345486D-04
34	-0.117649D-04	0.524640D-05	0.346416D-04	-0.865789D-04	-0.316171D-04
35	0.455684D-04	0.216259D-04	0.371245D-04	0.660763D-04	-0.134606D-04
36	-0.214388D-03	-0.795500D-04	-0.477197D-04	-0.657841D-04	0.356356D-04
37	-0.111743D-03	-0.624989D-04	-0.417092D-04	-0.661235D-04	0.176287D-04
38	0.170454D-03	-0.126739D-04	0.506730D-04	0.161026D-03	-0.785776D-04
39	0.499673D-04	-0.655003D-05	0.726634D-04	0.166961D-03	-0.632259D-04
40	-0.921154D-04	0.104369D-03	0.398740D-04	0.105409D-03	0.109340D-03
41	0.187107D-04	-0.235263D-05	0.238824D-05	-0.866543D-06	-0.281311D-05
42	-0.166603D-04	0.592233D-05	0.839913D-05	0.327518D-05	-0.138517D-04
43	0.567648D-05	0.191424D-05	0.442122D-05	0.133285D-04	-0.244522D-04
44	-0.247286D-04	-0.873823D-05	-0.193964D-04	-0.987395D-05	0.474191D-05
45	0.665527D-04	0.188160D-04	0.283261D-04	0.153850D-04	-0.125005D-04
46	0.388571D-04	0.525943D-05	0.108019D-04	0.221045D-04	0.122276D-04
47	-0.250688D-04	-0.118436D-04	-0.894779D-05	-0.254945D-04	-0.432289D-05
48	-0.744490D-05	0.143647D-05	0.362429D-05	0.102880D-04	-0.683892D-05
49	-0.168756D-03	0.306584D-03	0.166238D-03	0.401654D-03	0.320383D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.259126D-02				
17	0.247461D-04	0.381165D-03			
18	0.147815D-04	0.736247D-04	0.183916D-03		
19	-0.315808D-03	-0.387885D-04	-0.492727D-04	0.696597D-03	
20	0.400046D-04	0.610598D-04	0.784984D-04	-0.173174D-03	0.663069D-03
21	0.726834D-04	0.118403D-03	0.452325D-04	-0.241480D-04	0.192607D-04
22	0.667635D-04	0.389719D-04	0.664460D-04	-0.438227D-04	0.646387D-04
23	-0.447066D-03	-0.327756D-04	-0.433326D-04	0.274485D-03	-0.634433D-04
24	0.234773D-04	0.631894D-04	0.259928D-04	-0.129623D-03	0.239448D-03
25	0.710516D-04	0.736240D-04	0.303914D-04	-0.692598D-04	0.823789D-04
26	-0.225712D-04	-0.130680D-03	-0.413961D-04	-0.168884D-04	-0.221444D-04
27	-0.261704D-04	-0.281168D-04	-0.667722D-04	0.363330D-04	-0.275294D-04
28	0.420479D-03	0.255466D-04	0.230288D-04	-0.239889D-03	0.818167D-04
29	-0.637972D-04	-0.495958D-04	-0.583767D-04	0.987286D-04	-0.237767D-03
30	-0.479362D-04	-0.283813D-04	-0.167323D-04	0.231068D-04	-0.715299D-04
31	0.512774D-04	0.623308D-05	0.479644D-04	-0.704842D-04	0.110465D-03
32	-0.101635D-03	-0.289419D-04	-0.339993D-04	-0.254151D-04	-0.156814D-03



33	-0.145315D-04	-0.319686D-04	0.193487D-04	0.133469D-04	-0.427974D-06
34	0.971445D-04	0.408361D-04	0.159068D-04	-0.386536D-05	0.378551D-04
35	-0.104129D-03	-0.177046D-04	0.984289D-05	0.579699D-04	-0.149882D-04
36	0.259775D-03	-0.307643D-04	0.733180D-05	0.930346D-04	0.175084D-03
37	-0.609695D-04	0.666685D-06	0.274276D-04	0.111723D-03	0.188415D-03
38	0.213117D-04	-0.585722D-04	-0.137513D-03	-0.119655D-03	-0.436897D-04
39	0.318112D-03	-0.277786D-04	-0.662194D-04	-0.187644D-03	-0.185833D-04
40	0.799624D-04	-0.343573D-04	-0.142668D-04	0.182896D-03	-0.144470D-03
41	0.190093D-04	0.125887D-04	-0.406890D-05	0.121502D-04	-0.151239D-04
42	0.276497D-04	-0.181721D-04	0.565851D-05	0.571904D-05	-0.335504D-04
43	-0.723596D-04	0.198932D-04	0.145241D-04	0.139064D-04	0.398356D-04
44	0.282690D-04	-0.261251D-05	0.106400D-05	-0.931723D-07	0.327932D-05
45	0.112471D-04	-0.874352D-05	-0.824513D-05	-0.406367D-05	-0.498548D-04
46	-0.874844D-05	0.553467D-05	0.258812D-05	0.165320D-04	0.294648D-04
47	0.408397D-04	0.650560D-05	0.387902D-05	-0.323354D-04	0.761979D-05
48	-0.498502D-04	0.189209D-04	0.107041D-04	0.138883D-04	0.210262D-04
49	0.446712D-03	-0.145481D-03	-0.123116D-03	0.381327D-03	-0.550645D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.754242D-03				
22	0.129670D-03	0.349556D-03			
23	-0.936596D-04	-0.121739D-03	0.132491D-02		
24	0.576454D-04	0.100868D-03	-0.162784D-03	0.659462D-03	
25	0.200513D-03	0.133657D-03	-0.334455D-03	0.377584D-03	0.240397D-02
26	-0.213402D-03	-0.580195D-04	0.261046D-04	-0.342246D-04	-0.729465D-04
27	-0.497457D-04	-0.836726D-04	0.634311D-04	-0.340350D-04	-0.343640D-04
28	0.525820D-04	0.526823D-04	-0.369528D-03	0.932808D-04	0.777655D-04
29	-0.421284D-04	-0.502480D-04	0.105693D-03	-0.212339D-03	-0.122226D-03
30	-0.110353D-03	-0.115869D-03	0.188643D-03	-0.231083D-03	-0.575190D-03
31	0.539950D-07	0.475416D-04	-0.537903D-04	0.153327D-03	0.517283D-04
32	-0.812860D-04	-0.786362D-05	0.217609D-03	-0.180390D-03	-0.227391D-03
33	0.169446D-04	0.103143D-04	0.110286D-04	-0.750536D-04	-0.186369D-03
34	0.202334D-04	0.738594D-05	-0.892797D-04	0.486405D-04	0.128262D-03
35	0.714023D-04	-0.298307D-04	0.674719D-04	-0.252020D-04	0.910846D-04
36	0.109852D-04	0.513464D-04	-0.261767D-03	0.122622D-03	0.264299D-03
37	0.517385D-05	-0.295051D-04	-0.193215D-03	0.124301D-03	0.115261D-03
38	-0.132133D-03	0.490916D-04	-0.890594D-04	0.465085D-04	-0.525214D-04
39	-0.145092D-03	-0.460476D-04	-0.256779D-03	0.748386D-04	0.212186D-03
40	0.240648D-03	-0.630109D-04	0.112304D-03	0.957027D-04	0.363785D-03
41	-0.161782D-04	-0.259134D-05	-0.153957D-05	-0.871783D-05	0.205248D-04
42	0.185032D-04	-0.105990D-04	0.172233D-04	-0.613417D-04	-0.211169D-04

43	0.407388D-04	0.483388D-04	0.369013D-05	0.456230D-04	0.789927D-04
44	-0.136826D-04	-0.157604D-04	-0.227430D-04	-0.197608D-04	-0.398631D-04
45	-0.104572D-04	-0.133866D-04	0.433629D-04	-0.408777D-04	0.362951D-04
46	-0.218965D-05	0.282881D-04	-0.211464D-04	0.787256D-05	0.244601D-04
47	-0.366467D-05	-0.465633D-05	-0.215194D-04	0.767328D-06	0.559220D-05
48	-0.150232D-04	0.132961D-04	-0.348261D-04	0.114975D-04	0.262770D-04
49	0.607193D-03	-0.181720D-03	0.894305D-04	0.373108D-03	0.112722D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.688045D-03				
27	0.106847D-03	0.293222D-03			
28	-0.111931D-03	-0.101360D-03	0.123943D-02		
29	0.565507D-04	0.855861D-04	-0.183370D-03	0.628608D-03	
30	0.145609D-03	0.726939D-04	-0.208457D-03	0.256724D-03	0.115829D-02
31	-0.123700D-03	-0.155494D-03	0.324831D-03	-0.370863D-03	-0.541286D-03
32	0.283708D-04	-0.491430D-04	-0.871127D-04	-0.255119D-04	0.600477D-04
33	0.293257D-04	0.220401D-05	-0.431697D-04	0.513816D-04	0.657371D-04
34	-0.173380D-04	-0.333113D-04	0.485089D-04	-0.552660D-04	-0.850120D-04
35	-0.420905D-04	0.313952D-04	-0.408821D-04	-0.108024D-04	-0.230453D-05
36	-0.556624D-04	0.963001D-04	0.232429D-03	0.858113D-04	-0.404726D-04
37	-0.311449D-04	0.524330D-04	0.131127D-03	-0.417954D-05	-0.221473D-04
38	-0.341247D-04	0.260637D-04	0.721463D-05	-0.107180D-04	-0.901414D-04
39	-0.181005D-06	-0.295660D-04	0.193610D-03	-0.209525D-04	-0.144764D-03
40	-0.173085D-03	-0.230710D-04	0.353389D-03	-0.981789D-04	-0.333458D-03
41	0.117444D-04	0.282244D-04	-0.348870D-04	0.157077D-05	0.438691D-05
42	-0.107527D-04	0.746158D-05	-0.232489D-04	0.387029D-05	0.214570D-04
43	0.230803D-04	-0.473139D-05	0.671222D-04	0.441655D-04	0.453274D-05
44	-0.212674D-04	-0.164887D-04	-0.296487D-04	-0.209572D-04	-0.169095D-04
45	0.443574D-04	0.340800D-04	0.254648D-04	0.376430D-04	0.575627D-04
46	-0.408700D-04	-0.184119D-04	0.217023D-04	-0.187938D-04	0.126318D-04
47	0.275102D-04	-0.243552D-05	0.166977D-04	-0.480700D-05	-0.142321D-04
48	-0.374803D-04	-0.887259D-05	0.695322D-04	-0.441760D-04	-0.214628D-04
49	-0.532491D-03	-0.698393D-04	0.108816D-02	-0.212705D-03	-0.100232D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.198117D-02				
32	-0.193736D-04	0.184396D-01			
33	0.931826D-05	0.245183D-03	0.395096D-02		

34	0.673825D-04	0.234422D-03	-0.238143D-02	0.448581D-02	
35	-0.634305D-04	0.213782D-03	0.383648D-03	-0.726979D-04	0.361159D-02
36	-0.203236D-05	-0.184013D-01	-0.120012D-04	-0.318819D-03	-0.209852D-03
37	0.367038D-04	-0.181702D-01	-0.325499D-03	-0.280104D-03	-0.295584D-03
38	0.134631D-04	0.181583D-02	-0.735689D-04	0.840685D-04	-0.739410D-03
39	0.317214D-04	0.109617D-02	-0.256634D-03	0.235999D-03	-0.484498D-03
40	0.246039D-03	-0.124432D-02	0.776409D-04	0.161231D-03	0.111524D-02
41	-0.201061D-04	-0.123732D-03	-0.249145D-04	0.318511D-04	0.226982D-05
42	-0.306398D-04	-0.227777D-04	0.324694D-04	-0.745393D-04	-0.262502D-04
43	-0.241854D-04	-0.575060D-04	0.341485D-04	0.301387D-04	0.923549D-04
44	-0.961331D-05	-0.133752D-03	-0.443351D-04	-0.214541D-04	-0.993409D-04
45	-0.383766D-04	0.340691D-03	-0.199187D-04	0.123623D-04	0.113801D-04
46	0.184633D-04	-0.332906D-04	0.381533D-04	-0.105093D-03	-0.713667D-04
47	0.509850D-04	-0.137025D-03	-0.178489D-04	0.902752D-04	-0.116306D-03
48	0.775264D-04	0.685705D-04	-0.296002D-04	0.175407D-04	0.268544D-03
49	0.737527D-03	-0.235433D-02	0.130366D-03	0.669264D-03	0.211097D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.252050D-01				
37	0.182962D-01	0.233719D-01			
38	-0.266192D-02	-0.146331D-02	0.306642D-01		
39	-0.165063D-02	-0.135923D-02	0.179511D-01	0.242821D-01	
40	0.209239D-03	-0.376365D-03	-0.170621D-01	-0.534535D-02	0.788029D-01
41	0.332221D-03	-0.945852D-04	-0.205070D-03	-0.194617D-03	0.250696D-03
42	0.100888D-04	0.222902D-04	-0.277938D-03	0.693361D-03	0.679363D-03
43	0.535749D-04	0.231251D-04	-0.181830D-03	-0.834063D-04	0.325292D-03
44	0.721675D-04	0.293561D-03	0.193179D-03	0.263625D-03	-0.535829D-03
45	-0.249770D-03	-0.535799D-03	-0.559044D-04	-0.248892D-03	0.623634D-03
46	-0.254677D-04	0.799829D-04	0.592223D-03	0.481770D-04	-0.613420D-03
47	0.912426D-04	0.162755D-03	-0.163333D-03	0.395362D-03	0.115407D-02
48	-0.296398D-06	0.323377D-04	-0.276866D-04	0.264377D-04	0.660120D-03
49	-0.130012D-02	-0.226957D-02	-0.292691D-01	0.302896D-02	0.215377D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.407185D-03				
42	0.119027D-04	0.121021D-02			
43	0.276009D-05	-0.244171D-04	0.198505D-02		
44	-0.455250D-05	0.315757D-04	-0.111183D-02	0.135604D-02	

45	0.105414D-04	-0.493332D-04	0.596856D-03	-0.120294D-02	0.248368D-02
46	-0.540000D-05	-0.910920D-05	0.183541D-03	-0.878812D-04	0.892572D-05
47	-0.564065D-05	0.931878D-05	-0.115238D-03	0.154925D-03	-0.326440D-04
48	0.378036D-04	-0.137409D-04	0.385911D-04	-0.287863D-04	0.120097D-04
49	0.480661D-03	0.199733D-02	0.843114D-03	-0.131312D-02	0.160326D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.809042D-03			
47	-0.474253D-03	0.883168D-03		
48	0.175004D-03	0.178514D-04	0.900592D-03	
49	-0.147230D-02	0.347003D-02	0.188111D-02	0.606738D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.215	1.000			
3	0.055	0.194	1.000		
4	0.167	0.097	0.269	1.000	
5	-0.123	-0.131	-0.190	-0.260	1.000
6	0.044	-0.007	-0.032	-0.026	0.027
7	0.004	-0.024	0.028	-0.009	-0.036
8	-0.002	0.001	0.038	0.015	0.020
9	0.018	0.011	-0.051	0.031	-0.024
10	0.068	0.046	0.014	0.018	-0.016
11	0.025	0.015	-0.025	-0.002	0.031
12	0.026	0.016	-0.029	-0.014	-0.019
13	0.006	-0.006	-0.020	0.015	-0.029
14	-0.033	0.033	-0.011	0.016	0.003
15	0.011	0.048	0.020	0.024	-0.028
16	-0.017	-0.001	0.002	-0.011	-0.005
17	0.086	0.039	0.030	0.037	-0.039
18	0.019	-0.013	-0.003	0.037	0.037
19	-0.006	0.006	0.011	0.015	0.010
20	0.009	-0.013	-0.009	0.007	0.024
21	0.054	-0.020	-0.025	-0.023	0.016
22	0.011	-0.013	0.008	-0.003	0.021
23	-0.037	0.002	0.036	-0.075	0.036
24	0.024	-0.051	-0.027	-0.007	0.003
25	-0.011	-0.017	-0.055	-0.010	0.033

26	-0.016	0.029	0.003	-0.013	0.026
27	-0.043	-0.010	-0.040	-0.044	-0.017
28	0.004	0.018	0.017	0.017	-0.007
29	-0.022	0.028	-0.022	0.003	-0.019
30	0.004	0.015	0.014	0.013	-0.044
31	0.045	-0.033	0.010	0.056	-0.014
32	-0.021	-0.013	0.020	0.022	0.034
33	0.027	0.063	0.024	0.008	-0.005
34	-0.014	-0.058	-0.041	-0.024	0.050
35	-0.049	-0.086	-0.040	-0.085	0.058
36	0.011	0.002	-0.006	-0.001	-0.047
37	0.017	0.009	-0.003	-0.016	-0.026
38	-0.054	-0.028	0.059	0.036	0.017
39	0.004	0.002	0.031	0.014	0.000
40	0.033	0.048	-0.029	-0.043	-0.067
41	-0.022	0.053	-0.014	-0.042	0.008
42	-0.016	-0.010	-0.001	-0.025	0.008
43	-0.009	-0.003	0.002	-0.020	-0.035
44	0.015	0.011	-0.021	0.029	0.021
45	-0.010	0.043	0.023	0.001	-0.014
46	-0.018	-0.014	0.030	0.020	-0.014
47	0.008	-0.018	-0.004	-0.012	0.008
48	0.031	0.028	-0.007	0.033	-0.006
49	0.028	0.053	-0.021	-0.038	-0.069

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.064	1.000			
8	0.040	-0.021	1.000		
9	-0.068	-0.029	-0.140	1.000	
10	0.002	0.054	0.147	0.232	1.000
11	-0.025	0.079	0.006	-0.004	0.012
12	0.039	-0.019	0.011	-0.035	-0.023
13	0.014	0.011	0.038	-0.024	0.013
14	0.007	-0.016	-0.030	0.001	0.028
15	-0.032	-0.017	-0.032	0.020	0.029
16	-0.032	0.044	0.038	-0.029	0.006
17	0.018	0.003	-0.009	-0.020	0.015
18	0.039	0.005	0.052	-0.021	-0.029
19	0.001	-0.024	-0.001	0.006	0.001
20	-0.001	0.000	0.008	-0.002	0.003

21	-0.047	0.011	-0.032	-0.040	-0.007
22	-0.041	-0.020	-0.006	0.008	-0.002
23	0.011	0.049	0.006	0.037	0.044
24	0.014	-0.058	-0.036	0.026	-0.008
25	0.000	-0.048	-0.019	0.000	0.017
26	-0.015	0.036	0.031	0.000	-0.008
27	0.022	0.020	0.002	-0.006	-0.003
28	0.002	-0.045	-0.007	-0.007	0.001
29	0.007	-0.014	0.003	0.013	0.017
30	0.018	0.050	0.026	0.002	-0.001
31	-0.024	-0.039	0.022	-0.005	-0.023
32	0.007	0.075	0.043	0.036	-0.016
33	-0.001	0.020	0.005	0.050	0.019
34	-0.018	0.000	-0.013	-0.024	-0.016
35	0.016	0.022	0.011	-0.019	-0.004
36	-0.022	-0.041	-0.020	0.005	-0.026
37	0.024	-0.048	-0.021	-0.013	0.000
38	0.003	0.065	0.015	-0.091	0.052
39	0.022	0.038	0.005	-0.063	0.051
40	0.003	-0.026	0.024	0.035	-0.014
41	-0.005	0.046	0.016	0.008	0.030
42	0.012	0.063	0.003	0.050	0.025
43	-0.027	-0.055	0.022	-0.012	-0.037
44	0.026	0.039	-0.025	-0.019	0.005
45	-0.003	-0.021	0.001	0.019	0.035
46	-0.064	0.015	-0.005	-0.051	0.036
47	0.068	-0.036	0.028	0.024	-0.050
48	0.009	0.012	0.025	0.019	0.020
49	0.002	-0.032	0.023	0.019	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.308	1.000			
13	0.084	0.332	1.000		
14	-0.102	-0.184	-0.028	1.000	
15	-0.028	-0.115	-0.179	0.262	1.000
16	-0.016	-0.016	0.005	-0.142	-0.217
17	0.081	0.204	0.117	-0.161	-0.029
18	0.014	0.147	0.302	-0.081	-0.144
19	0.005	-0.027	-0.072	0.074	0.149
20	0.004	0.037	0.070	-0.006	-0.017

21	0.174	0.160	0.092	-0.218	-0.091
22	0.040	0.156	0.167	-0.100	-0.202
23	0.000	-0.035	-0.036	0.151	0.110
24	-0.011	0.004	0.041	-0.023	-0.010
25	0.028	0.012	0.001	-0.062	-0.039
26	-0.080	-0.160	-0.085	0.151	0.047
27	-0.015	-0.075	-0.177	0.052	0.133
28	-0.026	-0.005	0.012	-0.074	-0.176
29	-0.028	-0.007	-0.054	0.032	0.031
30	0.034	0.001	-0.051	0.052	0.047
31	-0.029	-0.016	0.032	0.007	-0.010
32	0.028	0.016	-0.002	0.004	-0.021
33	-0.024	0.032	0.001	0.036	-0.030
34	-0.006	0.005	0.039	-0.047	-0.026
35	0.025	0.025	0.046	0.040	-0.012
36	-0.045	-0.035	-0.022	-0.015	0.012
37	-0.024	-0.029	-0.020	-0.016	0.006
38	0.032	-0.005	0.022	0.033	-0.025
39	0.011	-0.003	0.035	0.039	-0.022
40	-0.011	0.026	0.011	0.014	0.021
41	0.031	-0.008	0.009	-0.002	-0.008
42	-0.016	0.012	0.018	0.003	-0.022
43	0.004	0.003	0.007	0.011	-0.030
44	-0.022	-0.017	-0.039	-0.010	0.007
45	0.044	0.026	0.042	0.011	-0.014
46	0.045	0.013	0.028	0.028	0.024
47	-0.028	-0.028	-0.022	-0.031	-0.008
48	-0.008	0.003	0.009	0.012	-0.013
49	-0.007	0.027	0.016	0.019	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.025	1.000			
18	0.021	0.278	1.000		
19	-0.235	-0.075	-0.138	1.000	
20	0.031	0.121	0.225	-0.255	1.000
21	0.052	0.221	0.121	-0.033	0.027
22	0.070	0.107	0.262	-0.089	0.134
23	-0.241	-0.046	-0.088	0.286	-0.068
24	0.018	0.126	0.075	-0.191	0.362
25	0.028	0.077	0.046	-0.054	0.065

26	-0.017	-0.255	-0.116	-0.024	-0.033
27	-0.030	-0.084	-0.288	0.080	-0.062
28	0.235	0.037	0.048	-0.258	0.090
29	-0.050	-0.101	-0.172	0.149	-0.368
30	-0.028	-0.043	-0.036	0.026	-0.082
31	0.023	0.007	0.079	-0.060	0.096
32	-0.015	-0.011	-0.018	-0.007	-0.045
33	-0.005	-0.026	0.023	0.008	0.000
34	0.028	0.031	0.018	-0.002	0.022
35	-0.034	-0.015	0.012	0.037	-0.010
36	0.032	-0.010	0.003	0.022	0.043
37	-0.008	0.000	0.013	0.028	0.048
38	0.002	-0.017	-0.058	-0.026	-0.010
39	0.040	-0.009	-0.031	-0.046	-0.005
40	0.006	-0.006	-0.004	0.025	-0.020
41	0.019	0.032	-0.015	0.023	-0.029
42	0.016	-0.027	0.012	0.006	-0.037
43	-0.032	0.023	0.024	0.012	0.035
44	0.015	-0.004	0.002	0.000	0.003
45	0.004	-0.009	-0.012	-0.003	-0.039
46	-0.006	0.010	0.007	0.022	0.040
47	0.027	0.011	0.010	-0.041	0.010
48	-0.033	0.032	0.026	0.018	0.027
49	0.011	-0.010	-0.012	0.019	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.253	1.000			
23	-0.094	-0.179	1.000		
24	0.082	0.210	-0.174	1.000	
25	0.149	0.146	-0.187	0.300	1.000
26	-0.296	-0.118	0.027	-0.051	-0.057
27	-0.106	-0.261	0.102	-0.077	-0.041
28	0.054	0.080	-0.288	0.103	0.045
29	-0.061	-0.107	0.116	-0.330	-0.099
30	-0.118	-0.182	0.152	-0.264	-0.345
31	0.000	0.057	-0.033	0.134	0.024
32	-0.022	-0.003	0.044	-0.052	-0.034
33	0.010	0.009	0.005	-0.046	-0.060
34	0.011	0.006	-0.037	0.028	0.039
35	0.043	-0.027	0.031	-0.016	0.031



36	0.003	0.017	-0.045	0.030	0.034
37	0.001	-0.010	-0.035	0.032	0.015
38	-0.027	0.015	-0.014	0.010	-0.006
39	-0.034	-0.016	-0.045	0.019	0.028
40	0.031	-0.012	0.011	0.013	0.026
41	-0.029	-0.007	-0.002	-0.017	0.021
42	0.019	-0.016	0.014	-0.069	-0.012
43	0.033	0.058	0.002	0.040	0.036
44	-0.014	-0.023	-0.017	-0.021	-0.022
45	-0.008	-0.014	0.024	-0.032	0.015
46	-0.003	0.053	-0.020	0.011	0.018
47	-0.004	-0.008	-0.020	0.001	0.004
48	-0.018	0.024	-0.032	0.015	0.018
49	0.028	-0.012	0.003	0.019	0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.238	1.000			
28	-0.121	-0.168	1.000		
29	0.086	0.199	-0.208	1.000	
30	0.163	0.125	-0.174	0.301	1.000
31	-0.106	-0.204	0.207	-0.332	-0.357
32	0.008	-0.021	-0.018	-0.007	0.013
33	0.018	0.002	-0.020	0.033	0.031
34	-0.010	-0.029	0.021	-0.033	-0.037
35	-0.027	0.031	-0.019	-0.007	-0.001
36	-0.013	0.035	0.042	0.022	-0.007
37	-0.008	0.020	0.024	-0.001	-0.004
38	-0.007	0.009	0.001	-0.002	-0.015
39	0.000	-0.011	0.035	-0.005	-0.027
40	-0.024	-0.005	0.036	-0.014	-0.035
41	0.022	0.082	-0.049	0.003	0.006
42	-0.012	0.013	-0.019	0.004	0.018
43	0.020	-0.006	0.043	0.040	0.003
44	-0.022	-0.026	-0.023	-0.023	-0.013
45	0.034	0.040	0.015	0.030	0.034
46	-0.055	-0.038	0.022	-0.026	0.013
47	0.035	-0.005	0.016	-0.006	-0.014
48	-0.048	-0.017	0.066	-0.059	-0.021
49	-0.026	-0.005	0.040	-0.011	-0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	1.000				
32	-0.003	1.000			
33	0.003	0.029	1.000		
34	0.023	0.026	-0.566	1.000	
35	-0.024	0.026	0.102	-0.018	1.000
36	0.000	-0.854	-0.001	-0.030	-0.022
37	0.005	-0.875	-0.034	-0.027	-0.032
38	0.002	0.076	-0.007	0.007	-0.070
39	0.005	0.052	-0.026	0.023	-0.052
40	0.020	-0.033	0.004	0.009	0.066
41	-0.022	-0.045	-0.020	0.024	0.002
42	-0.020	-0.005	0.015	-0.032	-0.013
43	-0.012	-0.010	0.012	0.010	0.034
44	-0.006	-0.027	-0.019	-0.009	-0.045
45	-0.017	0.050	-0.006	0.004	0.004
46	0.015	-0.009	0.021	-0.055	-0.042
47	0.039	-0.034	-0.010	0.045	-0.065
48	0.058	0.017	-0.016	0.009	0.149
49	0.021	-0.022	0.003	0.013	0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	1.000				
37	0.754	1.000			
38	-0.096	-0.055	1.000		
39	-0.067	-0.057	0.658	1.000	
40	0.005	-0.009	-0.347	-0.122	1.000
41	0.104	-0.031	-0.058	-0.062	0.044
42	0.002	0.004	-0.046	0.128	0.070
43	0.008	0.003	-0.023	-0.012	0.026
44	0.012	0.052	0.030	0.046	-0.052
45	-0.032	-0.070	-0.006	-0.032	0.045
46	-0.006	0.018	0.119	0.011	-0.077
47	0.019	0.036	-0.031	0.085	0.138
48	0.000	0.007	-0.005	0.006	0.078
49	-0.011	-0.019	-0.215	0.025	0.985

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.017	1.000			
43	0.003	-0.016	1.000		
44	-0.006	0.025	-0.678	1.000	
45	0.010	-0.028	0.269	-0.655	1.000
46	-0.009	-0.009	0.145	-0.084	0.006
47	-0.009	0.009	-0.087	0.142	-0.022
48	0.062	-0.013	0.029	-0.026	0.008
49	0.031	0.074	0.024	-0.046	0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	46	47	48	49
46	1.000			
47	-0.561	1.000		
48	0.205	0.020	1.000	
49	-0.066	0.150	0.080	1.000

#### TECHNICAL 8 OUTPUT

##### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.009	46
200	1.011	6
300	1.023	40
400	1.008	42
500	1.008	42
600	1.006	49
700	1.010	49
800	1.006	49
900	1.003	49

1000

1.002

10

1696

This is the interaction between latent profile categories and bullying on reducing distress

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000

	58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3		0.448	0.208	0.000	55.17%	0.000	0.000	0.000
	58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		1.426	1.887	1.000	71.96%	1.000	1.000	1.000
	1102.000	0.602	3.132	5.000	0.45%	1.000	2.000	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.165	0.053	0.001	0.060	0.264	*
CHOICE15	0.027	0.041	0.264	-0.050	0.105	
DUTIES15	-0.079	0.045	0.031	-0.166	0.004	
PRESS15	-0.049	0.042	0.117	-0.130	0.034	
KES15	0.821	0.092	0.000	0.635	0.995	*

KES15	WITH					
PHY15		0.106	0.014	0.000	0.079	0.134 *
CHOICE15		-0.097	0.018	0.000	-0.132	-0.062 *
BULLY15		0.074	0.014	0.000	0.047	0.102 *
PRESS15		0.062	0.019	0.001	0.025	0.100 *
DUTIES15		-0.073	0.017	0.000	-0.105	-0.039 *
PHY15	WITH					
CHOICE15		-0.098	0.028	0.001	-0.155	-0.042 *
BULLY15		0.040	0.019	0.023	0.001	0.079 *
PRESS15		0.119	0.027	0.000	0.065	0.173 *
DUTIES15		-0.057	0.026	0.016	-0.109	-0.007 *
CHOICE15	WITH					
BULLY15		-0.135	0.027	0.000	-0.187	-0.082 *
PRESS15		-0.195	0.037	0.000	-0.265	-0.124 *
DUTIES15		0.150	0.035	0.000	0.084	0.224 *
BULLY15	WITH					
PRESS15		0.197	0.026	0.000	0.146	0.251 *
DUTIES15		-0.168	0.025	0.000	-0.220	-0.122 *
PRESS15	WITH					
DUTIES15		-0.286	0.034	0.000	-0.356	-0.217 *
Means						
PHY15		0.000	0.025	0.492	-0.050	0.049
KES15		-0.001	0.017	0.487	-0.033	0.033
CHOICE15		0.000	0.032	0.497	-0.062	0.061
PRESS15		0.000	0.032	0.494	-0.061	0.065
DUTIES15		-0.001	0.031	0.485	-0.057	0.064
Variances						
PHY15		0.703	0.030	0.000	0.648	0.768 *
KES15		0.314	0.013	0.000	0.289	0.342 *
CHOICE15		1.195	0.052	0.000	1.098	1.301 *
BULLY15		0.592	0.026	0.000	0.546	0.649 *
PRESS15		1.159	0.049	0.000	1.070	1.256 *
DUTIES15		1.035	0.045	0.000	0.952	1.123 *
Between Level						
S1	ON					
CLU2		-0.048	0.265	0.415	-0.559	0.465



CLU3	0.157	0.259	0.274	-0.392	0.646	
KESCAT16 ON						
CLU2	-0.151	0.176	0.191	-0.485	0.200	
CLU3	0.051	0.173	0.387	-0.289	0.399	
BULLY15	0.332	0.545	0.268	-0.773	1.394	
CLU2 WITH						
CLU3	-0.137	0.037	0.000	-0.226	-0.076	*
BULLY15	-0.008	0.021	0.326	-0.051	0.030	
CLU3 WITH						
BULLY15	0.020	0.022	0.171	-0.025	0.067	
Means						
CLU2	0.309	0.063	0.000	0.187	0.436	*
CLU3	0.445	0.067	0.000	0.315	0.574	*
BULLY15	1.413	0.043	0.000	1.328	1.495	*
Intercepts						
S1	0.085	0.229	0.348	-0.322	0.567	
Thresholds						
KESCAT16\$1	-0.032	0.745	0.487	-1.533	1.449	
Variances						
CLU2	0.230	0.045	0.000	0.166	0.333	*
CLU3	0.263	0.050	0.000	0.187	0.376	*
BULLY15	0.053	0.014	0.000	0.032	0.088	*
Residual Variances						
KESCAT16	0.030	0.039	0.000	0.001	0.146	*
S1	0.040	0.074	0.000	0.001	0.257	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	95% C.I. Upper 2.5%	Significance
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Within-Level Standardized Estimates Averaged Over Clusters

S1   KESCAT16 ON						
BULLY15	0.093	0.053	0.038	-0.010	0.198	
KESCAT16 ON						
PHY15	0.117	0.037	0.000	0.046	0.187	*
CHOICE15	0.026	0.038	0.258	-0.048	0.099	
DUTIES15	-0.070	0.039	0.029	-0.145	0.002	
PRESS15	-0.046	0.039	0.122	-0.122	0.031	
KES15	0.394	0.039	0.000	0.314	0.467	*
KES15 WITH						
PHY15	0.226	0.028	0.000	0.169	0.279	*
CHOICE15	-0.158	0.030	0.000	-0.216	-0.100	*
BULLY15	0.172	0.030	0.000	0.111	0.231	*
PRESS15	0.103	0.030	0.001	0.043	0.163	*
DUTIES15	-0.128	0.030	0.000	-0.184	-0.068	*
PHY15 WITH						
CHOICE15	-0.107	0.030	0.000	-0.166	-0.047	*
BULLY15	0.061	0.030	0.021	0.002	0.121	*
PRESS15	0.133	0.029	0.000	0.075	0.187	*
DUTIES15	-0.067	0.030	0.015	-0.127	-0.007	*
CHOICE15 WITH						
BULLY15	-0.161	0.031	0.000	-0.220	-0.100	*
PRESS15	-0.166	0.030	0.000	-0.226	-0.107	*
DUTIES15	0.134	0.031	0.000	0.076	0.197	*
BULLY15 WITH						
PRESS15	0.237	0.029	0.000	0.181	0.294	*
DUTIES15	-0.216	0.029	0.000	-0.272	-0.159	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.315	-0.206	*
Means						
PHY15	-0.002	0.030	0.481	-0.058	0.057	
KES15	-0.001	0.030	0.485	-0.061	0.056	
CHOICE15	0.000	0.030	0.496	-0.062	0.056	
PRESS15	0.001	0.030	0.489	-0.060	0.059	
DUTIES15	0.000	0.030	0.498	-0.059	0.061	
Variances						

PHY15	1.000	0.000	0.000	1.000	1.000
KES15	1.000	0.000	0.000	1.000	1.000
CHOICE15	1.000	0.000	0.000	1.000	1.000
BULLY15	1.000	0.000	0.000	1.000	1.000
PRESS15	1.000	0.000	0.000	1.000	1.000
DUTIES15	1.000	0.000	0.000	1.000	1.000

# Between Level

S1	ON					
CLU2		-0.097	0.473	0.415	-1.042	0.729
CLU3		0.315	0.478	0.274	-0.742	1.067
KESCAT16	ON					
CLU2		-0.297	0.328	0.191	-0.945	0.400
CLU3		0.098	0.343	0.387	-0.534	0.795
BULLY15		0.343	0.426	0.268	-0.644	0.892
CLU2	WITH					
CLU3		-0.560	0.088	0.000	-0.706	-0.363 *
BULLY15		-0.077	0.173	0.326	-0.408	0.259
CLU3	WITH					
BULLY15		0.171	0.169	0.171	-0.197	0.477
Means						
CLU2		0.648	0.142	0.000	0.377	0.943 *
CLU3		0.867	0.151	0.000	0.585	1.168 *
BULLY15		6.132	0.791	0.000	4.708	7.875 *
Intercepts						
S1		0.331	0.910	0.348	-1.132	2.274
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
KESCAT16		0.486	0.257	0.000	0.041	0.931 *
S1		0.658	0.276	0.000	0.042	0.985 *

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.255	0.038	0.000	0.182	0.335

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.514	0.257	0.000	0.069	0.959

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.342	0.276	0.000	0.015	0.958

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU				
KESCAT16				
<div><div></div><div>0</div></div>				
NU				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>
NU				
PRESS15	DUTIES15			
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>			

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 1	<hr/> 2	<hr/> 3	<hr/> 0	

ALPHA	
PRESS15	DUTIES15
<hr/> 4	<hr/> 5

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 6	<hr/> 7	<hr/> 8	<hr/> 0	
KESCAT16	0	6	7	8	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA	
PRESS15	DUTIES15
<hr/> 9	<hr/> 10
KESCAT16	10
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 11	<hr/> 13	<hr/> 16	<hr/> 20	
KESCAT16	0	11	13	16	20
PHY15	0	12	15	19	
KES15	0	12	15	19	
CHOICE15	0	14	15	19	
BULLY15	0	17	18	19	

PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	-----	-----
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
-----
49

NU	KESCAT16	CLU2	CLU3	BULLY15
	-----	-----	-----	-----
	0	0	0	0

	LAMBDA				
	S1	KESCAT16	CLU2	CLU3	BULLY15
	-----	-----	-----	-----	-----
KESCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

	THETA			
	KESCAT16	CLU2	CLU3	BULLY15
	-----	-----	-----	-----
KESCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
BULLY15	0	0	0	0

ALPHA					
S1		KESCAT16	CLU2	CLU3	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	32	0	33	34	35

BETA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
S1	0	0	36	37	0
KESCAT16	0	0	38	39	40
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
BULLY15	0	0	0	0	0

	PSI				
	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	41				
KESCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
BULLY15	0	0	46	47	48

STARTING VALUES FOR WITHIN

TAU	
KESCAT16	
<hr/>	<hr/>
0.000	

NU					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000	

NU		
PRESS15	DUTIES15	
<hr/>	<hr/>	



0.000            0.000

LAMBDA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

ALPHA	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<u>0.000</u>	<u>0.000</u>	
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>1.000</u>	<u>0.351</u>	<u>0.157</u>	<u></u>	<u></u>	
KESCAT16	0.000				
PHY15	0.000				
KES15	0.000				

CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.580
DUTIES15	0.000
	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
-0.352

NU	KESCAT16	CLU2	CLU3	BULLY15
	0.000	0.000	0.000	0.000

LAMBDA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
KESCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000

THETA				
	KESCAT16	CLU2	CLU3	BULLY15
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000

ALPHA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
	0.000	0.000	0.380	0.495	1.426
BETA					
	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PSI					
	S1	KESCAT16	CLU2	CLU3	BULLY15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.118		
CLU3	0.000	0.000	0.000	0.125	
BULLY15	0.000	0.000	0.000	0.000	0.301

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity

Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

## ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1	2	3	4	5
_____	_____	_____	_____	_____

1	0.635419D-03				
2	0.850613D-04	0.273567D-03			
3	-0.829451D-04	-0.641469D-04	0.103707D-02		
4	0.131930D-03	0.359025D-04	-0.119147D-03	0.103640D-02	
5	-0.940324D-04	-0.574310D-04	0.154808D-03	-0.255066D-03	0.938998D-03
6	0.594216D-04	-0.482585D-05	-0.582561D-04	-0.207519D-04	0.180815D-04
7	0.476459D-04	-0.328924D-04	0.362274D-04	-0.618432D-04	-0.115739D-03
8	0.585965D-05	-0.207383D-04	0.665287D-04	0.541243D-05	-0.686121D-05
9	0.228691D-04	0.632564D-05	-0.516359D-04	0.668947D-04	-0.392050D-04
10	0.642094D-04	0.297747D-04	-0.194496D-04	0.261407D-04	-0.190526D-04
11	0.220081D-04	0.108752D-04	-0.354762D-04	0.123364D-04	0.137698D-04
12	0.929605D-05	0.365972D-05	-0.166517D-04	-0.191094D-05	-0.131148D-04
13	0.581599D-05	0.306071D-05	-0.309570D-05	0.180212D-04	-0.211826D-04
14	-0.173211D-04	0.269825D-04	-0.277631D-04	0.346604D-04	-0.158392D-04
15	0.278691D-05	0.169599D-04	-0.475933D-05	0.120988D-04	-0.138689D-04
16	-0.800964D-05	0.730863D-06	0.748765D-05	0.128734D-04	-0.174152D-04
17	0.417461D-04	0.981836D-05	0.128068D-04	0.173103D-04	-0.156911D-04
18	0.884943D-05	-0.257036D-05	-0.116407D-05	0.207211D-04	0.114890D-04
19	-0.679248D-05	0.526256D-05	0.636334D-05	0.213803D-05	0.685926D-05
20	0.402334D-05	-0.162231D-05	-0.100127D-04	0.204811D-04	-0.213198D-05
21	0.367832D-04	-0.960168D-05	-0.199583D-04	-0.113448D-04	0.682681D-05
22	0.604984D-05	-0.378580D-05	0.944476D-05	-0.136927D-05	0.130166D-04
23	-0.336719D-04	-0.132194D-05	0.485343D-04	-0.107140D-03	0.580259D-04
24	0.164629D-04	-0.193690D-04	-0.976391D-05	0.421452D-05	-0.135526D-04
25	-0.574250D-05	-0.157625D-05	-0.736544D-04	0.380587D-04	-0.237237D-05
26	-0.136108D-04	0.832189D-05	0.348672D-05	-0.207579D-04	0.303266D-04
27	-0.175519D-04	-0.251013D-05	-0.142920D-04	-0.161864D-04	-0.165237D-04
28	0.981193D-06	0.772398D-05	0.206374D-04	0.200467D-04	0.736345D-05
29	-0.148192D-04	0.920992D-05	-0.258510D-04	-0.368124D-05	-0.832258D-05
30	0.411601D-05	0.799518D-05	0.117158D-04	0.663588D-05	-0.359489D-04
31	0.408323D-04	-0.345937D-04	0.231276D-04	0.508512D-04	0.544818D-05
32	-0.230977D-03	-0.319346D-04	0.278790D-03	0.121900D-03	0.276919D-03
33	0.413250D-04	0.586082D-04	0.251677D-04	-0.784273D-05	0.119593D-04
34	-0.285593D-04	-0.679288D-04	-0.523209D-04	-0.314983D-04	0.890141D-04
35	0.356706D-04	0.317572D-04	-0.772392D-04	0.166640D-03	-0.150143D-03
36	0.101632D-03	-0.434870D-05	-0.208030D-03	-0.130000D-03	-0.303606D-03
37	0.246887D-03	0.639996D-04	-0.257157D-03	-0.188097D-03	-0.254751D-03
38	-0.140134D-03	-0.822326D-04	0.186702D-03	0.645146D-04	0.539408D-04
39	0.234567D-04	-0.305634D-04	-0.330483D-04	0.120968D-03	-0.852318D-04
40	0.244395D-04	0.345653D-04	-0.135339D-03	-0.735177D-03	-0.115984D-03
41	-0.671571D-04	0.242544D-04	-0.323887D-04	-0.734841D-04	0.144206D-04
42	0.166966D-05	-0.152860D-04	-0.152715D-04	0.655055D-05	0.150558D-05
43	-0.165231D-04	-0.144240D-05	-0.226620D-04	-0.378776D-04	-0.374072D-04
44	0.218789D-04	0.127867D-04	-0.121143D-04	0.540776D-04	0.500610D-07

45	-0.127816D-04	0.306151D-04	-0.196102D-05	-0.704489D-05	-0.246283D-06
46	-0.149204D-04	-0.112835D-04	0.206152D-04	0.765468D-05	-0.258974D-05
47	0.559572D-05	-0.880357D-06	-0.464259D-05	-0.605929D-05	0.775971D-05
48	0.522440D-05	0.646188D-05	-0.104623D-04	-0.992877D-05	-0.132336D-05
49	-0.725741D-04	0.382548D-04	-0.213735D-03	-0.954894D-03	-0.181720D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.281902D-02				
7	-0.341436D-03	0.847408D-02			
8	0.102136D-03	0.419009D-03	0.164888D-02		
9	-0.125896D-03	-0.943911D-04	0.183786D-03	0.174564D-02	
10	-0.106017D-04	0.194380D-03	-0.154986D-03	0.443671D-03	0.199991D-02
11	-0.353880D-04	0.223519D-03	0.480257D-04	-0.655703D-05	0.134216D-04
12	0.281259D-04	-0.987523D-05	-0.989039D-05	-0.244808D-04	-0.146661D-04
13	0.115110D-04	0.254173D-04	0.188127D-04	-0.109498D-05	-0.513898D-05
14	0.317715D-04	-0.264032D-04	-0.608046D-04	-0.437463D-06	0.350008D-04
15	-0.262718D-04	-0.262237D-05	-0.232627D-04	0.752862D-05	0.186812D-04
16	-0.823456D-04	0.120265D-03	0.144986D-03	-0.581845D-04	-0.393886D-05
17	0.972559D-05	0.345476D-04	-0.155584D-04	-0.402372D-05	-0.442412D-05
18	0.270597D-04	0.979773D-05	0.105579D-04	-0.420016D-06	-0.225613D-04
19	0.134576D-05	-0.566614D-04	-0.150019D-05	-0.148634D-04	0.178559D-04
20	-0.535473D-05	0.301279D-04	0.192545D-05	0.301899D-05	-0.101636D-04
21	-0.602644D-04	0.766736D-04	-0.293717D-06	-0.339991D-04	-0.675106D-05
22	-0.394000D-04	-0.327926D-04	-0.715823D-05	0.772643D-05	-0.122413D-05
23	0.536994D-05	0.146391D-03	0.208123D-04	0.722222D-04	0.521499D-04
24	0.362457D-04	-0.680880D-04	-0.515337D-04	0.301233D-04	-0.153761D-04
25	0.930590D-05	-0.203936D-03	-0.806028D-05	0.117992D-04	0.500360D-04
26	-0.218628D-04	0.556917D-04	0.157440D-04	0.165890D-04	-0.196373D-04
27	0.185161D-04	0.215853D-04	-0.794529D-05	-0.728675D-05	-0.497659D-05
28	0.215932D-04	-0.152894D-03	-0.310011D-04	-0.357931D-04	0.193095D-04
29	0.592977D-05	-0.303217D-04	-0.893210D-05	0.240882D-04	0.224294D-04
30	0.420265D-04	0.140806D-03	0.647059D-04	0.152898D-04	-0.188374D-04
31	-0.576038D-04	-0.139236D-03	0.792640D-04	0.317869D-06	-0.513093D-04
32	-0.399541D-03	-0.180203D-02	0.498783D-03	-0.709251D-03	0.447093D-03
33	-0.565242D-05	0.908653D-04	-0.406522D-04	0.990579D-04	0.821733D-04
34	-0.805456D-04	-0.557029D-05	-0.156430D-05	-0.586452D-04	-0.590526D-04
35	0.541302D-04	0.495828D-04	0.642057D-06	-0.355060D-04	-0.444949D-05
36	0.457515D-03	0.119308D-02	-0.584708D-03	0.273169D-03	-0.165805D-03
37	0.469215D-03	0.204282D-02	-0.302745D-03	0.161066D-03	-0.770198D-04
38	0.300291D-03	0.893170D-03	-0.100649D-03	-0.458782D-03	0.242570D-03
39	0.520593D-03	0.398981D-03	0.159786D-03	-0.373909D-03	0.204195D-03

40	-0.736273D-03	0.190846D-02	0.107691D-03	0.614052D-03	0.132026D-03
41	-0.217354D-04	0.242789D-03	0.110350D-03	0.654584D-04	0.781256D-04
42	0.592964D-04	0.270347D-03	0.935832D-04	0.659461D-04	0.902934D-04
43	-0.430245D-04	-0.254972D-03	0.224916D-04	0.247050D-04	-0.931994D-04
44	0.170201D-04	0.142445D-03	0.285685D-05	-0.668213D-04	0.353703D-04
45	0.189991D-04	-0.119115D-03	-0.228482D-04	0.733291D-04	0.508903D-04
46	-0.353745D-04	-0.355650D-05	-0.120680D-04	-0.440569D-04	0.305843D-04
47	0.459097D-04	-0.267894D-04	0.271622D-04	0.355562D-04	-0.524287D-04
48	-0.925305D-05	-0.593315D-05	-0.370169D-05	0.171648D-04	0.131384D-04
49	-0.727896D-03	0.219754D-02	0.230696D-03	0.509782D-03	0.409606D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.909025D-03				
12	0.133707D-03	0.205536D-03			
13	0.345635D-04	0.640312D-04	0.180644D-03		
14	-0.996306D-04	-0.808684D-04	-0.139314D-04	0.779735D-03	
15	-0.200378D-04	-0.346509D-04	-0.498989D-04	0.133249D-03	0.341813D-03
16	-0.199345D-04	-0.634084D-05	0.808306D-05	-0.205470D-03	-0.213801D-03
17	0.514468D-04	0.593291D-04	0.320184D-04	-0.840515D-04	-0.761407D-05
18	0.676519D-05	0.284093D-04	0.564401D-04	-0.278696D-04	-0.376871D-04
19	0.542317D-05	-0.148065D-04	-0.283136D-04	0.554426D-04	0.756687D-04
20	0.594005D-05	0.173012D-04	0.229060D-04	-0.127297D-04	-0.116401D-04
21	0.144774D-03	0.635738D-04	0.346657D-04	-0.177509D-03	-0.509719D-04
22	0.231171D-04	0.421815D-04	0.421366D-04	-0.531823D-04	-0.745217D-04
23	-0.274748D-05	-0.238560D-04	-0.203887D-04	0.154453D-03	0.845647D-04
24	-0.162248D-05	0.768792D-05	0.153309D-04	-0.186697D-04	-0.422651D-05
25	0.407260D-04	0.865856D-05	0.813707D-06	-0.820135D-04	-0.325153D-04
26	-0.634289D-04	-0.603649D-04	-0.301572D-04	0.112700D-03	0.272786D-04
27	-0.821053D-05	-0.184260D-04	-0.409637D-04	0.235193D-04	0.417031D-04
28	-0.257706D-04	0.302674D-06	0.905059D-05	-0.720119D-04	-0.119803D-03
29	-0.224068D-04	-0.543011D-05	-0.188301D-04	0.274417D-04	0.147831D-04
30	0.337834D-04	0.508002D-06	-0.235512D-04	0.460677D-04	0.302012D-04
31	-0.382872D-04	-0.106205D-04	0.197210D-04	0.916389D-05	-0.126409D-04
32	0.236066D-03	0.110663D-03	-0.509517D-04	-0.173426D-03	-0.807776D-04
33	-0.426983D-04	0.293024D-04	0.146048D-05	0.564114D-04	-0.394341D-04
34	-0.110309D-04	0.589185D-05	0.362465D-04	-0.814163D-04	-0.254777D-04
35	0.466808D-04	0.242105D-04	0.216205D-04	0.224703D-04	0.626386D-05
36	-0.436489D-03	-0.132293D-03	-0.200453D-04	0.461831D-04	0.532578D-04
37	-0.185709D-03	-0.132723D-03	-0.313776D-04	0.110430D-03	0.304578D-04
38	0.628120D-04	0.287525D-04	0.584373D-04	0.157104D-03	-0.995576D-04
39	0.857792D-04	0.563041D-04	0.415964D-04	0.208359D-03	-0.210074D-04



40	-0.656718D-04	-0.617682D-04	0.328365D-03	-0.292331D-03	-0.306468D-03
41	0.131591D-03	0.212852D-05	0.820550D-05	-0.243210D-04	-0.401401D-04
42	0.656561D-06	0.546792D-05	0.223620D-04	0.189684D-04	-0.103167D-04
43	-0.101103D-04	0.847794D-06	-0.350083D-05	-0.414510D-05	-0.167836D-04
44	-0.154805D-04	-0.953089D-05	-0.130310D-04	0.113567D-04	0.730891D-05
45	0.703905D-04	0.230272D-04	0.226053D-04	0.310919D-05	-0.146083D-04
46	0.180360D-04	0.487094D-05	0.570342D-05	0.255571D-05	0.137860D-04
47	-0.120756D-04	-0.149437D-04	-0.837401D-05	-0.579986D-05	-0.101094D-04
48	0.895497D-06	0.159835D-05	0.306204D-05	-0.244368D-05	-0.137556D-04
49	-0.609119D-05	-0.208505D-04	0.526913D-03	-0.235834D-03	-0.405565D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.265376D-02				
17	0.965813D-05	0.379493D-03			
18	0.136167D-04	0.725955D-04	0.187836D-03		
19	-0.284015D-03	-0.454772D-04	-0.574012D-04	0.732707D-03	
20	0.436344D-04	0.686440D-04	0.815749D-04	-0.189931D-03	0.657407D-03
21	0.771944D-04	0.115894D-03	0.449637D-04	-0.277459D-04	0.230718D-04
22	0.705137D-04	0.397236D-04	0.671209D-04	-0.493522D-04	0.651944D-04
23	-0.455952D-03	-0.345996D-04	-0.468463D-04	0.274534D-03	-0.620122D-04
24	0.190488D-04	0.663081D-04	0.233610D-04	-0.155192D-03	0.240822D-03
25	0.934781D-04	0.672746D-04	0.330110D-04	-0.727477D-04	0.830901D-04
26	-0.345089D-04	-0.128583D-03	-0.410690D-04	-0.268231D-05	-0.279784D-04
27	-0.232637D-04	-0.264688D-04	-0.649100D-04	0.309408D-04	-0.240072D-04
28	0.413638D-03	0.207851D-04	0.238341D-04	-0.224416D-03	0.784836D-04
29	-0.516828D-04	-0.478494D-04	-0.572300D-04	0.102204D-03	-0.238125D-03
30	-0.485142D-04	-0.225300D-04	-0.150521D-04	0.258191D-04	-0.677764D-04
31	0.544533D-04	0.209693D-05	0.470307D-04	-0.833334D-04	0.103356D-03
32	-0.284991D-03	0.141244D-04	-0.127922D-04	-0.191704D-03	-0.262545D-03
33	-0.254048D-04	-0.242535D-04	0.195710D-04	0.213802D-04	0.519052D-05
34	0.124728D-03	0.309081D-04	0.924209D-05	0.276737D-05	0.245917D-04
35	0.117095D-03	0.314663D-04	0.170628D-04	-0.568806D-04	0.237117D-04
36	0.379089D-03	-0.879370D-04	-0.574104D-05	0.254590D-03	0.316109D-03
37	0.218816D-04	-0.386139D-04	0.747888D-05	0.328855D-03	0.307441D-03
38	-0.141492D-03	-0.139061D-03	-0.107533D-03	-0.103207D-03	0.376611D-04
39	0.159348D-04	-0.966544D-04	-0.854083D-04	-0.162812D-03	0.451978D-04
40	0.144733D-02	0.122247D-03	0.206761D-03	0.925019D-03	-0.496268D-03
41	0.106246D-03	-0.182477D-04	-0.108091D-04	0.500832D-04	-0.238149D-04
42	-0.469714D-04	-0.218221D-04	0.795184D-05	-0.286646D-05	-0.544459D-04
43	-0.104303D-03	0.157928D-04	-0.299893D-05	0.398632D-04	0.312657D-04
44	0.423599D-04	-0.557542D-05	0.669691D-05	-0.762766D-05	-0.593426D-05

45	0.342785D-05	-0.472953D-05	-0.137553D-04	0.213226D-04	-0.340435D-04
46	-0.178591D-04	0.143971D-05	0.577114D-05	-0.195370D-04	0.177563D-04
47	0.408456D-04	0.432450D-05	0.654523D-05	0.165217D-05	0.606152D-05
48	0.149626D-04	0.720575D-05	0.998914D-05	-0.479825D-05	0.109266D-04
49	0.204519D-02	0.529985D-04	0.244693D-03	0.116666D-02	-0.760963D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.754056D-03				
22	0.129925D-03	0.349660D-03			
23	-0.101493D-03	-0.124011D-03	0.133374D-02		
24	0.555325D-04	0.100494D-03	-0.161280D-03	0.665325D-03	
25	0.198749D-03	0.133533D-03	-0.374153D-03	0.366123D-03	0.240213D-02
26	-0.213446D-03	-0.577581D-04	0.311102D-04	-0.429369D-04	-0.717283D-04
27	-0.504309D-04	-0.838224D-04	0.625102D-04	-0.311737D-04	-0.343351D-04
28	0.565147D-04	0.557544D-04	-0.371101D-03	0.961572D-04	0.816494D-04
29	-0.413225D-04	-0.508092D-04	0.105800D-03	-0.218111D-03	-0.118161D-03
30	-0.109580D-03	-0.115198D-03	0.189569D-03	-0.217766D-03	-0.572092D-03
31	-0.138186D-06	0.468324D-04	-0.542140D-04	0.150789D-03	0.491918D-04
32	-0.837545D-04	-0.571167D-04	0.155243D-03	-0.233531D-03	-0.262178D-03
33	0.188146D-04	0.885027D-05	0.984935D-05	-0.687275D-04	-0.188919D-03
34	0.213989D-04	0.963479D-05	-0.952192D-04	0.526715D-04	0.131960D-03
35	0.382787D-04	-0.177362D-04	-0.335977D-04	0.523653D-04	0.841297D-04
36	-0.501222D-04	0.800219D-04	-0.268387D-03	0.114755D-03	0.205579D-03
37	-0.452984D-04	-0.189689D-05	-0.103919D-03	0.172645D-03	0.599072D-04
38	-0.135196D-03	0.242924D-04	-0.372241D-04	0.107855D-03	0.254522D-04
39	-0.139204D-03	-0.789823D-04	-0.111981D-03	0.103924D-03	0.141679D-03
40	0.550310D-03	0.331696D-03	0.636667D-03	0.566841D-03	0.731474D-03
41	-0.562835D-04	0.974192D-05	0.287698D-05	-0.128982D-04	0.856322D-04
42	0.792612D-06	-0.688169D-05	0.646825D-04	-0.584601D-04	-0.641034D-04
43	0.405437D-04	0.337135D-04	0.517928D-05	0.548914D-04	0.638222D-04
44	-0.956278D-05	-0.120417D-04	-0.251797D-04	-0.386352D-04	-0.434587D-04
45	-0.200291D-04	-0.119648D-04	0.555144D-04	-0.353299D-04	0.395277D-04
46	0.712075D-05	0.178529D-04	-0.472269D-05	-0.138154D-05	0.189003D-04
47	-0.177998D-04	-0.498617D-05	0.448533D-05	-0.171293D-04	-0.816355D-05
48	-0.927930D-05	0.575537D-05	-0.217734D-04	0.761121D-05	0.207924D-04
49	0.709410D-03	0.441424D-03	0.782922D-03	0.910785D-03	0.121234D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.688300D-03				
27	0.106736D-03	0.293075D-03			
28	-0.124607D-03	-0.106043D-03	0.125125D-02		
29	0.586111D-04	0.841651D-04	-0.185292D-03	0.638322D-03	
30	0.145340D-03	0.724271D-04	-0.215983D-03	0.247388D-03	0.115587D-02
31	-0.124078D-03	-0.155288D-03	0.320318D-03	-0.353525D-03	-0.540486D-03
32	0.104925D-03	-0.355048D-04	0.189921D-04	-0.777835D-04	0.323852D-04
33	0.274980D-04	0.195616D-05	-0.503843D-04	0.540092D-04	0.637423D-04
34	-0.149048D-04	-0.333937D-04	0.496114D-04	-0.593670D-04	-0.824624D-04
35	-0.725644D-04	0.118613D-04	0.518537D-04	-0.614951D-04	-0.211839D-04
36	-0.121817D-03	0.103485D-03	0.351850D-03	0.135538D-03	0.500713D-04
37	-0.144405D-03	0.429852D-04	0.174008D-03	0.305240D-04	0.398949D-04
38	-0.682683D-04	-0.927576D-04	-0.132039D-05	-0.227263D-04	-0.945374D-04
39	-0.849387D-04	-0.870112D-04	0.629895D-04	0.323318D-05	-0.232084D-04
40	0.191961D-04	-0.127205D-03	0.169669D-03	0.679733D-05	-0.640549D-03
41	0.400609D-04	0.763549D-04	-0.141275D-04	-0.355049D-04	-0.193429D-05
42	-0.696600D-05	0.185054D-04	-0.125661D-04	0.110378D-04	0.606789D-04
43	0.329154D-04	0.144541D-04	0.446656D-04	0.534440D-04	0.119051D-04
44	-0.309405D-04	-0.256470D-04	-0.168548D-04	-0.207886D-04	-0.220011D-04
45	0.492102D-04	0.377998D-04	0.146084D-04	0.336190D-04	0.661891D-04
46	-0.198306D-04	-0.140846D-04	0.687024D-05	-0.213313D-05	0.136228D-04
47	0.218514D-04	-0.206249D-05	0.662575D-05	-0.541387D-06	-0.100519D-04
48	-0.117867D-04	-0.638254D-05	0.356664D-04	-0.160678D-04	-0.427094D-05
49	-0.501750D-04	-0.249315D-03	0.205447D-03	0.944113D-04	-0.886241D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.198196D-02				
32	0.122322D-04	0.524809D-01			
33	0.145872D-04	0.353362D-03	0.394399D-02		
34	0.628807D-04	0.361977D-03	-0.237196D-02	0.448752D-02	
35	-0.397520D-04	0.338936D-03	-0.212617D-03	0.343843D-03	0.185646D-02
36	0.218623D-04	-0.515853D-01	-0.361898D-04	-0.380040D-03	-0.408383D-03
37	0.716529D-04	-0.521067D-01	-0.415893D-03	-0.593933D-03	-0.429861D-03
38	-0.131154D-04	-0.318800D-02	-0.477621D-03	0.112600D-03	0.736423D-04
39	-0.228112D-04	-0.266492D-02	-0.670441D-03	0.164375D-03	0.490364D-03
40	0.422016D-03	-0.139205D-01	0.115260D-02	-0.256333D-03	-0.562286D-03
41	0.258657D-05	-0.237121D-03	-0.615299D-04	0.180187D-03	0.574169D-04
42	0.145135D-05	0.588845D-03	-0.316863D-04	-0.469662D-04	0.199127D-04
43	-0.463894D-04	-0.246405D-03	0.255834D-04	0.547879D-04	0.290738D-04
44	-0.363806D-05	0.173613D-04	-0.413223D-04	-0.391863D-04	-0.157809D-04
45	-0.369972D-04	0.351241D-03	-0.294208D-04	0.254780D-04	-0.474627D-04

46	0.204550D-05	0.469536D-04	0.320799D-04	-0.711939D-04	-0.502590D-04
47	0.362662D-04	-0.175185D-03	0.645130D-06	0.406921D-04	-0.688842D-04
48	0.209801D-04	0.136395D-03	-0.567841D-05	0.212853D-04	0.961588D-05
49	0.529587D-03	-0.225695D-01	0.120419D-02	-0.281825D-03	-0.422731D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.700391D-01				
37	0.532737D-01	0.668759D-01			
38	0.408295D-02	0.291100D-02	0.310072D-01		
39	0.334738D-02	0.347780D-02	0.216208D-01	0.299954D-01	
40	0.111501D-01	0.125763D-01	-0.173452D-01	-0.324037D-01	0.297059D+00
41	0.202590D-02	0.191748D-02	-0.111521D-02	-0.717332D-03	0.839992D-04
42	-0.689799D-03	-0.488250D-03	-0.986080D-04	0.740426D-03	-0.205208D-02
43	0.293043D-03	0.248245D-03	0.714107D-04	-0.165792D-04	-0.822027D-04
44	-0.493634D-04	0.140276D-03	0.157504D-04	0.193723D-03	-0.465265D-03
45	-0.277063D-03	-0.578087D-03	-0.857367D-04	-0.239988D-03	-0.455045D-04
46	-0.123814D-03	-0.205212D-04	0.217309D-05	0.998208D-04	-0.989763D-03
47	0.159612D-03	0.178823D-03	-0.255329D-03	-0.338301D-03	0.179787D-02
48	-0.999091D-04	-0.886836D-04	-0.106997D-03	-0.567010D-04	-0.457749D-04
49	0.184191D-01	0.203148D-01	-0.378732D-02	-0.238797D-01	0.398874D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.544754D-02				
42	-0.137274D-04	0.152034D-02			
43	-0.621337D-04	-0.416112D-04	0.204094D-02		
44	0.500650D-04	0.310352D-04	-0.115187D-02	0.135887D-02	
45	-0.441404D-04	-0.145336D-04	0.628444D-03	-0.119179D-02	0.246562D-02
46	-0.828797D-04	0.213292D-04	-0.126774D-03	0.122227D-03	-0.116793D-03
47	-0.126665D-04	-0.403559D-04	0.740409D-04	-0.879000D-04	0.176816D-03
48	0.636120D-04	0.281671D-05	0.773966D-05	-0.173506D-04	0.277940D-04
49	-0.112191D-02	-0.258273D-02	-0.131906D-03	-0.513859D-03	-0.348713D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.427885D-03			
47	-0.259488D-03	0.485660D-03		

48 -0.330673D-04 0.710069D-04 0.201635D-03  
 49 -0.130545D-02 0.227296D-02 -0.147447D-03 0.555249D+00

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.204	1.000			
3	-0.102	-0.120	1.000		
4	0.163	0.067	-0.115	1.000	
5	-0.122	-0.113	0.157	-0.259	1.000
6	0.044	-0.005	-0.034	-0.012	0.011
7	0.021	-0.022	0.012	-0.021	-0.041
8	0.006	-0.031	0.051	0.004	-0.006
9	0.022	0.009	-0.038	0.050	-0.031
10	0.057	0.040	-0.014	0.018	-0.014
11	0.029	0.022	-0.037	0.013	0.015
12	0.026	0.015	-0.036	-0.004	-0.030
13	0.017	0.014	-0.019	0.042	-0.051
14	-0.025	0.058	-0.031	0.039	-0.019
15	0.006	0.055	-0.008	0.020	-0.024
16	-0.006	0.001	0.005	0.008	-0.011
17	0.085	0.030	0.020	0.028	-0.026
18	0.026	-0.011	-0.003	0.047	0.027
19	-0.010	0.012	0.007	0.002	0.008
20	0.006	-0.004	-0.012	0.025	-0.003
21	0.053	-0.021	-0.023	-0.013	0.008
22	0.013	-0.012	0.016	-0.002	0.023
23	-0.037	-0.002	0.041	-0.091	0.052
24	0.025	-0.045	-0.012	0.005	-0.017
25	-0.005	-0.002	-0.047	0.024	-0.002
26	-0.021	0.019	0.004	-0.025	0.038
27	-0.041	-0.009	-0.026	-0.029	-0.031
28	0.001	0.013	0.018	0.018	0.007
29	-0.023	0.022	-0.032	-0.005	-0.011
30	0.005	0.014	0.011	0.006	-0.035
31	0.036	-0.047	0.016	0.035	0.004
32	-0.040	-0.008	0.038	0.017	0.039
33	0.026	0.056	0.012	-0.004	0.006
34	-0.017	-0.061	-0.024	-0.015	0.043
35	0.033	0.045	-0.056	0.120	-0.114
36	0.015	-0.001	-0.024	-0.015	-0.037
37	0.038	0.015	-0.031	-0.023	-0.032

38	-0.032	-0.028	0.033	0.011	0.010
39	0.005	-0.011	-0.006	0.022	-0.016
40	0.002	0.004	-0.008	-0.042	-0.007
41	-0.036	0.020	-0.014	-0.031	0.006
42	0.002	-0.024	-0.012	0.005	0.001
43	-0.015	-0.002	-0.016	-0.026	-0.027
44	0.024	0.021	-0.010	0.046	0.000
45	-0.010	0.037	-0.001	-0.004	0.000
46	-0.029	-0.033	0.031	0.011	-0.004
47	0.010	-0.002	-0.007	-0.009	0.011
48	0.015	0.028	-0.023	-0.022	-0.003
49	-0.004	0.003	-0.009	-0.040	-0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.070	1.000			
8	0.047	0.112	1.000		
9	-0.057	-0.025	0.108	1.000	
10	-0.004	0.047	-0.085	0.237	1.000
11	-0.022	0.081	0.039	-0.005	0.010
12	0.037	-0.007	-0.017	-0.041	-0.023
13	0.016	0.021	0.034	-0.002	-0.009
14	0.021	-0.010	-0.054	0.000	0.028
15	-0.027	-0.002	-0.031	0.010	0.023
16	-0.030	0.025	0.069	-0.027	-0.002
17	0.009	0.019	-0.020	-0.005	-0.005
18	0.037	0.008	0.019	-0.001	-0.037
19	0.001	-0.023	-0.001	-0.013	0.015
20	-0.004	0.013	0.002	0.003	-0.009
21	-0.041	0.030	0.000	-0.030	-0.005
22	-0.040	-0.019	-0.009	0.010	-0.001
23	0.003	0.044	0.014	0.047	0.032
24	0.026	-0.029	-0.049	0.028	-0.013
25	0.004	-0.045	-0.004	0.006	0.023
26	-0.016	0.023	0.015	0.015	-0.017
27	0.020	0.014	-0.011	-0.010	-0.007
28	0.011	-0.047	-0.022	-0.024	0.012
29	0.004	-0.013	-0.009	0.023	0.020
30	0.023	0.045	0.047	0.011	-0.012
31	-0.024	-0.034	0.044	0.000	-0.026
32	-0.033	-0.085	0.054	-0.074	0.044

33	-0.002	0.016	-0.016	0.038	0.029
34	-0.023	-0.001	-0.001	-0.021	-0.020
35	0.024	0.013	0.000	-0.020	-0.002
36	0.033	0.049	-0.054	0.025	-0.014
37	0.034	0.086	-0.029	0.015	-0.007
38	0.032	0.055	-0.014	-0.062	0.031
39	0.057	0.025	0.023	-0.052	0.026
40	-0.025	0.038	0.005	0.027	0.005
41	-0.006	0.036	0.037	0.021	0.024
42	0.029	0.075	0.059	0.040	0.052
43	-0.018	-0.061	0.012	0.013	-0.046
44	0.009	0.042	0.002	-0.043	0.021
45	0.007	-0.026	-0.011	0.035	0.023
46	-0.032	-0.002	-0.014	-0.051	0.033
47	0.039	-0.013	0.030	0.039	-0.053
48	-0.012	-0.005	-0.006	0.029	0.021
49	-0.018	0.032	0.008	0.016	0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.309	1.000			
13	0.085	0.332	1.000		
14	-0.118	-0.202	-0.037	1.000	
15	-0.036	-0.131	-0.201	0.258	1.000
16	-0.013	-0.009	0.012	-0.143	-0.224
17	0.088	0.212	0.122	-0.155	-0.021
18	0.016	0.145	0.306	-0.073	-0.149
19	0.007	-0.038	-0.078	0.073	0.151
20	0.008	0.047	0.066	-0.018	-0.025
21	0.175	0.161	0.094	-0.231	-0.100
22	0.041	0.157	0.168	-0.102	-0.216
23	-0.002	-0.046	-0.042	0.151	0.125
24	-0.002	0.021	0.044	-0.026	-0.009
25	0.028	0.012	0.001	-0.060	-0.036
26	-0.080	-0.160	-0.086	0.154	0.056
27	-0.016	-0.075	-0.178	0.049	0.132
28	-0.024	0.001	0.019	-0.073	-0.183
29	-0.029	-0.015	-0.055	0.039	0.032
30	0.033	0.001	-0.052	0.049	0.048
31	-0.029	-0.017	0.033	0.007	-0.015
32	0.034	0.034	-0.017	-0.027	-0.019

33	-0.023	0.033	0.002	0.032	-0.034
34	-0.005	0.006	0.040	-0.044	-0.021
35	0.036	0.039	0.037	0.019	0.008
36	-0.055	-0.035	-0.006	0.006	0.011
37	-0.024	-0.036	-0.009	0.015	0.006
38	0.012	0.011	0.025	0.032	-0.031
39	0.016	0.023	0.018	0.043	-0.007
40	-0.004	-0.008	0.045	-0.019	-0.030
41	0.059	0.002	0.008	-0.012	-0.029
42	0.001	0.010	0.043	0.017	-0.014
43	-0.007	0.001	-0.006	-0.003	-0.020
44	-0.014	-0.018	-0.026	0.011	0.011
45	0.047	0.032	0.034	0.002	-0.016
46	0.029	0.016	0.021	0.004	0.036
47	-0.018	-0.047	-0.028	-0.009	-0.025
48	0.002	0.008	0.016	-0.006	-0.052
49	0.000	-0.002	0.053	-0.011	-0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.010	1.000			
18	0.019	0.272	1.000		
19	-0.204	-0.086	-0.155	1.000	
20	0.033	0.137	0.232	-0.274	1.000
21	0.055	0.217	0.119	-0.037	0.033
22	0.073	0.109	0.262	-0.098	0.136
23	-0.242	-0.049	-0.094	0.278	-0.066
24	0.014	0.132	0.066	-0.222	0.364
25	0.037	0.070	0.049	-0.055	0.066
26	-0.026	-0.252	-0.114	-0.004	-0.042
27	-0.026	-0.079	-0.277	0.067	-0.055
28	0.227	0.030	0.049	-0.234	0.087
29	-0.040	-0.097	-0.165	0.149	-0.368
30	-0.028	-0.034	-0.032	0.028	-0.078
31	0.024	0.002	0.077	-0.069	0.091
32	-0.024	0.003	-0.004	-0.031	-0.045
33	-0.008	-0.020	0.023	0.013	0.003
34	0.036	0.024	0.010	0.002	0.014
35	0.053	0.037	0.029	-0.049	0.021
36	0.028	-0.017	-0.002	0.036	0.047
37	0.002	-0.008	0.002	0.047	0.046



38	-0.016	-0.041	-0.045	-0.022	0.008
39	0.002	-0.029	-0.036	-0.035	0.010
40	0.052	0.012	0.028	0.063	-0.036
41	0.028	-0.013	-0.011	0.025	-0.013
42	-0.023	-0.029	0.015	-0.003	-0.054
43	-0.045	0.018	-0.005	0.033	0.027
44	0.022	-0.008	0.013	-0.008	-0.006
45	0.001	-0.005	-0.020	0.016	-0.027
46	-0.017	0.004	0.020	-0.035	0.033
47	0.036	0.010	0.022	0.003	0.011
48	0.020	0.026	0.051	-0.012	0.030
49	0.053	0.004	0.024	0.058	-0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.253	1.000			
23	-0.101	-0.182	1.000		
24	0.078	0.208	-0.171	1.000	
25	0.148	0.146	-0.209	0.290	1.000
26	-0.296	-0.118	0.032	-0.063	-0.056
27	-0.107	-0.262	0.100	-0.071	-0.041
28	0.058	0.084	-0.287	0.105	0.047
29	-0.060	-0.108	0.115	-0.335	-0.095
30	-0.117	-0.181	0.153	-0.248	-0.343
31	0.000	0.056	-0.033	0.131	0.023
32	-0.013	-0.013	0.019	-0.040	-0.023
33	0.011	0.008	0.004	-0.042	-0.061
34	0.012	0.008	-0.039	0.030	0.040
35	0.032	-0.022	-0.021	0.047	0.040
36	-0.007	0.016	-0.028	0.017	0.016
37	-0.006	0.000	-0.011	0.026	0.005
38	-0.028	0.007	-0.006	0.024	0.003
39	-0.029	-0.024	-0.018	0.023	0.017
40	0.037	0.033	0.032	0.040	0.027
41	-0.028	0.007	0.001	-0.007	0.024
42	0.001	-0.009	0.045	-0.058	-0.034
43	0.033	0.040	0.003	0.047	0.029
44	-0.009	-0.017	-0.019	-0.041	-0.024
45	-0.015	-0.013	0.031	-0.028	0.016
46	0.013	0.046	-0.006	-0.003	0.019
47	-0.029	-0.012	0.006	-0.030	-0.008

48	-0.024	0.022	-0.042	0.021	0.030
49	0.035	0.032	0.029	0.047	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.238	1.000			
28	-0.134	-0.175	1.000		
29	0.088	0.195	-0.207	1.000	
30	0.163	0.124	-0.180	0.288	1.000
31	-0.106	-0.204	0.203	-0.314	-0.357
32	0.017	-0.009	0.002	-0.013	0.004
33	0.017	0.002	-0.023	0.034	0.030
34	-0.008	-0.029	0.021	-0.035	-0.036
35	-0.064	0.016	0.034	-0.056	-0.014
36	-0.018	0.023	0.038	0.020	0.006
37	-0.021	0.010	0.019	0.005	0.005
38	-0.015	-0.031	0.000	-0.005	-0.016
39	-0.019	-0.029	0.010	0.001	-0.004
40	0.001	-0.014	0.009	0.000	-0.035
41	0.021	0.060	-0.005	-0.019	-0.001
42	-0.007	0.028	-0.009	0.011	0.046
43	0.028	0.019	0.028	0.047	0.008
44	-0.032	-0.041	-0.013	-0.022	-0.018
45	0.038	0.044	0.008	0.027	0.039
46	-0.037	-0.040	0.009	-0.004	0.019
47	0.038	-0.005	0.008	-0.001	-0.013
48	-0.032	-0.026	0.071	-0.045	-0.009
49	-0.003	-0.020	0.008	0.005	-0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.001	1.000			
33	0.005	0.025	1.000		
34	0.021	0.024	-0.564	1.000	
35	-0.021	0.034	-0.079	0.119	1.000
36	0.002	-0.851	-0.002	-0.021	-0.036
37	0.006	-0.880	-0.026	-0.034	-0.039
38	-0.002	-0.079	-0.043	0.010	0.010

39	-0.003	-0.067	-0.062	0.014	0.066
40	0.017	-0.111	0.034	-0.007	-0.024
41	0.001	-0.014	-0.013	0.036	0.018
42	0.001	0.066	-0.013	-0.018	0.012
43	-0.023	-0.024	0.009	0.018	0.015
44	-0.002	0.002	-0.018	-0.016	-0.010
45	-0.017	0.031	-0.009	0.008	-0.022
46	0.002	0.010	0.025	-0.051	-0.056
47	0.037	-0.035	0.000	0.028	-0.073
48	0.033	0.042	-0.006	0.022	0.016
49	0.016	-0.132	0.026	-0.006	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.778	1.000			
38	0.088	0.064	1.000		
39	0.073	0.078	0.709	1.000	
40	0.077	0.089	-0.181	-0.343	1.000
41	0.104	0.100	-0.086	-0.056	0.002
42	-0.067	-0.048	-0.014	0.110	-0.097
43	0.025	0.021	0.009	-0.002	-0.003
44	-0.005	0.015	0.002	0.030	-0.023
45	-0.021	-0.045	-0.010	-0.028	-0.002
46	-0.023	-0.004	0.001	0.028	-0.088
47	0.027	0.031	-0.066	-0.089	0.150
48	-0.027	-0.024	-0.043	-0.023	-0.006
49	0.093	0.105	-0.029	-0.185	0.982

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.005	1.000			
43	-0.019	-0.024	1.000		
44	0.018	0.022	-0.692	1.000	
45	-0.012	-0.008	0.280	-0.651	1.000
46	-0.054	0.026	-0.136	0.160	-0.114
47	-0.008	-0.047	0.074	-0.108	0.162
48	0.061	0.005	0.012	-0.033	0.039
49	-0.020	-0.089	-0.004	-0.019	-0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	46	47	48	49
46	1.000			
47	-0.569	1.000		
48	-0.113	0.227	1.000	
49	-0.085	0.138	-0.014	1.000

#### TECHNICAL 8 OUTPUT

#### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.034	40
200	1.014	6
300	1.011	39
400	1.009	42
500	1.013	42
600	1.005	39
700	1.006	42
800	1.004	38
900	1.003	42
1000	1.003	42

This is the interaction between latent profile categories and time pressure on worsening distress

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000

	58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3		0.448	0.208	0.000	55.17%	0.000	0.000	0.000
	58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		2.915	0.096	1.000	9.89%	2.000	3.000	3.000
	1102.000	1.160	-0.512	5.000	8.35%	3.000	4.000	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.173	0.053	0.001	0.065	0.275	*
CHOICE15	0.026	0.041	0.273	-0.052	0.106	
DUTIES15	-0.075	0.045	0.035	-0.165	0.004	
BULLY15	0.108	0.060	0.039	-0.007	0.221	
KES15	0.816	0.092	0.000	0.631	0.991	*

KES15	WITH					
PHY15		0.106	0.014	0.000	0.078	0.134 *
CHOICE15		-0.097	0.018	0.000	-0.133	-0.062 *
BULLY15		0.072	0.014	0.000	0.046	0.100 *
PRESS15		0.070	0.019	0.000	0.032	0.109 *
DUTIES15		-0.073	0.017	0.000	-0.105	-0.039 *
PHY15	WITH					
CHOICE15		-0.098	0.028	0.001	-0.154	-0.042 *
BULLY15		0.040	0.020	0.022	0.001	0.079 *
PRESS15		0.113	0.027	0.000	0.060	0.167 *
DUTIES15		-0.057	0.026	0.016	-0.109	-0.007 *
CHOICE15	WITH					
BULLY15		-0.138	0.027	0.000	-0.191	-0.086 *
PRESS15		-0.183	0.037	0.000	-0.255	-0.109 *
DUTIES15		0.150	0.035	0.000	0.084	0.223 *
BULLY15	WITH					
PRESS15		0.195	0.026	0.000	0.146	0.250 *
DUTIES15		-0.175	0.025	0.000	-0.226	-0.128 *
PRESS15	WITH					
DUTIES15		-0.281	0.034	0.000	-0.348	-0.211 *
Means						
PHY15		0.000	0.025	0.495	-0.049	0.048
KES15		-0.001	0.017	0.485	-0.033	0.032
CHOICE15		0.000	0.032	0.495	-0.061	0.060
BULLY15		0.000	0.023	0.499	-0.044	0.046
DUTIES15		0.000	0.031	0.497	-0.059	0.063
Variances						
PHY15		0.703	0.030	0.000	0.648	0.768 *
KES15		0.314	0.013	0.000	0.289	0.342 *
CHOICE15		1.195	0.052	0.000	1.097	1.300 *
BULLY15		0.602	0.026	0.000	0.556	0.658 *
PRESS15		1.115	0.048	0.000	1.027	1.212 *
DUTIES15		1.035	0.045	0.000	0.952	1.123 *
Between Level						
S1	ON					
CLU2		0.077	0.160	0.305	-0.229	0.399



CLU3	0.101	0.158	0.259	-0.216	0.407	
KESCAT16 ON						
CLU2	-0.070	0.189	0.352	-0.430	0.317	
CLU3	0.126	0.173	0.214	-0.185	0.483	
PRESS15	-0.326	0.329	0.161	-0.945	0.295	
CLU2 WITH						
CLU3	-0.137	0.037	0.000	-0.222	-0.078	*
PRESS15	0.017	0.028	0.278	-0.038	0.071	
CLU3 WITH						
PRESS15	0.012	0.029	0.333	-0.047	0.069	
Means						
CLU2	0.309	0.063	0.000	0.188	0.437	*
CLU3	0.446	0.067	0.000	0.315	0.574	*
PRESS15	2.868	0.058	0.000	2.756	2.981	*
Intercepts						
S1	-0.124	0.136	0.184	-0.396	0.148	
Thresholds						
KESCAT16\$1	-1.375	0.904	0.062	-3.127	0.339	
Variances						
CLU2	0.230	0.045	0.000	0.163	0.333	*
CLU3	0.263	0.050	0.000	0.188	0.376	*
PRESS15	0.093	0.029	0.000	0.053	0.166	*
Residual Variances						
KESCAT16	0.037	0.039	0.000	0.002	0.152	*
S1	0.021	0.031	0.000	0.001	0.116	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	Upper 2.5%	Significance
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Within-Level Standardized Estimates Averaged Over Clusters

S1   KESCAT16 ON						
PRESS15	-0.050	0.047	0.136	-0.146	0.040	
KESCAT16 ON						
PHY15	0.124	0.037	0.000	0.051	0.196	*
CHOICE15	0.025	0.038	0.264	-0.049	0.101	
DUTIES15	-0.068	0.039	0.034	-0.144	0.004	
BULLY15	0.071	0.040	0.033	-0.004	0.151	
KES15	0.394	0.039	0.000	0.316	0.466	*
KES15 WITH						
PHY15	0.226	0.028	0.000	0.169	0.279	*
CHOICE15	-0.158	0.030	0.000	-0.216	-0.100	*
BULLY15	0.167	0.030	0.000	0.108	0.225	*
PRESS15	0.118	0.030	0.000	0.058	0.180	*
DUTIES15	-0.128	0.030	0.000	-0.184	-0.069	*
PHY15 WITH						
CHOICE15	-0.107	0.030	0.000	-0.166	-0.047	*
BULLY15	0.061	0.030	0.021	0.002	0.118	*
PRESS15	0.129	0.030	0.000	0.070	0.185	*
DUTIES15	-0.068	0.030	0.016	-0.127	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.222	-0.104	*
PRESS15	-0.159	0.031	0.000	-0.220	-0.096	*
DUTIES15	0.134	0.031	0.000	0.076	0.197	*
BULLY15 WITH						
PRESS15	0.239	0.029	0.000	0.184	0.297	*
DUTIES15	-0.222	0.029	0.000	-0.279	-0.165	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.316	-0.205	*
Means						
PHY15	-0.001	0.030	0.485	-0.058	0.055	
KES15	-0.001	0.030	0.486	-0.061	0.057	
CHOICE15	0.001	0.030	0.491	-0.060	0.055	
BULLY15	0.000	0.030	0.495	-0.058	0.060	
DUTIES15	0.000	0.030	0.496	-0.059	0.062	
Variances						

PHY15	1.000	0.000	0.000	1.000	1.000
KES15	1.000	0.000	0.000	1.000	1.000
CHOICE15	1.000	0.000	0.000	1.000	1.000
BULLY15	1.000	0.000	0.000	1.000	1.000
PRESS15	1.000	0.000	0.000	1.000	1.000
DUTIES15	1.000	0.000	0.000	1.000	1.000

# Between Level

S1	ON					
CLU2		0.233	0.434	0.305	-0.713	1.002
CLU3		0.312	0.450	0.259	-0.760	1.037
KESCAT16	ON					
CLU2		-0.131	0.352	0.352	-0.904	0.531
CLU3		0.255	0.327	0.214	-0.446	0.873
PRESS15		-0.391	0.336	0.161	-0.897	0.377
CLU2	WITH					
CLU3		-0.562	0.088	0.000	-0.714	-0.362 *
PRESS15		0.112	0.176	0.278	-0.243	0.439
CLU3	WITH					
PRESS15		0.080	0.172	0.333	-0.289	0.406
Means						
CLU2		0.647	0.142	0.000	0.370	0.942 *
CLU3		0.870	0.151	0.000	0.587	1.173 *
PRESS15		9.402	1.428	0.000	7.065	12.595 *
Intercepts						
S1		-0.759	0.785	0.184	-2.269	0.837
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
KESCAT16		0.551	0.241	0.000	0.058	0.932 *
S1		0.779	0.243	0.000	0.122	0.992 *

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.246	0.037	0.000	0.176	0.324

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.449	0.241	0.000	0.068	0.942

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.221	0.243	0.000	0.008	0.878

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU				
KESCAT16				
<div><div></div><div>0</div></div>				
NU				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>
NU				
PRESS15	DUTIES15			
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>			

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 1	<hr/> 2	<hr/> 3	<hr/> 4	

ALPHA	
PRESS15	DUTIES15
<hr/> 0	<hr/> 5

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 6	<hr/> 7	<hr/> 8	<hr/> 9	
KESCAT16	0	6	7	8	9
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA	
PRESS15	DUTIES15
<hr/> 0	<hr/> 10
KESCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 11	<hr/> 13	<hr/> 16	<hr/> 20	
KESCAT16	0	11	13	16	20
PHY15	0	12	15	19	
KES15	0	14	18		
CHOICE15	0	17			
BULLY15	0				

PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	-----	-----
PRESS15	25	
DUTIES15	30	31

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
-----
49

NU	KESCAT16	CLU2	CLU3	PRESS15
	-----	-----	-----	-----
	0	0	0	0

	LAMBDA				
	S1	KESCAT16	CLU2	CLU3	PRESS15
	-----	-----	-----	-----	-----
KESCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
PRESS15	0	0	0	0	0

	THETA			
	KESCAT16	CLU2	CLU3	PRESS15
	-----	-----	-----	-----
KESCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
PRESS15	0	0	0	0

ALPHA					
S1		KESCAT16	CLU2	CLU3	PRESS15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	32	0	33	34	35

BETA					
S1		KESCAT16	CLU2	CLU3	PRESS15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
S1	0	0	36	37	0
KESCAT16	0	0	38	39	40
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
PRESS15	0	0	0	0	0

PSI					
S1		KESCAT16	CLU2	CLU3	PRESS15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
S1	41				
KESCAT16	0	42			
CLU2	0	0	43		
CLU3	0	0	44	45	
PRESS15	0	0	46	47	48

STARTING VALUES FOR WITHIN

TAU	
KESCAT16	
	<hr/>
	0.000

NU					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU		
PRESS15	DUTIES15	
	<hr/>	<hr/>



0.000            0.000

LAMBDA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		

CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU

KESCAT16
-0.352

NU

KESCAT16	CLU2	CLU3	PRESS15
0.000	0.000	0.000	0.000

LAMBDA

	S1	KESCAT16	CLU2	CLU3	PRESS15
KESCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	0.000	1.000

THETA

	KESCAT16	CLU2	CLU3	PRESS15
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
PRESS15	0.000	0.000	0.000	0.000

ALPHA					
	S1	KESCAT16	CLU2	CLU3	PRESS15
	0.000	0.000	0.380	0.495	2.915
BETA					
	S1	KESCAT16	CLU2	CLU3	PRESS15
S1	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
PSI					
	S1	KESCAT16	CLU2	CLU3	PRESS15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.118		
CLU3	0.000	0.000	0.000	0.125	
PRESS15	0.000	0.000	0.000	0.000	0.580

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity

Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

## ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1	2	3	4	5
_____	_____	_____	_____	_____

1	0.637117D-03				
2	0.862431D-04	0.277669D-03			
3	-0.810937D-04	-0.671335D-04	0.102620D-02		
4	0.545426D-04	0.573643D-04	-0.719751D-04	0.527899D-03	
5	-0.931850D-04	-0.625638D-04	0.148837D-03	-0.153903D-03	0.946850D-03
6	0.649867D-04	-0.158137D-05	-0.592016D-04	-0.196226D-04	0.244761D-04
7	0.289778D-04	-0.300338D-04	0.286606D-04	-0.493512D-04	-0.124619D-03
8	0.715488D-05	-0.174227D-04	0.537638D-04	-0.483157D-05	-0.580885D-05
9	0.381141D-04	0.189354D-04	-0.475041D-04	0.216893D-04	-0.357662D-04
10	0.631163D-04	0.302355D-04	-0.751607D-05	0.747404D-05	-0.389919D-06
11	0.215710D-04	0.993808D-05	-0.348500D-04	0.934415D-05	0.151119D-04
12	0.789041D-05	0.211185D-05	-0.149757D-04	-0.375777D-05	-0.107027D-04
13	0.704608D-05	0.245853D-05	-0.838494D-05	0.122404D-04	-0.224415D-04
14	-0.147356D-04	0.245318D-04	-0.277478D-04	0.320531D-04	-0.155603D-04
15	0.186946D-05	0.158016D-04	-0.193301D-05	0.103484D-04	-0.118290D-04
16	-0.104133D-04	-0.286495D-05	0.128778D-04	-0.776375D-05	-0.144134D-04
17	0.401640D-04	0.112339D-04	0.110439D-04	0.511836D-05	-0.136474D-04
18	0.873719D-05	-0.175030D-05	-0.126254D-05	0.134797D-04	0.111615D-04
19	-0.558546D-06	0.489513D-05	0.530090D-05	0.116708D-04	0.762630D-06
20	0.628831D-05	-0.272686D-05	-0.123997D-04	0.117450D-04	0.517290D-05
21	0.352025D-04	-0.115136D-04	-0.146022D-04	-0.769577D-05	0.598670D-05
22	0.665279D-05	-0.479283D-05	0.800608D-05	0.112719D-05	0.991951D-05
23	-0.362170D-04	0.228667D-05	0.359299D-04	-0.737724D-04	0.518246D-04
24	0.146889D-04	-0.198830D-04	-0.638576D-05	-0.461453D-06	-0.948318D-05
25	-0.219300D-05	-0.552625D-05	-0.613705D-04	0.225333D-04	-0.138312D-04
26	-0.141738D-04	0.985946D-05	0.231753D-05	-0.982769D-05	0.287233D-04
27	-0.160084D-04	-0.143872D-05	-0.152523D-04	-0.106753D-04	-0.180596D-04
28	-0.104804D-05	0.603424D-05	0.225418D-04	0.862456D-05	0.114940D-04
29	-0.177919D-04	0.771970D-05	-0.249917D-04	0.578445D-05	-0.816704D-05
30	0.584516D-05	0.129699D-04	0.755962D-05	0.744044D-05	-0.433564D-04
31	0.359410D-04	-0.341721D-04	0.274217D-04	0.234074D-04	0.142438D-04
32	-0.988077D-04	-0.209247D-04	0.131407D-03	0.962702D-04	0.994662D-04
33	0.377869D-04	0.610881D-04	0.260569D-04	-0.593966D-05	0.153553D-04
34	-0.302124D-04	-0.693579D-04	-0.474063D-04	-0.432246D-04	0.966971D-04
35	0.110843D-03	0.446495D-04	-0.620115D-04	0.146063D-03	-0.241160D-03
36	0.707407D-04	-0.963940D-05	-0.635995D-04	-0.260370D-04	-0.902455D-04
37	0.104361D-03	0.316642D-04	-0.103060D-03	-0.115698D-03	-0.492726D-04
38	-0.201129D-03	-0.933241D-04	0.490827D-03	0.982296D-04	0.132773D-03
39	0.356503D-04	-0.810025D-05	0.192935D-03	0.565051D-04	-0.180453D-04
40	0.294200D-03	0.258577D-03	-0.725868D-03	-0.117748D-03	-0.638436D-03
41	-0.133964D-04	0.146902D-04	-0.576118D-04	-0.279972D-04	-0.734381D-05
42	-0.229095D-04	-0.149839D-04	-0.702624D-05	-0.198865D-04	0.267794D-04
43	-0.123608D-04	-0.990653D-06	-0.122788D-04	-0.117005D-04	-0.500706D-04
44	0.173458D-04	0.716617D-05	-0.177571D-04	0.267685D-04	0.162959D-04

45	-0.124450D-04	0.363725D-04	-0.141266D-05	0.117020D-04	-0.163729D-04
46	-0.161547D-04	-0.104650D-04	0.245736D-04	0.299371D-05	0.331469D-05
47	0.991289D-05	-0.349090D-05	0.869856D-05	-0.621805D-05	-0.106638D-04
48	0.151392D-04	0.121428D-04	-0.200797D-04	0.231043D-04	-0.634606D-05
49	0.688272D-03	0.724475D-03	-0.183124D-02	-0.335095D-03	-0.169981D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.283348D-02				
7	-0.314615D-03	0.845891D-02			
8	0.121936D-03	0.484803D-03	0.167113D-02		
9	0.176392D-03	-0.100148D-03	0.239506D-03	0.358419D-02	
10	-0.250961D-04	0.198443D-03	-0.156086D-03	0.415621D-03	0.200872D-02
11	-0.163192D-04	0.228579D-03	0.421353D-04	-0.155487D-04	0.193396D-04
12	0.336260D-04	-0.916907D-05	-0.924873D-05	0.106437D-05	-0.111323D-04
13	0.103065D-04	0.217853D-04	0.236279D-04	0.140002D-04	-0.378153D-05
14	0.285376D-04	-0.204909D-04	-0.553179D-04	0.156007D-04	0.364041D-04
15	-0.164116D-04	-0.140672D-04	-0.239633D-04	-0.234942D-04	0.140046D-04
16	-0.958249D-04	0.172480D-03	0.142028D-03	-0.787722D-04	-0.188215D-04
17	0.206430D-04	0.171045D-04	-0.119043D-04	-0.257862D-04	0.473495D-05
18	0.264981D-04	0.138291D-04	0.114010D-04	0.270988D-04	-0.163454D-04
19	-0.230897D-05	-0.652730D-04	-0.454790D-05	0.221202D-04	0.203908D-04
20	0.652843D-06	0.307805D-04	0.289338D-05	0.195307D-04	0.387486D-05
21	-0.607078D-04	0.786751D-04	0.295964D-05	-0.939183D-04	-0.191602D-04
22	-0.406134D-04	-0.341602D-04	0.765679D-07	-0.128097D-05	-0.419114D-05
23	0.128592D-04	0.138346D-03	0.153780D-06	0.842668D-04	0.649503D-04
24	0.373285D-04	-0.971948D-04	-0.470366D-04	0.180865D-04	-0.230101D-04
25	0.258735D-04	-0.149271D-03	0.643654D-05	-0.332561D-04	0.250143D-04
26	-0.192080D-04	0.519125D-04	0.181932D-04	0.576642D-04	-0.192192D-04
27	0.244921D-04	0.208585D-04	-0.103450D-04	-0.280141D-05	0.149290D-05
28	-0.334154D-06	-0.155076D-03	-0.307079D-04	-0.371681D-04	0.128999D-04
29	0.111355D-04	-0.434858D-04	-0.417724D-05	0.515010D-04	0.135239D-04
30	0.271556D-04	0.147906D-03	0.642560D-04	0.492823D-04	-0.124790D-04
31	-0.576836D-04	-0.137172D-03	0.720870D-04	-0.169291D-04	-0.446340D-04
32	-0.403920D-03	-0.482424D-03	0.103640D-03	-0.823587D-03	0.641994D-03
33	-0.681299D-05	0.131643D-03	-0.403663D-04	0.202871D-03	0.914376D-04
34	-0.630608D-04	-0.393901D-04	0.827378D-05	-0.136217D-03	-0.723809D-04
35	0.925683D-04	0.134258D-03	0.321442D-04	0.534368D-04	-0.877310D-05
36	0.137800D-03	-0.190096D-03	-0.184324D-03	0.691151D-03	-0.302097D-03
37	0.475438D-04	0.418369D-03	0.333873D-04	0.281782D-03	-0.232488D-03
38	0.337242D-04	0.620105D-03	-0.103897D-03	-0.142062D-03	0.464549D-03
39	0.175500D-03	0.380735D-03	0.195015D-03	-0.211771D-03	0.338663D-03

40	-0.489341D-03	0.397651D-03	0.261800D-03	0.228770D-03	-0.266379D-03
41	0.951076D-04	0.215185D-03	0.628791D-06	0.833890D-04	0.105656D-03
42	0.300586D-04	0.292012D-03	0.139446D-03	0.165508D-04	0.678230D-04
43	-0.592898D-04	-0.243231D-03	0.139439D-04	-0.962111D-05	-0.866645D-04
44	0.312224D-04	0.136181D-03	0.209791D-04	-0.797047D-04	0.311640D-04
45	0.138394D-04	-0.107920D-03	-0.430292D-04	0.348417D-04	0.579530D-04
46	-0.900498D-04	0.215659D-04	-0.132341D-04	-0.533048D-04	0.381336D-04
47	0.757871D-04	-0.478257D-04	0.318943D-04	0.271521D-04	-0.804855D-04
48	-0.190497D-05	0.106921D-04	-0.223885D-04	0.477546D-04	0.170853D-04
49	-0.148744D-02	0.610349D-03	0.887828D-03	0.206364D-03	-0.422682D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.909354D-03				
12	0.133929D-03	0.205945D-03			
13	0.342113D-04	0.641599D-04	0.180686D-03		
14	-0.100105D-03	-0.816794D-04	-0.142596D-04	0.779764D-03	
15	-0.200667D-04	-0.352369D-04	-0.503294D-04	0.133312D-03	0.341401D-03
16	-0.191833D-04	-0.583006D-05	0.838271D-05	-0.206877D-03	-0.214054D-03
17	0.477062D-04	0.566110D-04	0.304677D-04	-0.880955D-04	-0.971056D-05
18	0.630186D-05	0.288121D-04	0.552314D-04	-0.295369D-04	-0.384511D-04
19	0.253998D-05	-0.127224D-04	-0.287429D-04	0.572418D-04	0.789972D-04
20	0.434060D-05	0.133454D-04	0.250841D-04	-0.698125D-05	-0.140013D-04
21	0.143536D-03	0.704707D-04	0.373976D-04	-0.170305D-03	-0.482926D-04
22	0.248432D-04	0.427889D-04	0.482535D-04	-0.530388D-04	-0.737214D-04
23	-0.413203D-05	-0.273096D-04	-0.224898D-04	0.156646D-03	0.961905D-04
24	-0.790236D-05	0.278829D-05	0.166628D-04	-0.211063D-04	-0.583915D-05
25	0.412375D-04	0.134780D-04	0.309553D-05	-0.887514D-04	-0.338192D-04
26	-0.631517D-04	-0.601999D-04	-0.302683D-04	0.112887D-03	0.276626D-04
27	-0.761606D-05	-0.184880D-04	-0.409332D-04	0.238364D-04	0.423932D-04
28	-0.254588D-04	0.368108D-06	0.932090D-05	-0.722458D-04	-0.120050D-03
29	-0.221671D-04	-0.268106D-05	-0.191549D-04	0.196472D-04	0.171133D-04
30	0.349992D-04	-0.418998D-06	-0.270344D-04	0.504838D-04	0.304037D-04
31	-0.377194D-04	-0.110781D-04	0.189977D-04	0.848835D-05	-0.115022D-04
32	0.115493D-03	0.417941D-04	-0.144694D-05	-0.743414D-04	0.932188D-05
33	-0.462057D-04	0.291727D-04	0.148229D-05	0.579454D-04	-0.398541D-04
34	-0.112125D-04	0.582488D-05	0.350791D-04	-0.808455D-04	-0.252467D-04
35	0.481742D-04	0.268246D-04	0.433865D-04	0.108490D-04	-0.208118D-04
36	-0.266740D-03	-0.765797D-04	-0.433931D-04	0.300643D-04	0.807497D-07
37	-0.125756D-03	-0.729079D-04	-0.530273D-04	0.438665D-04	-0.432655D-04
38	0.169631D-03	0.352425D-05	0.363609D-04	0.184363D-03	-0.106449D-03
39	0.211695D-04	-0.127661D-04	0.490664D-04	0.171790D-03	-0.729939D-04



40	-0.281848D-03	-0.232901D-04	0.735430D-04	0.171576D-04	0.107436D-03
41	0.416653D-04	0.817952D-05	0.118510D-04	0.224356D-04	-0.102589D-04
42	-0.193274D-04	0.557301D-05	0.114572D-04	0.694418D-05	-0.149794D-04
43	0.507517D-05	0.238154D-05	0.429629D-05	0.816964D-05	-0.189016D-04
44	-0.244493D-04	-0.101807D-04	-0.179087D-04	0.253733D-05	0.747616D-05
45	0.681421D-04	0.211413D-04	0.260344D-04	0.627754D-05	-0.133601D-04
46	0.420714D-04	0.632961D-05	0.109208D-04	0.666716D-05	0.786774D-05
47	-0.265306D-04	-0.149937D-04	-0.124472D-04	-0.191546D-04	-0.152930D-04
48	-0.153474D-04	-0.401952D-05	0.369072D-05	-0.102180D-04	-0.126298D-04
49	-0.734912D-03	-0.433699D-04	0.263280D-03	0.177003D-03	0.295474D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.265630D-02				
17	0.172441D-04	0.380351D-03			
18	0.164117D-04	0.741449D-04	0.183910D-03		
19	-0.304166D-03	-0.446228D-04	-0.532130D-04	0.702436D-03	
20	0.528905D-04	0.612091D-04	0.789056D-04	-0.182013D-03	0.661438D-03
21	0.670152D-04	0.112772D-03	0.421430D-04	-0.323034D-04	0.212355D-04
22	0.621075D-04	0.354027D-04	0.662193D-04	-0.502985D-04	0.698676D-04
23	-0.419700D-03	-0.296804D-04	-0.434686D-04	0.267625D-03	-0.654693D-04
24	0.159006D-04	0.612570D-04	0.288096D-04	-0.132997D-03	0.235499D-03
25	0.914906D-04	0.749589D-04	0.293457D-04	-0.741115D-04	0.727145D-04
26	-0.357245D-04	-0.130205D-03	-0.411785D-04	-0.151326D-04	-0.222420D-04
27	-0.234189D-04	-0.286957D-04	-0.666210D-04	0.327364D-04	-0.277368D-04
28	0.414716D-03	0.249033D-04	0.239189D-04	-0.231692D-03	0.853550D-04
29	-0.578421D-04	-0.476798D-04	-0.588802D-04	0.101859D-03	-0.237685D-03
30	-0.379119D-04	-0.266587D-04	-0.157246D-04	0.258468D-04	-0.720232D-04
31	0.550681D-04	0.468883D-05	0.476004D-04	-0.761527D-04	0.111051D-03
32	-0.297858D-03	0.218422D-05	-0.525949D-05	-0.358915D-04	-0.129952D-03
33	-0.264242D-04	-0.313741D-04	0.184606D-04	0.956014D-05	-0.315130D-05
34	0.124511D-03	0.416977D-04	0.168518D-04	0.363888D-05	0.400580D-04
35	0.107336D-03	0.139429D-04	0.223766D-04	-0.141253D-04	-0.462752D-05
36	0.258389D-03	-0.540298D-04	-0.202764D-04	0.805993D-04	0.163130D-03
37	0.134041D-03	0.847205D-05	0.501258D-05	0.111958D-03	0.186553D-03
38	-0.151517D-03	-0.244557D-04	-0.116513D-03	-0.158774D-03	0.316121D-05
39	0.230966D-03	0.301777D-04	-0.700208D-04	-0.182135D-03	0.102318D-04
40	0.694825D-03	-0.234565D-03	0.156293D-04	0.674165D-04	-0.903696D-04
41	0.190464D-04	-0.222442D-05	0.690686D-05	-0.166618D-05	0.731552D-05
42	-0.121802D-04	-0.298075D-04	0.610310D-05	0.123422D-04	-0.418484D-04
43	-0.871412D-04	0.195612D-04	0.124858D-04	0.208333D-04	0.382797D-04
44	0.350884D-04	-0.206604D-05	0.297789D-05	-0.346160D-05	0.277246D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.749533D-03				
22	0.133070D-03	0.348561D-03			
23	-0.120601D-03	-0.133553D-03	0.136181D-02		
24	0.653578D-04	0.103641D-03	-0.184188D-03	0.661390D-03	
25	0.205563D-03	0.144697D-03	-0.382350D-03	0.380967D-03	0.232473D-02
26	-0.212396D-03	-0.605265D-04	0.436802D-04	-0.356237D-04	-0.774865D-04
27	-0.463834D-04	-0.836043D-04	0.614858D-04	-0.303411D-04	-0.308660D-04
28	0.496495D-04	0.556289D-04	-0.366960D-03	0.930521D-04	0.763944D-04
29	-0.395293D-04	-0.530685D-04	0.102116D-03	-0.210731D-03	-0.120249D-03
30	-0.109743D-03	-0.116201D-03	0.186227D-03	-0.242548D-03	-0.570405D-03
31	-0.994805D-07	0.488185D-04	-0.692246D-04	0.153591D-03	0.644064D-04
32	-0.252244D-04	-0.441931D-04	0.935101D-04	-0.124692D-03	-0.959119D-04
33	0.249069D-04	0.141787D-04	0.532113D-05	-0.705503D-04	-0.172753D-03
34	0.123337D-04	-0.893355D-06	-0.939880D-04	0.388063D-04	0.118395D-03
35	0.929262D-04	-0.942575D-05	-0.106729D-03	0.482074D-04	0.197617D-03
36	-0.684569D-04	0.888719D-04	-0.172291D-03	0.103339D-03	0.125289D-03
37	-0.644630D-04	0.356655D-04	-0.901464D-04	0.114376D-03	-0.201771D-04
38	-0.104293D-03	0.254283D-04	-0.114178D-03	0.159003D-03	-0.379834D-04
39	-0.134993D-03	-0.678909D-04	-0.255326D-03	0.124338D-03	0.145564D-03
40	0.331752D-04	0.955571D-04	0.327246D-03	-0.535123D-04	0.602962D-04
41	-0.103570D-04	0.158606D-04	-0.618049D-06	-0.226188D-04	0.581688D-04
42	0.104265D-04	0.409784D-05	0.597282D-04	-0.696576D-04	-0.450363D-04
43	0.374488D-04	0.402639D-04	0.103975D-04	0.396382D-04	0.605208D-04
44	-0.164700D-04	-0.162796D-04	-0.166724D-04	-0.184495D-04	-0.456599D-04
45	-0.121008D-04	-0.962815D-05	0.493631D-04	-0.409958D-04	0.448106D-04
46	0.200097D-04	0.328704D-04	-0.483358D-04	0.187948D-04	0.403516D-04
47	-0.185861D-04	0.101992D-05	0.107645D-04	-0.234187D-04	-0.265754D-04
48	-0.516083D-04	0.276493D-04	-0.953796D-05	0.118170D-04	-0.748863D-04
49	0.357250D-04	0.245756D-03	0.732495D-03	-0.298923D-04	0.252553D-03

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26  0.688196D-03
27  0.107118D-03  0.293295D-03
28 -0.124318D-03 -0.106234D-03  0.125247D-02
29  0.553926D-04  0.857110D-04 -0.190230D-03  0.629902D-03
30  0.143949D-03  0.762254D-04 -0.208103D-03  0.249903D-03  0.114954D-02
31 -0.124470D-03 -0.155269D-03  0.319466D-03 -0.372144D-03 -0.529336D-03
32  0.443438D-04 -0.154761D-04 -0.181853D-03 -0.227803D-04  0.330287D-04
33  0.282107D-04  0.179023D-05 -0.478962D-04  0.464936D-04  0.766118D-04
34 -0.163602D-04 -0.338970D-04  0.491393D-04 -0.547457D-04 -0.837888D-04
35 -0.781190D-04  0.252481D-04  0.201437D-04 -0.292576D-04 -0.801238D-04
36 -0.479327D-04  0.186098D-04  0.336162D-03  0.954386D-04 -0.270289D-04
37 -0.667248D-04  0.380338D-05  0.279536D-03 -0.158943D-04 -0.744670D-06
38 -0.498776D-04 -0.212871D-04  0.537022D-04 -0.315747D-04 -0.148542D-03
39 -0.830943D-05 -0.596613D-04  0.224716D-03 -0.515481D-04 -0.158900D-03
40 -0.593868D-05 -0.893183D-04 -0.852143D-04 -0.162848D-04 -0.185800D-03
41 -0.206524D-05  0.291210D-04 -0.241021D-04 -0.393147D-05  0.403203D-05
42 -0.262946D-05  0.186141D-04 -0.452760D-04  0.111638D-04  0.336618D-04
43  0.272363D-04 -0.102118D-05  0.613476D-04  0.472973D-04  0.104179D-04
44 -0.264952D-04 -0.207129D-04 -0.303925D-04 -0.228511D-04 -0.152854D-04
45  0.456149D-04  0.353367D-04  0.250194D-04  0.375062D-04  0.511649D-04
46 -0.395410D-04 -0.228102D-04  0.296298D-04 -0.148605D-04  0.386582D-05
47  0.238525D-04  0.763446D-06 -0.903583D-05 -0.127263D-04  0.107629D-04
48 -0.137535D-04 -0.227964D-04  0.579691D-04 -0.492070D-04  0.936366D-05
49 -0.416078D-04 -0.296302D-03 -0.135939D-03  0.460740D-05 -0.605648D-03

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ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.198171D-02				
32	-0.318692D-04	0.185467D-01			
33	0.142220D-04	0.219389D-03	0.394828D-02		
34	0.637209D-04	0.912289D-04	-0.237894D-02	0.448531D-02	
35	-0.683480D-04	0.127315D-03	0.204964D-03	0.148402D-03	0.337191D-02
36	0.118538D-04	-0.180991D-01	0.694414D-04	-0.204030D-03	-0.317903D-03
37	0.805781D-04	-0.182713D-01	-0.300299D-03	-0.205693D-03	-0.309117D-03
38	-0.149580D-04	0.209773D-03	-0.166951D-03	-0.388845D-04	-0.887193D-04
39	0.158880D-04	0.298516D-04	-0.511711D-03	0.192267D-03	0.179082D-03
40	0.355295D-03	-0.415309D-02	0.173072D-05	0.533626D-03	-0.728553D-03
41	0.253552D-04	-0.369950D-03	-0.479966D-04	0.728685D-04	0.919533D-05
42	-0.445624D-04	0.153287D-03	0.232689D-04	-0.101618D-03	-0.200971D-04
43	-0.333506D-04	-0.146459D-03	0.321839D-04	0.410907D-04	0.896286D-04
44	-0.498611D-06	-0.284374D-04	-0.389015D-04	-0.337583D-04	-0.734841D-04
45	-0.425915D-04	0.243612D-03	-0.239524D-04	0.218343D-04	0.874254D-06

46	0.116994D-04	0.305137D-05	0.493971D-04	-0.112386D-03	-0.494368D-04
47	0.477462D-04	-0.108275D-03	-0.857608D-05	0.639676D-04	-0.137015D-03
48	0.458511D-04	-0.488077D-04	-0.296486D-04	-0.150636D-04	-0.128730D-03
49	0.104735D-02	-0.119558D-01	-0.159942D-03	0.163018D-02	-0.245445D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.255449D-01				
37	0.182191D-01	0.247975D-01			
38	0.300983D-03	-0.124044D-03	0.356541D-01		
39	-0.372954D-04	0.274609D-03	0.233510D-01	0.299122D-01	
40	0.227615D-02	0.225672D-02	-0.281439D-01	-0.225020D-01	0.108109D+00
41	-0.933148D-04	0.305796D-03	-0.813910D-03	-0.613569D-03	0.136381D-02
42	-0.431114D-04	-0.175137D-03	-0.384157D-04	0.843829D-03	-0.106492D-02
43	0.187753D-03	0.175439D-03	-0.435020D-04	-0.659776D-04	-0.255659D-04
44	0.987176D-05	0.115873D-03	0.868311D-04	0.268739D-03	-0.255091D-04
45	-0.174879D-03	-0.346483D-03	0.349614D-04	-0.217458D-03	0.185293D-03
46	-0.210003D-04	0.460903D-04	0.522138D-03	0.158937D-03	-0.801331D-03
47	0.831090D-04	0.110669D-03	-0.420964D-03	-0.187417D-04	0.121033D-02
48	0.181278D-03	0.123156D-03	0.128049D-03	0.105504D-03	-0.743007D-04
49	0.644818D-02	0.650749D-02	-0.583543D-01	-0.427282D-01	0.293777D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.963557D-03				
42	-0.132903D-04	0.155342D-02			
43	-0.163076D-04	-0.690696D-04	0.199756D-02		
44	-0.869205D-05	0.491910D-04	-0.111493D-02	0.134759D-02	
45	0.835269D-05	-0.607499D-04	0.597322D-03	-0.119191D-02	0.247347D-02
46	-0.437435D-04	0.158520D-04	0.112299D-03	-0.810147D-05	-0.498092D-04
47	0.301879D-04	-0.384907D-04	-0.817274D-04	0.786433D-04	0.802394D-04
48	-0.226112D-04	0.217391D-04	0.235502D-04	0.674202D-05	-0.775348D-05
49	0.330941D-02	-0.272134D-02	-0.911177D-04	0.115505D-03	0.367562D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.781517D-03			
47	-0.451760D-03	0.830235D-03		

48 0.865669D-04 0.640338D-04 0.834486D-03  
 49 -0.203563D-02 0.340110D-02 -0.914240D-04 0.817247D+00

	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.205	1.000			
3	-0.100	-0.126	1.000		
4	0.094	0.150	-0.098	1.000	
5	-0.120	-0.122	0.151	-0.218	1.000
6	0.048	-0.002	-0.035	-0.016	0.015
7	0.012	-0.020	0.010	-0.023	-0.044
8	0.007	-0.026	0.041	-0.005	-0.005
9	0.025	0.019	-0.025	0.016	-0.019
10	0.056	0.040	-0.005	0.007	0.000
11	0.028	0.020	-0.036	0.013	0.016
12	0.022	0.009	-0.033	-0.011	-0.024
13	0.021	0.011	-0.019	0.040	-0.054
14	-0.021	0.053	-0.031	0.050	-0.018
15	0.004	0.051	-0.003	0.024	-0.021
16	-0.008	-0.003	0.008	-0.007	-0.009
17	0.082	0.035	0.018	0.011	-0.023
18	0.026	-0.008	-0.003	0.043	0.027
19	-0.001	0.011	0.006	0.019	0.001
20	0.010	-0.006	-0.015	0.020	0.007
21	0.051	-0.025	-0.017	-0.012	0.007
22	0.014	-0.015	0.013	0.003	0.017
23	-0.039	0.004	0.030	-0.087	0.046
24	0.023	-0.046	-0.008	-0.001	-0.012
25	-0.002	-0.007	-0.040	0.020	-0.009
26	-0.021	0.023	0.003	-0.016	0.036
27	-0.037	-0.005	-0.028	-0.027	-0.034
28	-0.001	0.010	0.020	0.011	0.011
29	-0.028	0.018	-0.031	0.010	-0.011
30	0.007	0.023	0.007	0.010	-0.042
31	0.032	-0.046	0.019	0.023	0.010
32	-0.029	-0.009	0.030	0.031	0.024
33	0.024	0.058	0.013	-0.004	0.008
34	-0.018	-0.062	-0.022	-0.028	0.047
35	0.076	0.046	-0.033	0.109	-0.135
36	0.018	-0.004	-0.012	-0.007	-0.018
37	0.026	0.012	-0.020	-0.032	-0.010

38	-0.042	-0.030	0.081	0.023	0.023
39	0.008	-0.003	0.035	0.014	-0.003
40	0.035	0.047	-0.069	-0.016	-0.063
41	-0.017	0.028	-0.058	-0.039	-0.008
42	-0.023	-0.023	-0.006	-0.022	0.022
43	-0.011	-0.001	-0.009	-0.011	-0.036
44	0.019	0.012	-0.015	0.032	0.014
45	-0.010	0.044	-0.001	0.010	-0.011
46	-0.023	-0.022	0.027	0.005	0.004
47	0.014	-0.007	0.009	-0.009	-0.012
48	0.021	0.025	-0.022	0.035	-0.007
49	0.030	0.048	-0.063	-0.016	-0.061

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.064	1.000			
8	0.056	0.129	1.000		
9	0.055	-0.018	0.098	1.000	
10	-0.011	0.048	-0.085	0.155	1.000
11	-0.010	0.082	0.034	-0.009	0.014
12	0.044	-0.007	-0.016	0.001	-0.017
13	0.014	0.018	0.043	0.017	-0.006
14	0.019	-0.008	-0.048	0.009	0.029
15	-0.017	-0.008	-0.032	-0.021	0.017
16	-0.035	0.036	0.067	-0.026	-0.008
17	0.020	0.010	-0.015	-0.022	0.005
18	0.037	0.011	0.021	0.033	-0.027
19	-0.002	-0.027	-0.004	0.014	0.017
20	0.000	0.013	0.003	0.013	0.003
21	-0.042	0.031	0.003	-0.057	-0.016
22	-0.041	-0.020	0.000	-0.001	-0.005
23	0.007	0.041	0.000	0.038	0.039
24	0.027	-0.041	-0.045	0.012	-0.020
25	0.010	-0.034	0.003	-0.012	0.012
26	-0.014	0.022	0.017	0.037	-0.016
27	0.027	0.013	-0.015	-0.003	0.002
28	0.000	-0.048	-0.021	-0.018	0.008
29	0.008	-0.019	-0.004	0.034	0.012
30	0.015	0.047	0.046	0.024	-0.008
31	-0.024	-0.034	0.040	-0.006	-0.022
32	-0.056	-0.039	0.019	-0.101	0.105

33	-0.002	0.023	-0.016	0.054	0.032
34	-0.018	-0.006	0.003	-0.034	-0.024
35	0.030	0.025	0.014	0.015	-0.003
36	0.016	-0.013	-0.028	0.072	-0.042
37	0.006	0.029	0.005	0.030	-0.033
38	0.003	0.036	-0.013	-0.013	0.055
39	0.019	0.024	0.028	-0.020	0.044
40	-0.028	0.013	0.019	0.012	-0.018
41	0.058	0.075	0.000	0.045	0.076
42	0.014	0.081	0.087	0.007	0.038
43	-0.025	-0.059	0.008	-0.004	-0.043
44	0.016	0.040	0.014	-0.036	0.019
45	0.005	-0.024	-0.021	0.012	0.026
46	-0.061	0.008	-0.012	-0.032	0.030
47	0.049	-0.018	0.027	0.016	-0.062
48	-0.001	0.004	-0.019	0.028	0.013
49	-0.031	0.007	0.024	0.004	-0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.309	1.000			
13	0.084	0.333	1.000		
14	-0.119	-0.204	-0.038	1.000	
15	-0.036	-0.133	-0.203	0.258	1.000
16	-0.012	-0.008	0.012	-0.144	-0.225
17	0.081	0.202	0.116	-0.162	-0.027
18	0.015	0.148	0.303	-0.078	-0.153
19	0.003	-0.033	-0.081	0.077	0.161
20	0.006	0.036	0.073	-0.010	-0.029
21	0.174	0.179	0.102	-0.223	-0.095
22	0.044	0.160	0.192	-0.102	-0.214
23	-0.004	-0.052	-0.045	0.152	0.141
24	-0.010	0.008	0.048	-0.029	-0.012
25	0.028	0.019	0.005	-0.066	-0.038
26	-0.080	-0.160	-0.086	0.154	0.057
27	-0.015	-0.075	-0.178	0.050	0.134
28	-0.024	0.001	0.020	-0.073	-0.184
29	-0.029	-0.007	-0.057	0.028	0.037
30	0.034	-0.001	-0.059	0.053	0.049
31	-0.028	-0.017	0.032	0.007	-0.014
32	0.028	0.021	-0.001	-0.020	0.004

33	-0.024	0.032	0.002	0.033	-0.034
34	-0.006	0.006	0.039	-0.043	-0.020
35	0.028	0.032	0.056	0.007	-0.019
36	-0.055	-0.033	-0.020	0.007	0.000
37	-0.026	-0.032	-0.025	0.010	-0.015
38	0.030	0.001	0.014	0.035	-0.031
39	0.004	-0.005	0.021	0.036	-0.023
40	-0.028	-0.005	0.017	0.002	0.018
41	0.045	0.018	0.028	0.026	-0.018
42	-0.016	0.010	0.022	0.006	-0.021
43	0.004	0.004	0.007	0.007	-0.023
44	-0.022	-0.019	-0.036	0.002	0.011
45	0.045	0.030	0.039	0.005	-0.015
46	0.050	0.016	0.029	0.009	0.015
47	-0.031	-0.036	-0.032	-0.024	-0.029
48	-0.018	-0.010	0.010	-0.013	-0.024
49	-0.027	-0.003	0.022	0.007	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.017	1.000			
18	0.023	0.280	1.000		
19	-0.223	-0.086	-0.148	1.000	
20	0.040	0.122	0.226	-0.267	1.000
21	0.047	0.211	0.114	-0.045	0.030
22	0.065	0.097	0.262	-0.102	0.146
23	-0.221	-0.041	-0.087	0.274	-0.069
24	0.012	0.122	0.083	-0.195	0.356
25	0.037	0.080	0.045	-0.058	0.059
26	-0.026	-0.254	-0.116	-0.022	-0.033
27	-0.027	-0.086	-0.287	0.072	-0.063
28	0.227	0.036	0.050	-0.247	0.094
29	-0.045	-0.097	-0.173	0.153	-0.368
30	-0.022	-0.040	-0.034	0.029	-0.083
31	0.024	0.005	0.079	-0.065	0.097
32	-0.042	0.001	-0.003	-0.010	-0.037
33	-0.008	-0.026	0.022	0.006	-0.002
34	0.036	0.032	0.019	0.002	0.023
35	0.036	0.012	0.028	-0.009	-0.003
36	0.031	-0.017	-0.009	0.019	0.040
37	0.017	0.003	0.002	0.027	0.046



38	-0.016	-0.007	-0.046	-0.032	0.001
39	0.026	0.009	-0.030	-0.040	0.002
40	0.041	-0.037	0.004	0.008	-0.011
41	0.012	-0.004	0.016	-0.002	0.009
42	-0.006	-0.039	0.011	0.012	-0.041
43	-0.038	0.022	0.021	0.018	0.033
44	0.019	-0.003	0.006	-0.004	0.003
45	0.003	-0.007	-0.013	0.002	-0.035
46	0.007	0.004	0.014	0.003	0.038
47	0.032	0.019	0.007	-0.013	0.018
48	0.016	0.043	0.024	-0.021	0.035
49	0.045	-0.039	-0.001	0.002	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.260	1.000			
23	-0.119	-0.194	1.000		
24	0.093	0.216	-0.194	1.000	
25	0.156	0.161	-0.215	0.307	1.000
26	-0.296	-0.124	0.045	-0.053	-0.061
27	-0.099	-0.261	0.097	-0.069	-0.037
28	0.051	0.084	-0.281	0.102	0.045
29	-0.058	-0.113	0.110	-0.326	-0.099
30	-0.118	-0.184	0.149	-0.278	-0.349
31	0.000	0.059	-0.042	0.134	0.030
32	-0.007	-0.017	0.019	-0.036	-0.015
33	0.014	0.012	0.002	-0.044	-0.057
34	0.007	-0.001	-0.038	0.023	0.037
35	0.058	-0.009	-0.050	0.032	0.071
36	-0.016	0.030	-0.029	0.025	0.016
37	-0.015	0.012	-0.016	0.028	-0.003
38	-0.020	0.007	-0.016	0.033	-0.004
39	-0.029	-0.021	-0.040	0.028	0.017
40	0.004	0.016	0.027	-0.006	0.004
41	-0.012	0.027	-0.001	-0.028	0.039
42	0.010	0.006	0.041	-0.069	-0.024
43	0.031	0.048	0.006	0.034	0.028
44	-0.016	-0.024	-0.012	-0.020	-0.026
45	-0.009	-0.010	0.027	-0.032	0.019
46	0.026	0.063	-0.047	0.026	0.030
47	-0.024	0.002	0.010	-0.032	-0.019

48	-0.065	0.051	-0.009	0.016	-0.054
49	0.001	0.015	0.022	-0.001	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.238	1.000			
28	-0.134	-0.175	1.000		
29	0.084	0.199	-0.214	1.000	
30	0.162	0.131	-0.173	0.294	1.000
31	-0.107	-0.204	0.203	-0.333	-0.351
32	0.012	-0.007	-0.038	-0.007	0.007
33	0.017	0.002	-0.022	0.029	0.036
34	-0.009	-0.030	0.021	-0.033	-0.037
35	-0.051	0.025	0.010	-0.020	-0.041
36	-0.011	0.007	0.059	0.024	-0.005
37	-0.016	0.001	0.050	-0.004	0.000
38	-0.010	-0.007	0.008	-0.007	-0.023
39	-0.002	-0.020	0.037	-0.012	-0.027
40	-0.001	-0.016	-0.007	-0.002	-0.017
41	-0.003	0.055	-0.022	-0.005	0.004
42	-0.003	0.028	-0.032	0.011	0.025
43	0.023	-0.001	0.039	0.042	0.007
44	-0.028	-0.033	-0.023	-0.025	-0.012
45	0.035	0.041	0.014	0.030	0.030
46	-0.054	-0.048	0.030	-0.021	0.004
47	0.032	0.002	-0.009	-0.018	0.011
48	-0.018	-0.046	0.057	-0.068	0.010
49	-0.002	-0.019	-0.004	0.000	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.005	1.000			
33	0.005	0.026	1.000		
34	0.021	0.010	-0.565	1.000	
35	-0.026	0.016	0.056	0.038	1.000
36	0.002	-0.832	0.007	-0.019	-0.034
37	0.011	-0.852	-0.030	-0.020	-0.034
38	-0.002	0.008	-0.014	-0.003	-0.008

39	0.002	0.001	-0.047	0.017	0.018
40	0.024	-0.093	0.000	0.024	-0.038
41	0.018	-0.088	-0.025	0.035	0.005
42	-0.025	0.029	0.009	-0.038	-0.009
43	-0.017	-0.024	0.011	0.014	0.035
44	0.000	-0.006	-0.017	-0.014	-0.034
45	-0.019	0.036	-0.008	0.007	0.000
46	0.009	0.001	0.028	-0.060	-0.030
47	0.037	-0.028	-0.005	0.033	-0.082
48	0.036	-0.012	-0.016	-0.008	-0.077
49	0.026	-0.097	-0.003	0.027	-0.047

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.724	1.000			
38	0.010	-0.004	1.000		
39	-0.001	0.010	0.715	1.000	
40	0.043	0.044	-0.453	-0.396	1.000
41	-0.019	0.063	-0.139	-0.114	0.134
42	-0.007	-0.028	-0.005	0.124	-0.082
43	0.026	0.025	-0.005	-0.009	-0.002
44	0.002	0.020	0.013	0.042	-0.002
45	-0.022	-0.044	0.004	-0.025	0.011
46	-0.005	0.010	0.099	0.033	-0.087
47	0.018	0.024	-0.077	-0.004	0.128
48	0.039	0.027	0.023	0.021	-0.008
49	0.045	0.046	-0.342	-0.273	0.988

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.011	1.000			
43	-0.012	-0.039	1.000		
44	-0.008	0.034	-0.680	1.000	
45	0.005	-0.031	0.269	-0.653	1.000
46	-0.050	0.014	0.090	-0.008	-0.036
47	0.034	-0.034	-0.063	0.074	0.056
48	-0.025	0.019	0.018	0.006	-0.005
49	0.118	-0.076	-0.002	0.003	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	46	47	48	49
46	1.000			
47	-0.561	1.000		
48	0.107	0.077	1.000	
49	-0.081	0.131	-0.004	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	46
200	1.011	6
300	1.009	38
400	1.004	47
500	1.007	42
600	1.002	16
700	1.005	42
800	1.002	49
900	1.003	49
1000	1.002	42

This is the interaction between latent profile categories and role clarity on reducing distress

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	CLU2	CLU3	PHY15	KES15
KESCAT16	1.000				
CLU2	1.000	1.000			
CLU3	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
CLU2	0.310	0.820	0.000	68.97%	0.000	0.000	0.000

	58.000	0.214	-1.328	1.000	31.03%	0.000	1.000	
CLU3		0.448	0.208	0.000	55.17%	0.000	0.000	0.000
	58.000	0.247	-1.957	1.000	44.83%	1.000	1.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		3.672	-0.677	1.000	3.54%	3.000	4.000	4.000
	1103.000	1.031	0.049	5.000	20.22%	4.000	5.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 49

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.167	0.053	0.001	0.061	0.266	*
CHOICE15	0.028	0.041	0.257	-0.050	0.109	
PRESS15	-0.044	0.041	0.133	-0.126	0.034	
BULLY15	0.107	0.060	0.033	-0.006	0.227	
KES15	0.820	0.092	0.000	0.635	1.001	*

KES15	WITH					
PHY15		0.106	0.014	0.000	0.079	0.135 *
CHOICE15		-0.097	0.018	0.000	-0.132	-0.062 *
BULLY15		0.072	0.014	0.000	0.046	0.101 *
PRESS15		0.062	0.019	0.000	0.025	0.100 *
DUTIES15		-0.071	0.017	0.000	-0.105	-0.038 *
PHY15	WITH					
CHOICE15		-0.098	0.028	0.001	-0.154	-0.042 *
BULLY15		0.040	0.020	0.022	0.001	0.079 *
PRESS15		0.119	0.027	0.000	0.066	0.173 *
DUTIES15		-0.055	0.026	0.017	-0.108	-0.004 *
CHOICE15	WITH					
BULLY15		-0.138	0.027	0.000	-0.191	-0.086 *
PRESS15		-0.195	0.037	0.000	-0.264	-0.123 *
DUTIES15		0.155	0.036	0.000	0.088	0.228 *
BULLY15	WITH					
PRESS15		0.201	0.026	0.000	0.149	0.254 *
DUTIES15		-0.168	0.025	0.000	-0.217	-0.122 *
PRESS15	WITH					
DUTIES15		-0.280	0.034	0.000	-0.351	-0.211 *
Means						
PHY15		0.000	0.025	0.497	-0.051	0.048
KES15		-0.001	0.017	0.487	-0.034	0.033
CHOICE15		0.000	0.033	0.498	-0.064	0.063
BULLY15		0.001	0.023	0.484	-0.043	0.047
PRESS15		0.000	0.033	0.499	-0.064	0.065
Variances						
PHY15		0.703	0.030	0.000	0.648	0.767 *
KES15		0.314	0.013	0.000	0.289	0.342 *
CHOICE15		1.195	0.052	0.000	1.097	1.300 *
BULLY15		0.603	0.026	0.000	0.556	0.660 *
PRESS15		1.158	0.049	0.000	1.069	1.255 *
DUTIES15		1.001	0.044	0.000	0.919	1.087 *
Between Level						
S1	ON					
CLU2		-0.153	0.166	0.168	-0.488	0.186



CLU3	-0.128	0.162	0.215	-0.446	0.205	
KESCAT16 ON						
CLU2	-0.143	0.171	0.194	-0.459	0.205	
CLU3	0.054	0.161	0.342	-0.245	0.385	
DUTIES15	-0.312	0.314	0.159	-0.933	0.321	
CLU2 WITH						
CLU3	-0.136	0.037	0.000	-0.219	-0.078	*
DUTIES15	0.008	0.026	0.350	-0.043	0.057	
CLU3 WITH						
DUTIES15	-0.015	0.027	0.269	-0.069	0.035	
Means						
CLU2	0.309	0.063	0.000	0.188	0.436	*
CLU3	0.445	0.067	0.000	0.315	0.573	*
DUTIES15	3.708	0.054	0.000	3.603	3.815	*
Intercepts						
S1	0.039	0.144	0.398	-0.238	0.323	
Thresholds						
KESCAT16\$1	-1.662	1.189	0.093	-4.019	0.813	
Variances						
CLU2	0.230	0.045	0.000	0.164	0.331	*
CLU3	0.263	0.050	0.000	0.189	0.381	*
DUTIES15	0.079	0.024	0.000	0.045	0.140	*
Residual Variances						
KESCAT16	0.034	0.039	0.000	0.001	0.147	*
S1	0.013	0.022	0.000	0.000	0.081	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	95% C.I. Upper 2.5%	Significance
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Within-Level Standardized Estimates Averaged Over Clusters

S1   KESCAT16 ON						
DUTIES15	-0.054	0.046	0.122	-0.146	0.037	
KESCAT16 ON						
PHY15	0.119	0.037	0.000	0.048	0.192	*
CHOICE15	0.026	0.038	0.247	-0.049	0.103	
PRESS15	-0.042	0.038	0.132	-0.119	0.031	
BULLY15	0.072	0.040	0.035	-0.005	0.150	
KES15	0.398	0.039	0.000	0.319	0.470	*
KES15 WITH						
PHY15	0.226	0.028	0.000	0.169	0.279	*
CHOICE15	-0.158	0.030	0.000	-0.216	-0.099	*
BULLY15	0.167	0.030	0.000	0.108	0.225	*
PRESS15	0.103	0.030	0.000	0.043	0.163	*
DUTIES15	-0.127	0.030	0.000	-0.186	-0.067	*
PHY15 WITH						
CHOICE15	-0.107	0.030	0.000	-0.166	-0.047	*
BULLY15	0.061	0.030	0.021	0.002	0.118	*
PRESS15	0.133	0.029	0.000	0.075	0.187	*
DUTIES15	-0.066	0.031	0.018	-0.127	-0.005	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.222	-0.104	*
PRESS15	-0.166	0.030	0.000	-0.225	-0.107	*
DUTIES15	0.141	0.031	0.000	0.082	0.205	*
BULLY15 WITH						
PRESS15	0.240	0.028	0.000	0.184	0.295	*
DUTIES15	-0.217	0.029	0.000	-0.273	-0.160	*
PRESS15 WITH						
DUTIES15	-0.261	0.029	0.000	-0.317	-0.203	*
Means						
PHY15	-0.001	0.030	0.490	-0.060	0.057	
KES15	-0.001	0.030	0.485	-0.061	0.058	
CHOICE15	0.000	0.030	0.497	-0.060	0.057	
BULLY15	0.001	0.030	0.488	-0.059	0.060	
PRESS15	0.000	0.030	0.497	-0.059	0.058	
Variances						

PHY15	1.000	0.000	0.000	1.000	1.000
KES15	1.000	0.000	0.000	1.000	1.000
CHOICE15	1.000	0.000	0.000	1.000	1.000
BULLY15	1.000	0.000	0.000	1.000	1.000
PRESS15	1.000	0.000	0.000	1.000	1.000
DUTIES15	1.000	0.000	0.000	1.000	1.000

#### Between Level

S1	ON					
CLU2		-0.509	0.460	0.168	-1.140	0.617
CLU3		-0.434	0.493	0.215	-1.142	0.743
KESCAT16	ON					
CLU2		-0.267	0.323	0.194	-0.886	0.374
CLU3		0.108	0.327	0.342	-0.523	0.756
DUTIES15		-0.374	0.323	0.159	-0.840	0.363
CLU2	WITH					
CLU3		-0.560	0.088	0.000	-0.712	-0.365 *
DUTIES15		0.061	0.178	0.350	-0.295	0.386
CLU3	WITH					
DUTIES15		-0.107	0.174	0.269	-0.448	0.244
Means						
CLU2		0.648	0.142	0.000	0.372	0.944 *
CLU3		0.869	0.152	0.000	0.582	1.172 *
DUTIES15		13.165	1.952	0.000	9.893	17.579 *
Intercepts						
S1		0.279	0.932	0.398	-2.072	1.568
Variances						
CLU2		1.000	0.000	0.000	1.000	1.000
CLU3		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Residual Variances						
KESCAT16		0.552	0.251	0.000	0.037	0.931 *
S1		0.622	0.285	0.000	0.038	0.982 *

R-SQUARE

Within-Level R-Square Averaged Across Clusters

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.239	0.036	0.000	0.173	0.311

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.448	0.251	0.000	0.069	0.963

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
S1	0.378	0.285	0.000	0.018	0.962

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU				
KESCAT16				
<div><div></div><div>0</div></div>				
NU				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>
NU				
PRESS15	DUTIES15			
<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>			

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 1	<hr/> 2	<hr/> 3	<hr/> 4	

ALPHA	
PRESS15	DUTIES15
<hr/> 5	<hr/> 0

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0	6	7	8	9
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	10
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0				
PHY15	0	11			
KES15	0	12	13		
CHOICE15	0	14	15	16	
BULLY15	0	17	18	19	20

PRESS15	0	21	22	23	24
DUTIES15	0	26	27	28	29

	PSI	
	PRESS15	DUTIES15
	-----	-----
PRESS15	25	
DUTIES15	30	31

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
-----
49

NU	KESCAT16	CLU2	CLU3	DUTIES15
	-----	-----	-----	-----
	0	0	0	0

	LAMBDA				
	S1	KESCAT16	CLU2	CLU3	DUTIES15
	-----	-----	-----	-----	-----
KESCAT16	0	0	0	0	0
CLU2	0	0	0	0	0
CLU3	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA			
	KESCAT16	CLU2	CLU3	DUTIES15
	-----	-----	-----	-----
KESCAT16	0			
CLU2	0	0		
CLU3	0	0	0	
DUTIES15	0	0	0	0





0.000      0.000

LAMBDA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
0.000	0.000

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		

CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.580
DUTIES15	0.000
	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
-0.352

NU	KESCAT16	CLU2	CLU3	DUTIES15
	0.000	0.000	0.000	0.000

LAMBDA					
S1	KESCAT16	CLU2	CLU3	DUTIES15	
KESCAT16	0.000	1.000	0.000	0.000	0.000
CLU2	0.000	0.000	1.000	0.000	0.000
CLU3	0.000	0.000	0.000	1.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	1.000

THETA				
KESCAT16	CLU2	CLU3	DUTIES15	
KESCAT16	0.000			
CLU2	0.000	0.000		
CLU3	0.000	0.000	0.000	
DUTIES15	0.000	0.000	0.000	0.000

ALPHA					
	S1	KESCAT16	CLU2	CLU3	DUTIES15
	0.000	0.000	0.380	0.495	3.672
BETA					
	S1	KESCAT16	CLU2	CLU3	DUTIES15
S1	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000
CLU2	0.000	0.000	0.000	0.000	0.000
CLU3	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PSI					
	S1	KESCAT16	CLU2	CLU3	DUTIES15
S1	1.000				
KESCAT16	0.000	1.000			
CLU2	0.000	0.000	0.118		
CLU3	0.000	0.000	0.000	0.125	
DUTIES15	0.000	0.000	0.000	0.000	0.516

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~IW(1.000,7)	infinity	infinity	infinity
Parameter 12~IW(0.000,7)	infinity	infinity	infinity
Parameter 13~IW(1.000,7)	infinity	infinity	infinity

Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(0.000,7)	infinity	infinity	infinity
Parameter 16~IW(1.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(0.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(1.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(0.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(1.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(0.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(1.000,7)	infinity	infinity	infinity
Parameter 32~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 33~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 42~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 43~IW(1.000,4)	infinity	infinity	infinity
Parameter 44~IW(0.000,4)	infinity	infinity	infinity
Parameter 45~IW(1.000,4)	infinity	infinity	infinity
Parameter 46~IW(0.000,4)	infinity	infinity	infinity
Parameter 47~IW(0.000,4)	infinity	infinity	infinity
Parameter 48~IW(1.000,4)	infinity	infinity	infinity
Parameter 49~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

## ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

1	2	3	4	5
_____	_____	_____	_____	_____

1	0.640097D-03				
2	0.904038D-04	0.282562D-03			
3	-0.923554D-04	-0.798694D-04	0.105651D-02		
4	0.612292D-04	0.650579D-04	-0.955867D-04	0.539193D-03	
5	0.773951D-04	0.579433D-04	-0.144191D-03	0.192843D-03	0.106132D-02
6	0.574411D-04	-0.408421D-05	-0.529634D-04	-0.346159D-04	0.872883D-05
7	0.320657D-04	-0.235474D-04	0.659962D-04	-0.239912D-04	-0.114803D-03
8	0.172661D-04	-0.106330D-04	0.453149D-04	0.749165D-05	-0.913604D-05
9	0.252000D-04	0.472222D-05	-0.174803D-04	0.187590D-04	-0.156290D-04
10	0.626479D-04	0.219286D-04	-0.255912D-05	0.330360D-04	0.518784D-04
11	0.200664D-04	0.855266D-05	-0.325076D-04	0.489144D-05	0.277542D-04
12	0.830936D-05	0.329814D-05	-0.170011D-04	-0.198943D-05	-0.916513D-05
13	0.273596D-05	-0.169556D-05	0.538928D-06	0.257415D-05	-0.207918D-04
14	-0.226381D-04	0.183189D-04	-0.111804D-04	0.133949D-04	-0.938133D-05
15	0.332503D-05	0.168793D-04	-0.418993D-05	0.131116D-04	-0.307225D-05
16	-0.113699D-04	-0.405559D-05	0.182952D-04	-0.844736D-05	0.385027D-05
17	0.419196D-04	0.120348D-04	0.681321D-05	0.894921D-05	-0.266252D-05
18	0.629774D-05	-0.407809D-05	0.410047D-05	0.853608D-05	0.173265D-04
19	-0.387359D-05	0.288919D-05	0.931221D-05	0.644050D-05	0.218225D-06
20	0.540866D-05	-0.523793D-05	-0.430932D-05	0.449968D-05	0.111420D-04
21	0.373601D-04	-0.893296D-05	-0.213015D-04	-0.662075D-05	0.766128D-05
22	0.348049D-05	-0.483777D-05	0.119452D-04	-0.124667D-05	0.557742D-05
23	-0.329119D-04	0.415849D-07	0.421703D-04	-0.737797D-04	0.140339D-04
24	0.138771D-04	-0.221546D-04	-0.936220D-05	-0.511618D-05	-0.828322D-05
25	-0.165735D-04	-0.157972D-04	-0.457068D-04	-0.319621D-05	0.491659D-05
26	-0.106392D-04	0.114522D-04	0.308247D-05	-0.189769D-06	0.279735D-04
27	-0.147353D-04	-0.452359D-05	-0.102773D-04	-0.167699D-04	-0.274948D-04
28	-0.624032D-05	0.656763D-05	0.188536D-04	0.229284D-05	-0.125752D-05
29	-0.133594D-04	0.119293D-04	-0.290195D-04	0.156145D-04	0.188193D-05
30	0.374713D-05	0.115820D-04	0.134190D-04	0.128864D-04	-0.405801D-04
31	0.443119D-04	-0.217385D-04	-0.307728D-06	0.452211D-04	0.260748D-04
32	-0.917635D-04	-0.268480D-04	0.112277D-03	0.610706D-04	0.165386D-03
33	0.393690D-04	0.627118D-04	0.189026D-04	0.634895D-05	0.196167D-04
34	-0.246958D-04	-0.645640D-04	-0.610063D-04	-0.303873D-04	0.885434D-04
35	-0.388582D-04	-0.696115D-04	0.216437D-03	-0.163014D-03	-0.282817D-03
36	0.395576D-04	-0.211997D-07	-0.278143D-04	0.179932D-04	-0.213888D-03
37	0.870123D-04	0.359501D-04	-0.803477D-04	-0.641802D-04	-0.120824D-03
38	-0.161376D-03	-0.342021D-04	0.298946D-03	0.104166D-03	0.395421D-05
39	0.455850D-04	0.309734D-04	0.678152D-04	0.668303D-04	-0.778038D-04
40	0.570675D-04	0.201041D-03	-0.215199D-03	-0.174376D-03	-0.796263D-03
41	-0.171906D-04	0.169295D-04	-0.251262D-04	-0.192983D-04	-0.518424D-05
42	-0.339667D-05	-0.437819D-05	-0.127050D-04	-0.175293D-05	0.119415D-04
43	-0.178443D-04	-0.495113D-05	-0.113200D-04	-0.166844D-04	-0.665201D-04
44	0.178103D-04	0.908144D-05	-0.221753D-04	0.243081D-04	0.432880D-04

45	-0.463392D-05	0.392095D-04	0.976448D-05	0.149152D-04	-0.153788D-04
46	-0.125271D-04	-0.660259D-05	0.142289D-04	0.125869D-04	0.254383D-05
47	0.759330D-05	-0.109938D-04	0.158460D-04	-0.132985D-04	-0.595655D-05
48	0.119092D-05	0.106024D-04	-0.226028D-04	0.119006D-04	0.742823D-05
49	0.105218D-03	0.787260D-03	-0.713090D-03	-0.548142D-03	-0.290545D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.280000D-02				
7	-0.324621D-03	0.837797D-02			
8	0.128398D-03	0.443557D-03	0.166776D-02		
9	0.164870D-03	-0.156973D-03	0.221311D-03	0.353830D-02	
10	-0.234506D-03	-0.170147D-03	0.145252D-03	-0.241773D-03	0.167571D-02
11	-0.356599D-04	0.215584D-03	0.435811D-04	-0.349450D-04	0.309698D-04
12	0.313181D-04	-0.192252D-04	-0.101214D-04	0.421841D-05	-0.260418D-04
13	0.787593D-05	0.158108D-04	0.258430D-04	0.948402D-05	-0.992067D-05
14	0.345604D-04	-0.539886D-04	-0.471151D-04	-0.113438D-05	-0.355749D-04
15	-0.151634D-04	-0.189457D-04	-0.190115D-04	-0.419696D-04	0.230862D-04
16	-0.100150D-03	0.164404D-03	0.137178D-03	-0.715827D-04	0.609532D-04
17	0.988552D-05	0.191529D-04	-0.802814D-05	-0.383434D-04	0.177236D-04
18	0.235239D-04	0.144169D-04	0.101652D-04	0.360707D-04	-0.999233D-05
19	0.119535D-04	-0.511845D-04	-0.461677D-05	0.366545D-04	-0.256801D-04
20	-0.576401D-05	0.162215D-04	0.321167D-05	0.184720D-04	0.592091D-05
21	-0.649496D-04	0.403810D-04	-0.150985D-05	-0.117050D-03	-0.245136D-07
22	-0.385577D-04	-0.356691D-04	-0.639670D-05	-0.111219D-04	0.723985D-05
23	0.113839D-04	0.168731D-03	0.318727D-04	0.849893D-04	0.188265D-04
24	0.298793D-04	-0.115601D-03	-0.467069D-04	0.733213D-05	0.618545D-05
25	0.154869D-04	-0.228390D-03	-0.357612D-05	-0.502442D-04	0.598823D-04
26	-0.219841D-04	0.632694D-04	0.343794D-04	0.360733D-04	-0.540784D-04
27	0.210431D-04	0.125185D-04	-0.640254D-05	-0.681578D-07	-0.908303D-05
28	0.820554D-05	-0.152112D-03	-0.526228D-04	-0.412096D-04	0.457326D-04
29	0.757602D-05	-0.366658D-04	0.124246D-05	0.291041D-04	-0.426745D-04
30	0.476624D-04	0.166414D-03	0.774287D-04	0.361448D-04	-0.431308D-04
31	-0.671687D-04	-0.986309D-04	0.562457D-04	0.363185D-04	0.499644D-04
32	-0.607092D-04	0.361493D-03	-0.296464D-03	0.722267D-04	0.781969D-03
33	0.952677D-05	0.160077D-03	-0.435871D-04	0.217318D-03	0.737955D-05
34	-0.677079D-04	-0.427098D-04	-0.999149D-05	-0.141617D-03	-0.399292D-04
35	0.564406D-04	0.648211D-04	0.191707D-04	0.775727D-04	-0.973815D-04
36	-0.860606D-04	-0.226186D-03	-0.757435D-04	0.390526D-03	-0.474557D-03
37	0.104505D-04	-0.215673D-03	0.951135D-04	0.204975D-03	-0.373923D-03
38	0.607713D-04	0.875566D-03	0.139159D-03	0.253584D-04	-0.527913D-03
39	0.224754D-03	0.481433D-03	0.359529D-03	-0.280388D-04	-0.484392D-03

40	0.657648D-03	-0.117623D-03	0.181692D-03	0.174745D-03	-0.484553D-03
41	0.409219D-04	0.154812D-03	0.377106D-04	0.189042D-04	0.127663D-04
42	0.600928D-04	0.269864D-03	0.136033D-03	0.570629D-04	0.563459D-05
43	-0.625859D-04	-0.251100D-03	0.401259D-05	0.561962D-05	-0.522917D-04
44	0.361355D-04	0.130011D-03	0.198165D-04	-0.551566D-04	0.111091D-04
45	-0.152417D-04	-0.795780D-04	-0.594934D-04	0.156662D-04	0.576783D-04
46	-0.929918D-04	0.128186D-04	-0.966364D-05	-0.859433D-04	0.397685D-04
47	0.935406D-04	-0.679541D-04	0.278953D-04	0.327101D-04	-0.197061D-04
48	0.286244D-04	0.467868D-04	0.280394D-05	0.699020D-04	-0.365932D-04
49	0.245208D-02	-0.953740D-03	0.956428D-03	0.303234D-03	-0.228389D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.908250D-03				
12	0.133295D-03	0.205306D-03			
13	0.337565D-04	0.637187D-04	0.180366D-03		
14	-0.996045D-04	-0.809708D-04	-0.139007D-04	0.779944D-03	
15	-0.198036D-04	-0.346666D-04	-0.498578D-04	0.133177D-03	0.341550D-03
16	-0.196164D-04	-0.675018D-05	0.772018D-05	-0.205101D-03	-0.214270D-03
17	0.472485D-04	0.564849D-04	0.301117D-04	-0.878448D-04	-0.956385D-05
18	0.630135D-05	0.285616D-04	0.551572D-04	-0.297510D-04	-0.385158D-04
19	0.253376D-05	-0.125378D-04	-0.286905D-04	0.563788D-04	0.792833D-04
20	0.393888D-05	0.137426D-04	0.245951D-04	-0.615677D-05	-0.145244D-04
21	0.145564D-03	0.630982D-04	0.338265D-04	-0.177692D-03	-0.510307D-04
22	0.233304D-04	0.418039D-04	0.416238D-04	-0.537084D-04	-0.750372D-04
23	-0.211554D-05	-0.238754D-04	-0.193791D-04	0.154378D-03	0.857192D-04
24	-0.852849D-05	0.985970D-06	0.139718D-04	-0.156056D-04	-0.809218D-05
25	0.403917D-04	0.905960D-05	0.405408D-06	-0.821034D-04	-0.336088D-04
26	-0.551652D-04	-0.553882D-04	-0.269551D-04	0.113757D-03	0.291691D-04
27	-0.465444D-05	-0.155964D-04	-0.385265D-04	0.220144D-04	0.419708D-04
28	-0.265676D-04	-0.386304D-05	0.843084D-05	-0.614528D-04	-0.117296D-03
29	-0.197744D-04	-0.877823D-06	-0.184151D-04	0.163551D-04	0.190329D-04
30	0.360195D-04	0.411701D-05	-0.219165D-04	0.440378D-04	0.340468D-04
31	-0.436708D-04	-0.155357D-04	0.163254D-04	0.116375D-04	-0.136121D-04
32	0.603825D-04	0.343321D-04	0.987725D-05	-0.747408D-04	-0.363298D-04
33	-0.447055D-04	0.290014D-04	0.121394D-05	0.580332D-04	-0.396294D-04
34	-0.106495D-04	0.485591D-05	0.345257D-04	-0.774672D-04	-0.254384D-04
35	0.392698D-04	0.151290D-04	0.315462D-04	0.406345D-04	-0.155699D-04
36	-0.213572D-03	-0.651292D-04	-0.472011D-04	0.377862D-04	0.274839D-04
37	-0.797461D-04	-0.439200D-04	-0.480640D-04	0.349045D-04	0.140117D-04
38	0.142004D-03	0.184965D-04	0.555056D-04	0.204263D-03	-0.702291D-04
39	0.114450D-04	-0.764850D-05	0.662035D-04	0.215716D-03	-0.603013D-04



40	-0.208142D-04	0.335131D-04	0.115906D-03	-0.670419D-05	0.558898D-04
41	0.186788D-04	-0.801105D-05	-0.284999D-05	0.115467D-04	-0.423263D-05
42	-0.340131D-04	0.148105D-05	0.103801D-04	0.508339D-05	-0.208039D-04
43	0.696538D-05	0.254062D-05	0.166353D-05	0.602874D-05	-0.181747D-04
44	-0.279762D-04	-0.101653D-04	-0.201380D-04	0.232341D-05	0.835929D-05
45	0.634431D-04	0.187751D-04	0.312029D-04	0.213123D-04	-0.179802D-04
46	0.356578D-04	0.818391D-05	0.932700D-05	0.324131D-05	0.753214D-05
47	-0.265652D-04	-0.133758D-04	-0.919171D-05	-0.185957D-04	-0.123722D-04
48	-0.206467D-05	-0.225107D-05	0.416361D-05	0.255550D-05	-0.109874D-04
49	-0.108401D-04	0.146682D-03	0.490395D-03	0.120746D-03	0.204783D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.265914D-02				
17	0.172200D-04	0.380408D-03			
18	0.176083D-04	0.742993D-04	0.184350D-03		
19	-0.304120D-03	-0.442096D-04	-0.538786D-04	0.701824D-03	
20	0.543925D-04	0.611616D-04	0.793343D-04	-0.182087D-03	0.660587D-03
21	0.777581D-04	0.118466D-03	0.453730D-04	-0.318180D-04	0.192564D-04
22	0.703210D-04	0.388159D-04	0.666658D-04	-0.489055D-04	0.652041D-04
23	-0.455265D-03	-0.343927D-04	-0.453152D-04	0.273271D-03	-0.604036D-04
24	0.256205D-04	0.624427D-04	0.270736D-04	-0.139405D-03	0.239595D-03
25	0.970858D-04	0.743381D-04	0.316369D-04	-0.773625D-04	0.822831D-04
26	-0.466527D-04	-0.127995D-03	-0.423048D-04	-0.163120D-04	-0.192909D-04
27	-0.296255D-04	-0.301031D-04	-0.642732D-04	0.295311D-04	-0.231257D-04
28	0.440718D-03	0.300705D-04	0.248363D-04	-0.222373D-03	0.758140D-04
29	-0.713353D-04	-0.465559D-04	-0.591396D-04	0.103473D-03	-0.228311D-03
30	-0.656654D-04	-0.294345D-04	-0.186777D-04	0.333832D-04	-0.735492D-04
31	0.795786D-04	0.101229D-04	0.474451D-04	-0.796203D-04	0.993376D-04
32	-0.243574D-03	0.959988D-05	-0.124919D-04	-0.457325D-04	-0.186752D-03
33	-0.262692D-04	-0.311548D-04	0.190436D-04	0.105191D-04	-0.141900D-05
34	0.126348D-03	0.402016D-04	0.155512D-04	0.431502D-05	0.394625D-04
35	0.286076D-04	-0.848728D-05	0.116356D-04	-0.118889D-04	-0.107275D-04
36	0.370834D-03	-0.654828D-04	-0.176714D-04	0.101301D-03	0.191293D-03
37	0.126946D-03	-0.321571D-04	0.144965D-04	0.883960D-04	0.224299D-03
38	-0.588644D-04	-0.706558D-04	-0.110200D-03	-0.105723D-03	-0.116747D-04
39	0.293184D-03	-0.431464D-04	-0.572965D-04	-0.110086D-03	-0.751354D-05
40	0.717764D-03	-0.200625D-03	-0.667237D-04	0.184093D-03	-0.138845D-03
41	-0.759624D-05	0.134360D-04	-0.967020D-05	0.138161D-04	-0.582519D-05
42	0.441180D-04	-0.268225D-04	0.561474D-05	0.820587D-05	-0.403997D-04
43	-0.877980D-04	0.206571D-04	0.979481D-05	0.249852D-04	0.412393D-04
44	0.232339D-04	-0.375547D-05	-0.104032D-05	0.955326D-06	-0.271456D-05

45	0.138083D-04	-0.110246D-04	-0.518260D-05	-0.270805D-05	-0.544051D-04
46	0.324173D-05	0.580656D-05	0.672343D-05	0.282278D-05	0.289864D-04
47	0.489510D-04	0.641691D-05	0.216816D-05	-0.485456D-05	0.618957D-05
48	0.707873D-05	0.107971D-04	-0.610647D-06	0.194895D-05	0.184598D-04
49	0.282763D-02	-0.812126D-03	-0.309171D-03	0.585207D-03	-0.637891D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.752517D-03				
22	0.129200D-03	0.349597D-03			
23	-0.100469D-03	-0.124913D-03	0.133211D-02		
24	0.561965D-04	0.101677D-03	-0.165925D-03	0.659749D-03	
25	0.197645D-03	0.134410D-03	-0.372926D-03	0.377436D-03	0.241087D-02
26	-0.209830D-03	-0.572312D-04	0.235716D-04	-0.347396D-04	-0.771810D-04
27	-0.473255D-04	-0.818789D-04	0.607690D-04	-0.321992D-04	-0.387466D-04
28	0.561047D-04	0.558183D-04	-0.352315D-03	0.951200D-04	0.861050D-04
29	-0.369828D-04	-0.473041D-04	0.953787D-04	-0.206766D-03	-0.115580D-03
30	-0.108591D-03	-0.116530D-03	0.190915D-03	-0.227252D-03	-0.557693D-03
31	0.293389D-05	0.473534D-04	-0.502776D-04	0.150994D-03	0.438385D-04
32	-0.388206D-04	-0.484743D-05	0.872955D-04	-0.172530D-03	-0.216215D-03
33	0.224211D-04	0.105833D-04	0.144208D-04	-0.738932D-04	-0.183765D-03
34	0.180122D-04	0.754903D-05	-0.949775D-04	0.484522D-04	0.123305D-03
35	0.510353D-04	-0.114123D-04	-0.282479D-04	-0.239629D-04	0.923185D-04
36	-0.201080D-04	0.322870D-04	-0.197067D-03	0.137932D-03	0.236939D-03
37	-0.755326D-05	-0.855590D-05	-0.894376D-04	0.142892D-03	0.159289D-03
38	-0.771807D-04	0.562861D-04	0.142130D-04	0.622260D-04	-0.573927D-04
39	-0.125687D-03	-0.417477D-04	-0.149745D-03	0.713728D-04	0.785030D-04
40	-0.161024D-03	0.163784D-03	0.251400D-04	0.469616D-04	0.218702D-03
41	-0.144044D-04	-0.368687D-05	0.170636D-05	-0.156206D-04	0.157150D-04
42	0.832674D-05	-0.206077D-05	0.417412D-04	-0.652494D-04	-0.502528D-04
43	0.426610D-04	0.422017D-04	0.940769D-05	0.512263D-04	0.743423D-04
44	-0.104345D-04	-0.182890D-04	-0.169287D-04	-0.223015D-04	-0.413390D-04
45	-0.140774D-04	-0.124571D-04	0.219672D-04	-0.441520D-04	0.336403D-04
46	0.823131D-05	0.279688D-04	-0.187703D-04	0.699471D-05	0.198134D-04
47	-0.866452D-05	-0.458475D-05	0.153890D-04	-0.266551D-05	-0.138453D-04
48	-0.171238D-04	0.653044D-05	-0.317273D-04	0.191083D-04	0.185036D-04
49	-0.627163D-03	0.610201D-03	-0.328071D-04	0.261274D-03	0.894053D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30

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26  0.677177D-03
27  0.107562D-03  0.292334D-03
28 -0.124396D-03 -0.110937D-03  0.126422D-02
29  0.571489D-04  0.835023D-04 -0.197820D-03  0.621387D-03
30  0.152336D-03  0.675593D-04 -0.230843D-03  0.258951D-03  0.116757D-02
31 -0.125714D-03 -0.150714D-03  0.320593D-03 -0.362509D-03 -0.538315D-03
32  0.563568D-04 -0.438215D-04 -0.126780D-03  0.419899D-05  0.637772D-04
33  0.296201D-04  0.495675D-05 -0.563292D-04  0.514231D-04  0.664409D-04
34 -0.257796D-04 -0.438262D-04  0.521102D-04 -0.660567D-04 -0.799391D-04
35 -0.237102D-04  0.496697D-04 -0.514117D-04  0.327155D-04  0.783881D-04
36 -0.709141D-04  0.756195D-04  0.295119D-03  0.800543D-04 -0.461892D-04
37 -0.104421D-03  0.306392D-04  0.218275D-03 -0.419972D-04 -0.532561D-04
38 -0.115327D-04 -0.225461D-05  0.338546D-04 -0.206826D-04 -0.193549D-03
39  0.489616D-04 -0.455877D-04  0.201738D-03 -0.421513D-04 -0.217990D-03
40 -0.114229D-03 -0.103358D-03  0.456734D-03 -0.168185D-03 -0.328091D-03
41  0.142527D-04  0.275183D-04 -0.175339D-04  0.663422D-05  0.932586D-05
42 -0.106540D-04  0.146389D-04  0.131442D-05  0.642682D-05  0.288031D-04
43  0.304841D-04 -0.167587D-05  0.635298D-04  0.435650D-04  0.738488D-05
44 -0.278543D-04 -0.145437D-04 -0.366540D-04 -0.170388D-04 -0.225674D-04
45  0.446775D-04  0.322589D-04  0.467568D-04  0.354091D-04  0.604374D-04
46 -0.232446D-04 -0.159351D-04 -0.115741D-05 -0.246544D-05  0.815282D-05
47  0.173009D-04  0.537361D-05 -0.111424D-05 -0.214291D-04 -0.288771D-04
48 -0.958925D-05 -0.654734D-05  0.475160D-04 -0.244253D-04  0.956355D-05
49 -0.425123D-03 -0.409939D-03  0.180855D-02 -0.574094D-03 -0.135420D-02

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ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.192104D-02				
32	-0.167084D-03	0.207834D-01			
33	0.130864D-04	0.196225D-03	0.394984D-02		
34	0.755902D-04	0.222707D-03	-0.238082D-02	0.449135D-02	
35	-0.133687D-03	0.195262D-03	0.126387D-03	-0.316343D-03	0.293652D-02
36	0.785337D-04	-0.201632D-01	0.865477D-04	-0.322892D-03	-0.272478D-03
37	0.224570D-03	-0.205329D-01	-0.319901D-03	-0.202914D-03	-0.229208D-03
38	0.278842D-05	0.102584D-02	-0.630196D-04	0.149014D-03	-0.772150D-03
39	0.477869D-04	0.448047D-03	-0.306258D-03	0.239562D-03	-0.464888D-03
40	0.447439D-03	-0.583245D-02	0.485471D-04	0.114301D-03	0.211257D-04
41	-0.257663D-05	-0.137374D-03	0.175812D-04	0.169370D-04	-0.320080D-05
42	-0.175271D-04	-0.601317D-04	0.120828D-04	-0.937397D-04	-0.259655D-04
43	-0.241492D-04	-0.230146D-04	0.342808D-04	0.397117D-04	0.832946D-04
44	-0.121254D-04	-0.120308D-03	-0.478601D-04	-0.989687D-05	-0.652056D-04
45	-0.497498D-04	0.440067D-03	-0.194574D-04	0.464475D-05	0.168032D-04

46	-0.110042D-04	-0.578146D-04	0.403939D-04	-0.103609D-03	-0.463380D-04
47	0.514399D-04	-0.111965D-03	-0.319366D-05	0.755273D-04	-0.122813D-03
48	0.128191D-04	0.432415D-04	-0.324430D-04	-0.193173D-04	0.357646D-04
49	0.169771D-02	-0.208749D-01	0.101243D-03	0.629482D-03	-0.696968D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.274445D-01				
37	0.205386D-01	0.261131D-01			
38	-0.245710D-02	-0.128206D-02	0.291200D-01		
39	-0.121720D-02	-0.101954D-02	0.185608D-01	0.257905D-01	
40	0.354117D-02	0.554671D-02	0.577675D-02	0.807266D-02	0.985974D-01
41	-0.337490D-04	-0.930979D-04	-0.265046D-03	-0.173282D-03	0.376108D-03
42	0.173018D-04	0.125967D-03	0.409268D-04	0.669974D-03	0.697121D-03
43	-0.144987D-04	0.467958D-04	-0.238165D-04	-0.289934D-04	0.227287D-03
44	0.149779D-03	0.241796D-03	0.104927D-04	0.199043D-03	-0.998328D-04
45	-0.396100D-03	-0.636160D-03	0.704854D-04	-0.207193D-03	0.219620D-03
46	0.114417D-04	0.697350D-04	0.260254D-03	0.320700D-04	-0.429882D-03
47	0.284797D-04	0.162601D-03	0.107482D-03	0.322298D-03	0.117279D-02
48	0.699761D-04	0.323629D-04	-0.114490D-03	-0.125026D-03	-0.918222D-04
49	0.117046D-01	0.193715D-01	0.402316D-01	0.489857D-01	0.370752D+00

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.484186D-03				
42	0.241051D-04	0.150081D-02			
43	-0.274041D-04	-0.545790D-04	0.200125D-02		
44	0.185673D-04	0.372381D-04	-0.111283D-02	0.135083D-02	
45	0.201624D-04	-0.504902D-04	0.588770D-03	-0.120223D-02	0.248366D-02
46	-0.120038D-04	0.194956D-05	0.408511D-04	-0.101900D-03	0.771274D-04
47	-0.163130D-04	-0.935169D-05	-0.286994D-04	0.109304D-03	-0.162219D-03
48	0.286610D-04	-0.126052D-04	0.222506D-04	-0.298304D-04	0.307812D-04
49	0.108729D-02	0.283032D-02	0.823902D-03	-0.241144D-03	0.647552D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49
46	0.666945D-03			
47	-0.387901D-03	0.723867D-03		

48 0.660616D-04 -0.952928D-04 0.597876D-03  
 49 -0.144994D-02 0.458402D-02 -0.458562D-03 0.141307D+01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.213	1.000			
3	-0.112	-0.146	1.000		
4	0.104	0.167	-0.127	1.000	
5	0.094	0.106	-0.136	0.255	1.000
6	0.043	-0.005	-0.031	-0.028	0.005
7	0.014	-0.015	0.022	-0.011	-0.039
8	0.017	-0.015	0.034	0.008	-0.007
9	0.017	0.005	-0.009	0.014	-0.008
10	0.060	0.032	-0.002	0.035	0.039
11	0.026	0.017	-0.033	0.007	0.028
12	0.023	0.014	-0.037	-0.006	-0.020
13	0.008	-0.008	0.001	0.008	-0.048
14	-0.032	0.039	-0.012	0.021	-0.010
15	0.007	0.054	-0.007	0.031	-0.005
16	-0.009	-0.005	0.011	-0.007	0.002
17	0.085	0.037	0.011	0.020	-0.004
18	0.018	-0.018	0.009	0.027	0.039
19	-0.006	0.006	0.011	0.010	0.000
20	0.008	-0.012	-0.005	0.008	0.013
21	0.054	-0.019	-0.024	-0.010	0.009
22	0.007	-0.015	0.020	-0.003	0.009
23	-0.036	0.000	0.036	-0.087	0.012
24	0.021	-0.051	-0.011	-0.009	-0.010
25	-0.013	-0.019	-0.029	-0.003	0.003
26	-0.016	0.026	0.004	0.000	0.033
27	-0.034	-0.016	-0.018	-0.042	-0.049
28	-0.007	0.011	0.016	0.003	-0.001
29	-0.021	0.028	-0.036	0.027	0.002
30	0.004	0.020	0.012	0.016	-0.036
31	0.040	-0.030	0.000	0.044	0.018
32	-0.025	-0.011	0.024	0.018	0.035
33	0.025	0.059	0.009	0.004	0.010
34	-0.015	-0.057	-0.028	-0.020	0.041
35	-0.028	-0.076	0.123	-0.130	-0.160
36	0.009	0.000	-0.005	0.005	-0.040
37	0.021	0.013	-0.015	-0.017	-0.023

38	-0.037	-0.012	0.054	0.026	0.001
39	0.011	0.011	0.013	0.018	-0.015
40	0.007	0.038	-0.021	-0.024	-0.078
41	-0.031	0.046	-0.035	-0.038	-0.007
42	-0.003	-0.007	-0.010	-0.002	0.009
43	-0.016	-0.007	-0.008	-0.016	-0.046
44	0.019	0.015	-0.019	0.028	0.036
45	-0.004	0.047	0.006	0.013	-0.009
46	-0.019	-0.015	0.017	0.021	0.003
47	0.011	-0.024	0.018	-0.021	-0.007
48	0.002	0.026	-0.028	0.021	0.009
49	0.003	0.039	-0.018	-0.020	-0.075

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.067	1.000			
8	0.059	0.119	1.000		
9	0.052	-0.029	0.091	1.000	
10	-0.108	-0.045	0.087	-0.099	1.000
11	-0.022	0.078	0.035	-0.019	0.025
12	0.041	-0.015	-0.017	0.005	-0.044
13	0.011	0.013	0.047	0.012	-0.018
14	0.023	-0.021	-0.041	-0.001	-0.031
15	-0.016	-0.011	-0.025	-0.038	0.031
16	-0.037	0.035	0.065	-0.023	0.029
17	0.010	0.011	-0.010	-0.033	0.022
18	0.033	0.012	0.018	0.045	-0.018
19	0.009	-0.021	-0.004	0.023	-0.024
20	-0.004	0.007	0.003	0.012	0.006
21	-0.045	0.016	-0.001	-0.072	0.000
22	-0.039	-0.021	-0.008	-0.010	0.009
23	0.006	0.051	0.021	0.039	0.013
24	0.022	-0.049	-0.045	0.005	0.006
25	0.006	-0.051	-0.002	-0.017	0.030
26	-0.016	0.027	0.032	0.023	-0.051
27	0.023	0.008	-0.009	0.000	-0.013
28	0.004	-0.047	-0.036	-0.019	0.031
29	0.006	-0.016	0.001	0.020	-0.042
30	0.026	0.053	0.055	0.018	-0.031
31	-0.029	-0.025	0.031	0.014	0.028
32	-0.008	0.027	-0.050	0.008	0.133

33	0.003	0.028	-0.017	0.058	0.003
34	-0.019	-0.007	-0.004	-0.036	-0.015
35	0.020	0.013	0.009	0.024	-0.044
36	-0.010	-0.015	-0.011	0.040	-0.070
37	0.001	-0.015	0.014	0.021	-0.057
38	0.007	0.056	0.020	0.002	-0.076
39	0.026	0.033	0.055	-0.003	-0.074
40	0.040	-0.004	0.014	0.009	-0.038
41	0.035	0.077	0.042	0.014	0.014
42	0.029	0.076	0.086	0.025	0.004
43	-0.026	-0.061	0.002	0.002	-0.029
44	0.019	0.039	0.013	-0.025	0.007
45	-0.006	-0.017	-0.029	0.005	0.028
46	-0.068	0.005	-0.009	-0.056	0.038
47	0.066	-0.028	0.025	0.020	-0.018
48	0.022	0.021	0.003	0.048	-0.037
49	0.039	-0.009	0.020	0.004	-0.047

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.309	1.000			
13	0.083	0.331	1.000		
14	-0.118	-0.202	-0.037	1.000	
15	-0.036	-0.131	-0.201	0.258	1.000
16	-0.013	-0.009	0.011	-0.142	-0.225
17	0.080	0.202	0.115	-0.161	-0.027
18	0.015	0.147	0.302	-0.078	-0.153
19	0.003	-0.033	-0.081	0.076	0.162
20	0.005	0.037	0.071	-0.009	-0.031
21	0.176	0.161	0.092	-0.232	-0.101
22	0.041	0.156	0.166	-0.103	-0.217
23	-0.002	-0.046	-0.040	0.151	0.127
24	-0.011	0.003	0.041	-0.022	-0.017
25	0.027	0.013	0.001	-0.060	-0.037
26	-0.070	-0.149	-0.077	0.157	0.061
27	-0.009	-0.064	-0.168	0.046	0.133
28	-0.025	-0.008	0.018	-0.062	-0.179
29	-0.026	-0.002	-0.055	0.023	0.041
30	0.035	0.008	-0.048	0.046	0.054
31	-0.033	-0.025	0.028	0.010	-0.017
32	0.014	0.017	0.005	-0.019	-0.014

33	-0.024	0.032	0.001	0.033	-0.034
34	-0.005	0.005	0.038	-0.041	-0.021
35	0.024	0.019	0.043	0.027	-0.016
36	-0.043	-0.027	-0.021	0.008	0.009
37	-0.016	-0.019	-0.022	0.008	0.005
38	0.028	0.008	0.024	0.043	-0.022
39	0.002	-0.003	0.031	0.048	-0.020
40	-0.002	0.007	0.027	-0.001	0.010
41	0.028	-0.025	-0.010	0.019	-0.010
42	-0.029	0.003	0.020	0.005	-0.029
43	0.005	0.004	0.003	0.005	-0.022
44	-0.025	-0.019	-0.041	0.002	0.012
45	0.042	0.026	0.047	0.015	-0.020
46	0.046	0.022	0.027	0.004	0.016
47	-0.033	-0.035	-0.025	-0.025	-0.025
48	-0.003	-0.006	0.013	0.004	-0.024
49	0.000	0.009	0.031	0.004	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.017	1.000			
18	0.025	0.281	1.000		
19	-0.223	-0.086	-0.150	1.000	
20	0.041	0.122	0.227	-0.267	1.000
21	0.055	0.221	0.122	-0.044	0.027
22	0.073	0.106	0.263	-0.099	0.136
23	-0.242	-0.048	-0.091	0.283	-0.064
24	0.019	0.125	0.078	-0.205	0.363
25	0.038	0.078	0.047	-0.059	0.065
26	-0.035	-0.252	-0.120	-0.024	-0.029
27	-0.034	-0.090	-0.277	0.065	-0.053
28	0.240	0.043	0.051	-0.236	0.083
29	-0.055	-0.096	-0.175	0.157	-0.356
30	-0.037	-0.044	-0.040	0.037	-0.084
31	0.035	0.012	0.080	-0.069	0.088
32	-0.033	0.003	-0.006	-0.012	-0.050
33	-0.008	-0.025	0.022	0.006	-0.001
34	0.037	0.031	0.017	0.002	0.023
35	0.010	-0.008	0.016	-0.008	-0.008
36	0.043	-0.020	-0.008	0.023	0.045
37	0.015	-0.010	0.007	0.021	0.054



38	-0.007	-0.021	-0.048	-0.023	-0.003
39	0.035	-0.014	-0.026	-0.026	-0.002
40	0.044	-0.033	-0.016	0.022	-0.017
41	-0.007	0.031	-0.032	0.024	-0.010
42	0.022	-0.035	0.011	0.008	-0.041
43	-0.038	0.024	0.016	0.021	0.036
44	0.012	-0.005	-0.002	0.001	-0.003
45	0.005	-0.011	-0.008	-0.002	-0.042
46	0.002	0.012	0.019	0.004	0.044
47	0.035	0.012	0.006	-0.007	0.009
48	0.006	0.023	-0.002	0.003	0.029
49	0.046	-0.035	-0.019	0.019	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	0.252	1.000			
23	-0.100	-0.183	1.000		
24	0.080	0.212	-0.177	1.000	
25	0.147	0.146	-0.208	0.299	1.000
26	-0.294	-0.118	0.025	-0.052	-0.060
27	-0.101	-0.256	0.097	-0.073	-0.046
28	0.058	0.084	-0.271	0.104	0.049
29	-0.054	-0.101	0.105	-0.323	-0.094
30	-0.116	-0.182	0.153	-0.259	-0.332
31	0.002	0.058	-0.031	0.134	0.020
32	-0.010	-0.002	0.017	-0.047	-0.031
33	0.013	0.009	0.006	-0.046	-0.060
34	0.010	0.006	-0.039	0.028	0.037
35	0.034	-0.011	-0.014	-0.017	0.035
36	-0.004	0.010	-0.033	0.032	0.029
37	-0.002	-0.003	-0.015	0.034	0.020
38	-0.016	0.018	0.002	0.014	-0.007
39	-0.029	-0.014	-0.026	0.017	0.010
40	-0.019	0.028	0.002	0.006	0.014
41	-0.024	-0.009	0.002	-0.028	0.015
42	0.008	-0.003	0.030	-0.066	-0.026
43	0.035	0.050	0.006	0.045	0.034
44	-0.010	-0.027	-0.013	-0.024	-0.023
45	-0.010	-0.013	0.012	-0.034	0.014
46	0.012	0.058	-0.020	0.011	0.016
47	-0.012	-0.009	0.016	-0.004	-0.010

48	-0.026	0.014	-0.036	0.030	0.015
49	-0.019	0.027	-0.001	0.009	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.242	1.000			
28	-0.134	-0.182	1.000		
29	0.088	0.196	-0.223	1.000	
30	0.171	0.116	-0.190	0.304	1.000
31	-0.110	-0.201	0.206	-0.332	-0.359
32	0.015	-0.018	-0.025	0.001	0.013
33	0.018	0.005	-0.025	0.033	0.031
34	-0.015	-0.038	0.022	-0.040	-0.035
35	-0.017	0.054	-0.027	0.024	0.042
36	-0.016	0.027	0.050	0.019	-0.008
37	-0.025	0.011	0.038	-0.010	-0.010
38	-0.003	-0.001	0.006	-0.005	-0.033
39	0.012	-0.017	0.035	-0.011	-0.040
40	-0.014	-0.019	0.041	-0.021	-0.031
41	0.025	0.073	-0.022	0.012	0.012
42	-0.011	0.022	0.001	0.007	0.022
43	0.026	-0.002	0.040	0.039	0.005
44	-0.029	-0.023	-0.028	-0.019	-0.018
45	0.034	0.038	0.026	0.029	0.035
46	-0.035	-0.036	-0.001	-0.004	0.009
47	0.025	0.012	-0.001	-0.032	-0.031
48	-0.015	-0.016	0.055	-0.040	0.011
49	-0.014	-0.020	0.043	-0.019	-0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	-0.026	1.000			
33	0.005	0.022	1.000		
34	0.026	0.023	-0.565	1.000	
35	-0.056	0.025	0.037	-0.087	1.000
36	0.011	-0.844	0.008	-0.029	-0.030
37	0.032	-0.881	-0.031	-0.019	-0.026
38	0.000	0.042	-0.006	0.013	-0.084

39	0.007	0.019	-0.030	0.022	-0.053
40	0.033	-0.129	0.002	0.005	0.001
41	-0.003	-0.043	0.013	0.011	-0.003
42	-0.010	-0.011	0.005	-0.036	-0.012
43	-0.012	-0.004	0.012	0.013	0.034
44	-0.008	-0.023	-0.021	-0.004	-0.033
45	-0.023	0.061	-0.006	0.001	0.006
46	-0.010	-0.016	0.025	-0.060	-0.033
47	0.044	-0.029	-0.002	0.042	-0.084
48	0.012	0.012	-0.021	-0.012	0.027
49	0.033	-0.122	0.001	0.008	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.767	1.000			
38	-0.087	-0.046	1.000		
39	-0.046	-0.039	0.677	1.000	
40	0.068	0.109	0.108	0.160	1.000
41	-0.009	-0.026	-0.071	-0.049	0.054
42	0.003	0.020	0.006	0.108	0.057
43	-0.002	0.006	-0.003	-0.004	0.016
44	0.025	0.041	0.002	0.034	-0.009
45	-0.048	-0.079	0.008	-0.026	0.014
46	0.003	0.017	0.059	0.008	-0.053
47	0.006	0.037	0.023	0.075	0.139
48	0.017	0.008	-0.027	-0.032	-0.012
49	0.059	0.101	0.198	0.257	0.993

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.028	1.000			
43	-0.028	-0.031	1.000		
44	0.023	0.026	-0.677	1.000	
45	0.018	-0.026	0.264	-0.656	1.000
46	-0.021	0.002	0.035	-0.107	0.060
47	-0.028	-0.009	-0.024	0.111	-0.121
48	0.053	-0.013	0.020	-0.033	0.025
49	0.042	0.061	0.015	-0.006	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	46	47	48	49
46	1.000			
47	-0.558	1.000		
48	0.105	-0.145	1.000	
49	-0.047	0.143	-0.016	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	41
200	1.022	41
300	1.009	47
400	1.005	47
500	1.008	42
600	1.005	49
700	1.010	49
800	1.008	49
900	1.005	49
1000	1.002	42

These are models replicating significant effects reported in Table 4 of main text with controls for organisational size and sector

This is the model for deterioration in physical health

#### SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	5546

Number of dependent variables	1
Number of independent variables	11
Number of continuous latent variables	0

Observed dependent variables

Binary and ordered categorical (ordinal)  
PHYCAT16

Observed independent variables

PHY15	KES15	PRAFAC	CHOICE15	BULLY15	PRESS15
DUTIES15	SIZCAT	FINPRO	KNOW	MANU	

Variables with special functions

Cluster variable      CID15

Within variables

PHY15	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
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Between variables

PRAFAC	SIZCAT	FINPRO	KNOW	MANU
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Centering (GRANDMEAN)

PHY15	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
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Estimator	BAYES
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Specifications for Bayesian Estimation

Point estimate	MEDIAN
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Number of Markov chain Monte Carlo (MCMC) chains	3
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Random seed for the first chain	0
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Starting value information	UNPERTURBED
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Algorithm used for Markov chain Monte Carlo	GIBBS (PX1)
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Convergence criterion	0.100D-01
Maximum number of iterations	50000
K-th iteration used for thinning	20
Link	PROBIT

Input data file(s)  
multicomponent for mplus cat.dat  
Input data format FREE

# SUMMARY OF DATA

Number of clusters	58
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Size (s)	Cluster ID with Size s
7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4

68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	1.000				
PRAFAC	1.000	1.000			
SIZCAT	1.000	1.000	1.000		
FINPRO	1.000	1.000	1.000	1.000	
KNOW	1.000	1.000	1.000	1.000	1.000
MANU	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	MANU	PHY15	KES15	CHOICE15	BULLY15
MANU	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage	
	PRESS15	DUTIES15
PRESS15	0.915	
DUTIES15	0.915	0.915

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

#### UNIVARIATE SAMPLE STATISTICS

##### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
SIZCAT	0.483	0.069	0.000	51.72%	0.000	0.000	0.000
58.000	0.250	-1.995	1.000	48.28%	1.000	1.000	
FINPRO	0.379	0.497	0.000	62.07%	0.000	0.000	0.000
58.000	0.235	-1.753	1.000	37.93%	0.000	1.000	
KNOW	0.190	1.583	0.000	81.03%	0.000	0.000	0.000



	58.000	0.154	0.507	1.000	18.97%	0.000	0.000	
MANU		0.069	3.402	0.000	93.10%	0.000	0.000	0.000
	58.000	0.064	9.574	1.000	6.90%	0.000	0.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.128	2.233	0.000	87.25%	0.000	0.000	0.000
	5073.000	0.111	2.987	1.000	12.75%	0.000	0.000	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 60

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-38.332 35.202

Posterior Predictive P-Value 0.523

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16 ON						
PHY15	0.972	0.067	0.000	0.840	1.098	*
CHOICE15	-0.069	0.025	0.003	-0.118	-0.021	*
BULLY15	0.062	0.074	0.203	-0.078	0.206	
DUTIES15	-0.030	0.028	0.144	-0.084	0.026	
PRESS15	-0.036	0.026	0.091	-0.089	0.017	
KES15	0.225	0.044	0.000	0.141	0.307	*

KES15 WITH						
PHY15	0.051	0.004	0.000	0.044	0.059	*
CHOICE15	-0.089	0.008	0.000	-0.104	-0.073	*
BULLY15	0.035	0.003	0.000	0.030	0.040	*
PRESS15	0.100	0.008	0.000	0.085	0.114	*
DUTIES15	-0.105	0.007	0.000	-0.120	-0.092	*

PHY15 WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.022	*
BULLY15	0.008	0.002	0.001	0.003	0.012	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.037	0.006	0.000	-0.049	-0.024	*

CHOICE15 WITH						
BULLY15	-0.034	0.005	0.000	-0.043	-0.025	*
PRESS15	-0.087	0.015	0.000	-0.115	-0.057	*
DUTIES15	0.173	0.013	0.000	0.147	0.198	*

BULLY15 WITH						
PRESS15	0.073	0.005	0.000	0.063	0.083	*
DUTIES15	-0.050	0.004	0.000	-0.059	-0.042	*

PRESS15 WITH						
DUTIES15	-0.185	0.013	0.000	-0.212	-0.162	*

Means						
PHY15	0.002	0.007	0.390	-0.011	0.015	
KES15	0.001	0.008	0.428	-0.014	0.017	
CHOICE15	-0.001	0.015	0.463	-0.030	0.027	
BULLY15	0.128	0.005	0.000	0.119	0.137	*
PRESS15	0.001	0.014	0.481	-0.027	0.030	
DUTIES15	-0.002	0.013	0.453	-0.027	0.024	

Variances

PHY15	0.233	0.005	0.000	0.224	0.242	*
KES15	0.290	0.006	0.000	0.279	0.302	*
CHOICE15	1.081	0.021	0.000	1.039	1.123	*
BULLY15	0.111	0.002	0.000	0.107	0.116	*
PRESS15	1.002	0.019	0.000	0.964	1.041	*
DUTIES15	0.861	0.017	0.000	0.826	0.893	*

Between Level

PHYCAT16 ON						
PRAFAC	-0.108	0.035	0.001	-0.180	-0.042	*
SIZCAT	0.096	0.075	0.104	-0.050	0.249	
FINPRO	-0.003	0.078	0.483	-0.158	0.149	
KNOW	0.158	0.104	0.061	-0.043	0.376	
MANU	0.053	0.114	0.310	-0.175	0.279	

PRAFAC WITH						
SIZCAT	0.155	0.086	0.022	0.004	0.343	*
FINPRO	0.084	0.081	0.124	-0.062	0.270	
KNOW	0.063	0.066	0.148	-0.058	0.203	
MANU	0.012	0.047	0.381	-0.081	0.107	

SIZCAT WITH						
FINPRO	0.007	0.034	0.415	-0.061	0.075	
KNOW	-0.006	0.030	0.413	-0.064	0.054	
MANU	0.018	0.020	0.162	-0.019	0.063	

FINPRO WITH						
KNOW	-0.072	0.029	0.003	-0.138	-0.022	*
MANU	-0.027	0.021	0.065	-0.070	0.010	

KNOW WITH						
MANU	-0.012	0.016	0.215	-0.047	0.018	

Means						
PRAFAC	-0.180	0.155	0.124	-0.492	0.131	
SIZCAT	0.484	0.067	0.000	0.359	0.621	*
FINPRO	0.382	0.064	0.000	0.247	0.509	*
KNOW	0.188	0.056	0.000	0.081	0.298	*
MANU	0.068	0.037	0.035	-0.005	0.144	

Thresholds						
PHYCAT16\$1	1.449	0.074	0.000	1.307	1.593	*

Variances						
PRAFAC	1.357	0.265	0.000	0.968	1.996	*
SIZCAT	0.268	0.053	0.000	0.191	0.388	*
FINPRO	0.252	0.050	0.000	0.178	0.370	*
KNOW	0.172	0.033	0.000	0.120	0.251	*
MANU	0.081	0.016	0.000	0.058	0.122	*
Residual Variances						
PHYCAT16	0.015	0.012	0.000	0.001	0.047	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within Level					Lower 2.5%	Upper 2.5%	
PHYCAT16 ON							
	PHY15	0.415	0.024	0.000	0.367	0.459	*
	CHOICE15	-0.064	0.023	0.003	-0.109	-0.019	*
	BULLY15	0.018	0.022	0.203	-0.024	0.060	
	DUTIES15	-0.025	0.023	0.144	-0.068	0.022	
	PRESS15	-0.032	0.023	0.091	-0.078	0.016	
	KES15	0.108	0.021	0.000	0.067	0.147	*
KES15 WITH							
	PHY15	0.198	0.014	0.000	0.171	0.225	*
	CHOICE15	-0.159	0.014	0.000	-0.185	-0.132	*
	BULLY15	0.195	0.014	0.000	0.168	0.221	*
	PRESS15	0.185	0.014	0.000	0.159	0.211	*
	DUTIES15	-0.211	0.013	0.000	-0.239	-0.185	*
PHY15 WITH							
	CHOICE15	-0.072	0.014	0.000	-0.100	-0.044	*
	BULLY15	0.050	0.014	0.001	0.020	0.075	*
	PRESS15	0.080	0.014	0.000	0.052	0.108	*
	DUTIES15	-0.082	0.014	0.000	-0.110	-0.053	*
CHOICE15 WITH							
	BULLY15	-0.099	0.014	0.000	-0.124	-0.072	*
	PRESS15	-0.084	0.014	0.000	-0.111	-0.055	*

DUTIES15	0.179	0.013	0.000	0.154	0.204	*
BULLY15 WITH						
PRESS15	0.218	0.014	0.000	0.192	0.245	*
DUTIES15	-0.162	0.014	0.000	-0.189	-0.135	*
PRESS15 WITH						
DUTIES15	-0.199	0.013	0.000	-0.226	-0.175	*
Means						
PHY15	0.004	0.014	0.390	-0.023	0.031	
KES15	0.002	0.014	0.428	-0.026	0.031	
CHOICE15	-0.001	0.014	0.463	-0.029	0.026	
BULLY15	0.383	0.015	0.000	0.354	0.412	*
PRESS15	0.001	0.014	0.481	-0.027	0.030	
DUTIES15	-0.002	0.014	0.453	-0.030	0.025	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON						
PRAFAC	-0.663	0.172	0.001	-0.955	-0.276	*
SIZCAT	0.257	0.188	0.104	-0.142	0.584	
FINPRO	-0.008	0.196	0.483	-0.401	0.362	
KNOW	0.338	0.208	0.061	-0.084	0.717	
MANU	0.083	0.165	0.310	-0.245	0.394	
PRAFAC WITH						
SIZCAT	0.259	0.123	0.022	0.007	0.480	*
FINPRO	0.148	0.126	0.124	-0.104	0.398	
KNOW	0.131	0.127	0.148	-0.120	0.377	
MANU	0.038	0.132	0.381	-0.229	0.296	
SIZCAT WITH						
FINPRO	0.027	0.126	0.415	-0.224	0.280	
KNOW	-0.025	0.130	0.413	-0.272	0.235	
MANU	0.128	0.125	0.162	-0.124	0.371	

FINPRO	WITH						
KNOW		-0.352	0.113	0.003	-0.551	-0.101	*
MANU		-0.193	0.126	0.065	-0.427	0.078	
KNOW	WITH						
MANU		-0.104	0.129	0.215	-0.359	0.144	
Means							
PRAFAC		-0.155	0.132	0.124	-0.411	0.106	
SIZCAT		0.943	0.155	0.000	0.648	1.258	*
FINPRO		0.760	0.147	0.000	0.462	1.045	*
KNOW		0.455	0.140	0.000	0.186	0.743	*
MANU		0.241	0.131	0.035	-0.016	0.507	
Thresholds							
PHYCAT16	\$1	7.338	1.882	0.000	4.981	12.309	*
Variances							
PRAFAC		1.000	0.000	0.000	1.000	1.000	
SIZCAT		1.000	0.000	0.000	1.000	1.000	
FINPRO		1.000	0.000	0.000	1.000	1.000	
KNOW		1.000	0.000	0.000	1.000	1.000	
MANU		1.000	0.000	0.000	1.000	1.000	
Residual Variances							
PHYCAT16		0.398	0.187	0.000	0.061	0.767	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.175	0.257

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.602	0.187	0.000	0.233	0.939

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

LAMBDA

PRESS15

0

DUTIES15

0

PHYCAT16

0

PHY15

0

KES15

0

0

0

0

0

0

0

0

0

0

0

0

0

CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>0</u>	<u>0</u>
DUTIES15	0

ALPHA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>6</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0



BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
PHYCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

	TAU
	PHYCAT16
	<u>60</u>

NU	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

NU	MANU
	<u>0</u>

LAMBDA	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0	0
SIZCAT	0	0	0	0	0
FINPRO	0	0	0	0	0
KNOW	0	0	0	0	0
MANU	0	0	0	0	0

LAMBDA	MANU
PHYCAT16	<u>0</u>
PRAFAC	0
SIZCAT	0
FINPRO	0
KNOW	0
MANU	0

THETA	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0			
SIZCAT	0	0	0		
FINPRO	0	0	0	0	
KNOW	0	0	0	0	0
MANU	0	0	0	0	0

<div> <div>THETA</div> <div>MANU</div> <div> <div>MANU</div> <div>0</div> </div> </div>					
<div> <div>ALPHA</div> <div> <div>PHYCAT16</div> <div>0</div> </div> <div> <div>PRAFAC</div> <div>34</div> </div> <div> <div>SIZCAT</div> <div>35</div> </div> <div> <div>FINPRO</div> <div>36</div> </div> <div> <div>KNOW</div> <div>37</div> </div> </div>					
<div> <div>ALPHA</div> <div>MANU</div> <div>38</div> </div>					
<div> <div>BETA</div> <div> <div>PHYCAT16</div> <div>0</div> </div> <div> <div>PRAFAC</div> <div>39</div> </div> <div> <div>SIZCAT</div> <div>40</div> </div> <div> <div>FINPRO</div> <div>41</div> </div> <div> <div>KNOW</div> <div>42</div> </div> </div>					
PHYCAT16	0	39	40	41	42
PRAFAC	0	0	0	0	0
SIZCAT	0	0	0	0	0
FINPRO	0	0	0	0	0
KNOW	0	0	0	0	0
MANU	0	0	0	0	0
<div> <div>BETA</div> <div>MANU</div> <div> <div>PHYCAT16</div> <div>43</div> </div> <div> <div>PRAFAC</div> <div>0</div> </div> <div> <div>SIZCAT</div> <div>0</div> </div> <div> <div>FINPRO</div> <div>0</div> </div> <div> <div>KNOW</div> <div>0</div> </div> <div> <div>MANU</div> <div>0</div> </div> </div>					
<div> <div>PSI</div> <div> <div>PHYCAT16</div> <div>0</div> </div> <div> <div>PRAFAC</div> <div>0</div> </div> <div> <div>SIZCAT</div> <div>0</div> </div> <div> <div>FINPRO</div> <div>0</div> </div> <div> <div>KNOW</div> <div>0</div> </div> </div>					

PHYCAT16	<u>44</u>				
PRAFAC	0	45			
SIZCAT	0	46	47		
FINPRO	0	48	49	50	
KNOW	0	51	52	53	54
MANU	0	55	56	57	58

	PSI	
	MANU	
MANU	<u>59</u>	

STARTING VALUES FOR WITHIN

TAU	
PHYCAT16	
	<u>0.000</u>

NU					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

NU		
PRESS15	DUTIES15	
<u>0.000</u>	<u>0.000</u>	

LAMBDA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PHY15	1.000	0.000	0.000	0.000	
KES15	0.000	1.000	0.000	0.000	
CHOICE15	0.000	0.000	1.000	0.000	
BULLY15	0.000	0.000	0.000	1.000	

PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.128

ALPHA

	PRESS15	DUTIES15

0.000            0.000

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.056
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

	PRESS15	DUTIES15
PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU  
PHYCAT16  

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1.110

NU	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU  
MANU  

---

0.000

LAMBDA	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	1.000	0.000	0.000	0.000
SIZCAT	0.000	0.000	1.000	0.000	0.000
FINPRO	0.000	0.000	0.000	1.000	0.000
KNOW	0.000	0.000	0.000	0.000	1.000
MANU	0.000	0.000	0.000	0.000	0.000

LAMBDA	MANU
PHYCAT16	<hr/> 0.000
PRAFAC	0.000
SIZCAT	0.000
FINPRO	0.000
KNOW	0.000
MANU	1.000

THETA					
	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	0.000				
PRAFAC	0.000	0.000			
SIZCAT	0.000	0.000	0.000		
FINPRO	0.000	0.000	0.000	0.000	
KNOW	0.000	0.000	0.000	0.000	0.000
MANU	0.000	0.000	0.000	0.000	0.000

THETA	
	MANU
MANU	0.000

ALPHA					
	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	0.000	0.020	0.726	0.442	0.099

ALPHA	
	MANU
	0.192

BETA					
	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000	0.000
SIZCAT	0.000	0.000	0.000	0.000	0.000
FINPRO	0.000	0.000	0.000	0.000	0.000
KNOW	0.000	0.000	0.000	0.000	0.000
MANU	0.000	0.000	0.000	0.000	0.000

BETA	
	MANU



PHYCAT16	0.000
PRAFAC	0.000
SIZCAT	0.000
FINPRO	0.000
KNOW	0.000
MANU	0.000

PSI					
	PHYCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
PHYCAT16	1.000				
PRAFAC	0.000	0.504			
SIZCAT	0.000	0.000	0.099		
FINPRO	0.000	0.000	0.000	0.123	
KNOW	0.000	0.000	0.000	0.000	0.044
MANU	0.000	0.000	0.000	0.000	0.000

PSI	
	MANU
MANU	0.078

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
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Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity

Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 44~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 45~IW(1.000,6)	infinity	infinity	infinity
Parameter 46~IW(0.000,6)	infinity	infinity	infinity
Parameter 47~IW(1.000,6)	infinity	infinity	infinity
Parameter 48~IW(0.000,6)	infinity	infinity	infinity
Parameter 49~IW(0.000,6)	infinity	infinity	infinity
Parameter 50~IW(1.000,6)	infinity	infinity	infinity
Parameter 51~IW(0.000,6)	infinity	infinity	infinity
Parameter 52~IW(0.000,6)	infinity	infinity	infinity
Parameter 53~IW(0.000,6)	infinity	infinity	infinity
Parameter 54~IW(1.000,6)	infinity	infinity	infinity
Parameter 55~IW(0.000,6)	infinity	infinity	infinity
Parameter 56~IW(0.000,6)	infinity	infinity	infinity
Parameter 57~IW(0.000,6)	infinity	infinity	infinity
Parameter 58~IW(0.000,6)	infinity	infinity	infinity
Parameter 59~IW(1.000,6)	infinity	infinity	infinity
Parameter 60~N(0.000,5.000)	0.0000	5.0000	2.2361

TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.438292D-04				
2	0.847089D-05	0.575531D-04			
3	-0.345853D-05	-0.139327D-04	0.210818D-03		
4	0.158100D-05	0.482886D-05	-0.298952D-05	0.220257D-04	
5	0.567985D-05	0.168203D-04	-0.154451D-04	0.149922D-04	0.205159D-03
6	-0.894659D-05	-0.186623D-04	0.211653D-04	-0.877059D-05	-0.343234D-04
7	-0.168399D-05	-0.180537D-05	0.167158D-04	-0.551359D-05	0.810686D-05
8	-0.109613D-04	-0.586482D-05	-0.113913D-04	0.255432D-05	-0.128910D-04
9	-0.110567D-05	0.485457D-05	-0.322769D-05	0.240210D-05	-0.286345D-05
10	0.585571D-05	-0.189132D-04	0.728059D-04	0.436197D-05	-0.214846D-04
11	0.129660D-05	0.465355D-05	-0.420573D-05	-0.145807D-05	0.896084D-05
12	-0.135810D-05	-0.336399D-05	-0.112013D-04	0.356808D-06	-0.302672D-05
13	-0.231502D-06	0.560308D-06	0.243526D-05	-0.566396D-07	-0.659313D-06
14	0.384910D-06	0.153918D-05	-0.192421D-05	0.968236D-07	-0.385747D-06
15	-0.447515D-06	-0.168735D-06	-0.389979D-05	0.241669D-07	0.215605D-05
16	-0.201084D-05	0.138040D-06	-0.299423D-05	-0.726561D-06	0.799897D-06
17	-0.167082D-05	0.180822D-05	0.217394D-05	-0.617389D-06	0.330155D-05
18	0.358411D-05	-0.308292D-05	0.388630D-05	-0.395297D-05	0.563389D-05
19	0.858741D-07	-0.188662D-06	-0.200541D-05	0.163565D-07	0.584298D-06
20	0.200461D-06	-0.600072D-06	-0.144557D-06	0.587669D-08	-0.969827D-06
21	0.177507D-05	-0.500553D-06	-0.273478D-05	0.318474D-06	0.228289D-05
22	-0.753389D-06	0.330262D-06	0.309501D-06	-0.379637D-08	0.138843D-05
23	0.185581D-05	-0.890645D-06	-0.356616D-06	0.736689D-06	-0.151286D-06
24	-0.180858D-05	-0.184201D-05	-0.135066D-05	0.177006D-06	-0.690900D-06
25	-0.214182D-06	0.349922D-07	0.131086D-05	0.124826D-05	-0.129770D-05
26	0.110155D-06	-0.206359D-05	0.255997D-05	-0.631266D-06	0.991645D-06
27	-0.349034D-05	-0.696479D-05	0.518145D-06	-0.579283D-06	0.905592D-05
28	-0.469056D-06	0.336966D-08	0.174252D-05	-0.459781D-08	0.203174D-05
29	-0.627090D-06	0.127951D-05	0.274994D-05	-0.622186D-06	-0.375027D-05
30	0.214300D-05	0.204004D-05	0.198748D-05	0.118140D-05	0.399554D-06
31	-0.274110D-06	-0.276930D-07	0.144726D-05	0.675497D-06	-0.350545D-05
32	0.247920D-05	0.287887D-05	0.211476D-06	0.122442D-05	0.627887D-05
33	0.249951D-05	-0.399864D-05	-0.155864D-05	-0.145434D-05	-0.286362D-06
34	0.666390D-05	-0.250084D-04	-0.130483D-05	-0.117614D-04	-0.201727D-04
35	-0.250794D-05	0.260509D-05	-0.112633D-04	0.801124D-05	0.364475D-04
36	-0.197116D-04	0.120910D-04	0.348376D-04	0.242783D-05	0.250580D-04

37	0.800477D-06	-0.924624D-05	0.158881D-04	-0.106512D-04	-0.408424D-04
38	0.402751D-05	-0.575559D-05	-0.167491D-05	-0.224166D-05	0.154451D-04
39	0.152648D-05	0.627685D-05	0.611389D-06	-0.323062D-05	-0.180871D-04
40	0.280848D-05	-0.305332D-05	0.440116D-04	0.794180D-05	-0.104850D-04
41	-0.317064D-05	-0.197301D-04	0.801871D-05	-0.589712D-05	0.595552D-05
42	0.121666D-04	-0.116378D-04	-0.201004D-04	0.786437D-06	-0.154348D-04
43	-0.197797D-04	-0.251724D-04	-0.228810D-04	0.928921D-05	-0.697432D-05
44	0.144758D-05	-0.269505D-05	-0.603466D-05	0.844886D-06	0.676132D-05
45	-0.536500D-04	-0.126392D-04	-0.566509D-04	0.293947D-04	0.289601D-05
46	0.177835D-05	-0.711584D-05	-0.339669D-04	0.149768D-04	0.533979D-05
47	0.571123D-05	0.270715D-04	-0.237819D-04	0.558226D-05	-0.844859D-05
48	-0.854682D-05	0.120217D-04	0.115641D-04	-0.326597D-05	0.940104D-05
49	0.167705D-05	-0.110116D-04	-0.848691D-05	-0.393219D-05	-0.381093D-05
50	0.877607D-05	0.187456D-04	-0.624178D-05	0.475678D-05	-0.136002D-04
51	-0.280029D-05	0.105695D-04	-0.195445D-04	0.221268D-05	0.118087D-04
52	0.280623D-05	0.421008D-05	-0.642201D-05	-0.375313D-05	0.399837D-05
53	-0.118980D-05	-0.128862D-04	-0.104015D-04	0.477931D-06	0.285461D-05
54	0.776551D-05	0.785235D-05	0.911048D-05	0.517349D-06	-0.898048D-05
55	0.155421D-04	0.768356D-05	0.115752D-04	0.952068D-05	-0.554212D-05
56	0.295361D-05	-0.481960D-06	0.143367D-04	0.589419D-05	-0.611051D-05
57	-0.197744D-05	-0.162553D-05	0.785123D-05	-0.197434D-07	0.821565D-05
58	0.139532D-05	-0.370220D-05	0.413063D-05	-0.327660D-07	0.995890D-06
59	0.169127D-05	0.204357D-05	-0.135849D-04	0.254458D-05	-0.948505D-05
60	0.717157D-05	-0.243048D-04	0.203693D-04	0.394043D-05	-0.113141D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.164270D-03				
7	0.145139D-05	0.443421D-02			
8	-0.820574D-05	-0.342315D-03	0.192578D-02		
9	0.292039D-05	-0.337723D-04	0.508725D-04	0.605981D-03	
10	0.139215D-04	-0.380548D-04	-0.515771D-03	0.907089D-04	0.544157D-02
11	-0.170001D-05	-0.129326D-03	-0.123062D-03	0.259879D-04	-0.407653D-03
12	0.565445D-05	-0.432636D-04	0.205539D-03	-0.904934D-04	0.123531D-03
13	0.248603D-06	-0.812964D-05	-0.995079D-06	-0.324046D-05	0.543563D-05
14	-0.959600D-06	-0.789412D-05	-0.204609D-05	0.110540D-05	0.703045D-06
15	-0.238699D-05	0.498239D-05	0.749297D-05	0.705589D-05	0.307893D-06
16	0.358354D-05	0.663525D-05	-0.794094D-05	0.207822D-05	0.612219D-05
17	-0.243111D-05	0.670790D-05	0.172178D-07	0.356402D-05	0.193067D-04
18	-0.294477D-05	0.527465D-04	-0.428889D-04	-0.423656D-05	0.126814D-05
19	-0.147560D-05	-0.345402D-05	-0.206584D-06	0.164832D-05	-0.652657D-06
20	-0.152488D-05	-0.355609D-05	0.413607D-05	0.166216D-05	0.223827D-05

21	0.213339D-05	0.158022D-06	0.411256D-05	0.594541D-07	0.383823D-05
22	0.504727D-07	0.118269D-05	-0.103297D-05	-0.181383D-05	0.221608D-05
23	-0.307587D-05	-0.670885D-05	0.698347D-06	-0.291855D-05	-0.228105D-04
24	-0.113296D-05	0.101939D-04	0.593376D-05	0.665082D-05	0.373494D-05
25	0.771537D-05	0.453390D-05	0.137553D-04	-0.694800D-05	-0.553691D-04
26	0.164902D-05	-0.221348D-06	0.316424D-05	-0.275154D-05	-0.161968D-06
27	-0.403500D-05	0.527472D-04	0.181298D-04	0.175045D-04	-0.470383D-04
28	0.192479D-06	0.198792D-04	0.655540D-05	0.475446D-06	-0.237661D-05
29	0.855182D-06	0.191125D-05	-0.872290D-05	0.728068D-06	-0.103203D-04
30	-0.523357D-05	-0.247868D-04	-0.313458D-05	-0.938938D-05	-0.402409D-04
31	0.112161D-05	-0.789891D-05	-0.142664D-05	-0.114322D-05	0.288335D-05
32	-0.483957D-05	-0.879072D-06	-0.115650D-04	-0.117808D-04	0.338711D-04
33	0.682738D-05	-0.239129D-04	0.232093D-04	-0.194121D-04	-0.533075D-05
34	-0.203918D-05	-0.527673D-04	0.233565D-03	0.506245D-04	-0.255104D-03
35	-0.158285D-04	0.366492D-04	-0.631789D-04	0.119661D-03	0.180718D-04
36	0.100252D-04	-0.247342D-05	-0.477446D-04	-0.380005D-05	-0.116717D-04
37	-0.622301D-05	0.102469D-03	0.711866D-04	-0.842569D-04	-0.647410D-04
38	0.493980D-05	-0.270807D-04	0.192066D-05	-0.119973D-04	-0.322822D-04
39	-0.329230D-05	-0.194122D-05	-0.189998D-04	-0.102301D-04	-0.824961D-05
40	-0.118799D-04	0.270107D-03	0.406100D-04	-0.299446D-04	0.318533D-04
41	0.392032D-05	0.122430D-03	0.991727D-04	0.131452D-03	-0.365348D-04
42	0.109580D-04	-0.130292D-05	0.523729D-04	-0.105259D-03	0.707455D-04
43	-0.285891D-05	0.436203D-04	0.226885D-03	0.119276D-03	-0.117218D-04
44	-0.964417D-05	0.253713D-04	-0.441694D-05	-0.319444D-05	0.570091D-05
45	0.253334D-04	-0.150783D-04	0.453430D-03	-0.179746D-03	0.174003D-03
46	0.405684D-04	-0.131931D-03	-0.697546D-04	0.941650D-05	0.253833D-03
47	-0.437680D-05	-0.116708D-03	0.413337D-04	0.240664D-04	0.394663D-04
48	0.203896D-05	0.773940D-04	-0.910731D-06	-0.652407D-04	0.681615D-04
49	0.114516D-04	0.252277D-04	-0.109598D-04	0.136989D-04	-0.963454D-04
50	0.120792D-04	0.265485D-04	0.794568D-04	-0.240303D-04	0.102989D-03
51	0.835301D-05	0.155000D-03	-0.638418D-04	0.374837D-05	-0.774901D-04
52	0.119777D-04	0.336768D-04	-0.697892D-04	0.179455D-04	-0.485376D-05
53	-0.326477D-05	-0.306605D-04	-0.485549D-04	0.284751D-04	-0.180900D-04
54	0.148540D-04	0.278591D-04	0.267492D-04	-0.260090D-04	0.105368D-04
55	-0.883685D-05	0.164937D-04	0.497438D-04	-0.518886D-05	-0.687738D-05
56	-0.109599D-04	0.456114D-04	0.169419D-04	0.140261D-04	0.577986D-04
57	-0.133664D-04	0.241841D-04	0.299843D-04	0.100664D-04	-0.499001D-04
58	0.424608D-06	-0.228926D-05	-0.199414D-04	-0.296160D-05	0.372952D-04
59	0.427642D-06	0.378089D-04	-0.353992D-05	-0.931292D-05	0.135986D-04
60	-0.172822D-04	0.105460D-02	0.112763D-03	-0.613840D-05	0.720294D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

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11	0.689225D-03				
12	0.103643D-03	0.778152D-03			
13	-0.163546D-05	-0.456010D-05	0.217435D-04		
14	0.185664D-05	0.282908D-05	0.539024D-05	0.140850D-04	
15	-0.518763D-06	-0.819275D-06	0.172898D-05	0.552240D-05	0.325767D-04
16	-0.703719D-05	0.227727D-06	-0.326858D-05	-0.443808D-05	-0.310989D-05
17	-0.138140D-04	-0.130358D-05	0.341018D-06	-0.297861D-05	-0.947246D-05
18	0.187187D-04	0.164168D-04	-0.339125D-06	0.788302D-06	0.635459D-05
19	-0.211195D-05	-0.420107D-05	0.979964D-06	0.190450D-05	0.675799D-06
20	-0.297328D-06	-0.134658D-05	0.369728D-06	0.686454D-06	0.402883D-05
21	-0.101620D-05	0.203846D-05	-0.3038601D-07	-0.632602D-06	0.396027D-07
22	0.826598D-06	-0.216889D-05	0.151309D-06	-0.124336D-06	0.179016D-06
23	-0.325075D-05	0.619866D-06	0.382993D-05	0.508353D-05	-0.190920D-06
24	0.296248D-05	0.447662D-05	0.266246D-05	0.325573D-05	0.966924D-05
25	-0.100940D-04	0.181364D-05	-0.165800D-05	-0.168209D-05	-0.309747D-05
26	0.259504D-05	-0.181110D-05	0.174352D-05	0.106581D-05	0.103167D-05
27	0.973378D-05	-0.643751D-05	0.647261D-05	-0.267488D-05	0.121936D-05
28	0.595145D-05	0.727748D-05	-0.354684D-05	-0.572042D-05	-0.136287D-05
29	-0.995455D-07	0.190720D-05	-0.148738D-05	-0.202536D-05	-0.119755D-04
30	0.194922D-04	0.103793D-04	-0.114404D-05	0.150500D-05	0.368070D-05
31	-0.463696D-05	0.902129D-06	0.859536D-07	-0.250820D-06	-0.105214D-05
32	-0.194058D-04	-0.995264D-05	-0.118598D-05	-0.262409D-05	-0.125540D-05
33	0.650397D-05	0.180490D-05	-0.800286D-06	-0.829096D-06	0.196994D-05
34	0.804872D-04	-0.419441D-04	0.132778D-04	-0.107722D-04	0.154753D-04
35	-0.965294D-05	-0.365667D-05	0.789783D-05	0.506875D-06	0.868812D-05
36	0.194074D-04	0.453117D-04	0.577775D-05	-0.568386D-05	0.110240D-05
37	-0.490794D-04	0.281582D-04	-0.279636D-05	0.346067D-05	0.200811D-05
38	0.580486D-05	-0.184323D-04	0.550297D-05	0.126015D-05	-0.168032D-05
39	0.429481D-04	0.467906D-06	-0.757767D-05	0.640708D-05	0.250274D-06
40	-0.104935D-03	0.931228D-04	0.125521D-05	0.612747D-06	-0.708848D-05
41	0.420923D-04	0.973569D-04	-0.322182D-05	0.582846D-05	0.167246D-04
42	-0.343333D-04	0.119707D-03	-0.116789D-04	-0.192692D-05	0.316417D-04
43	-0.151410D-03	0.152302D-03	0.131059D-04	-0.157815D-05	0.134817D-04
44	0.486118D-05	0.327662D-05	0.483416D-06	-0.177882D-05	0.296103D-05
45	-0.154958D-03	0.173593D-03	-0.116628D-04	0.287178D-04	0.319575D-04
46	-0.779028D-04	0.445306D-04	-0.377415D-05	0.620878D-05	0.555568D-05
47	-0.115001D-04	0.478085D-04	-0.922014D-05	0.137874D-05	0.597585D-05
48	-0.725812D-04	-0.287926D-04	-0.123406D-04	-0.164992D-05	0.395854D-05
49	-0.334065D-04	-0.791570D-05	-0.204554D-05	0.202031D-06	0.351868D-05
50	-0.569781D-04	-0.112148D-04	0.937502D-06	0.462768D-05	-0.136199D-05
51	0.635068D-04	0.304847D-04	-0.173071D-05	0.174008D-05	0.852159D-05
52	0.323486D-04	-0.471619D-05	0.675425D-06	0.335621D-05	0.157112D-05
53	-0.576059D-06	0.402828D-05	-0.573807D-05	-0.489357D-05	-0.304261D-06

54	0.238234D-04	0.233394D-04	-0.282742D-05	0.349707D-05	-0.162769D-05
55	0.900463D-05	0.115068D-05	-0.326110D-05	-0.317451D-05	0.302524D-05
56	0.495303D-06	-0.212113D-04	-0.723749D-06	-0.312655D-05	0.304869D-05
57	-0.185842D-05	-0.202966D-04	-0.133955D-05	0.148836D-05	0.202349D-05
58	0.137414D-04	0.288305D-07	0.122336D-05	0.285659D-05	0.808320D-07
59	-0.484154D-05	0.207227D-04	-0.491860D-05	-0.180572D-05	0.291949D-05
60	-0.193198D-03	0.911572D-04	0.115518D-04	0.208155D-05	0.232478D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.501353D-04				
17	0.125820D-04	0.615126D-04			
18	-0.129288D-04	-0.307166D-04	0.452962D-03		
19	-0.171387D-05	-0.104637D-05	0.172554D-06	0.516713D-05	
20	-0.343334D-06	-0.212109D-05	0.297934D-08	0.115921D-05	0.681695D-05
21	0.299299D-05	0.595454D-05	-0.938456D-05	-0.705981D-06	-0.179018D-05
22	-0.634501D-06	-0.290846D-06	0.175503D-05	0.492723D-06	0.180881D-05
23	-0.517561D-05	-0.145014D-05	0.186881D-05	0.332724D-05	0.819054D-06
24	-0.242358D-05	-0.525282D-05	0.226570D-05	0.103006D-05	0.448009D-05
25	0.100324D-04	0.192306D-04	-0.224874D-04	-0.313333D-06	-0.128383D-05
26	-0.102511D-05	-0.973530D-06	0.610251D-05	0.474543D-06	0.328110D-05
27	-0.385084D-06	-0.373088D-05	0.689738D-05	0.148259D-05	0.423685D-05
28	0.776101D-05	0.117875D-05	-0.901248D-06	-0.242955D-05	-0.732610D-06
29	0.131011D-05	0.100166D-04	-0.393371D-06	-0.260744D-06	-0.306874D-05
30	-0.696210D-05	-0.205743D-04	0.570979D-04	0.187998D-05	0.450484D-06
31	0.646427D-06	0.111046D-05	-0.139454D-05	-0.647145D-06	-0.287913D-05
32	0.744111D-06	0.187701D-05	-0.207919D-05	-0.893340D-07	-0.341253D-05
33	0.258762D-05	-0.466946D-05	0.349081D-05	0.200552D-05	0.283164D-05
34	-0.552871D-06	-0.347495D-04	0.526941D-05	0.408889D-06	-0.324240D-06
35	0.103455D-04	0.264014D-06	0.570254D-04	-0.504682D-06	-0.407078D-05
36	0.113793D-04	0.614625D-05	-0.212676D-04	-0.427857D-05	-0.433027D-05
37	-0.746534D-05	0.133910D-04	-0.971753D-05	0.932377D-07	-0.319811D-05
38	-0.231824D-05	-0.285446D-05	0.280900D-04	0.310956D-05	0.207224D-05
39	0.710155D-05	0.510163D-05	-0.274718D-04	0.354221D-06	0.266285D-06
40	0.155724D-04	0.617052D-05	0.182735D-04	-0.688603D-06	-0.135079D-05
41	-0.187592D-04	-0.709707D-05	0.648703D-04	0.942719D-06	0.375153D-05
42	-0.343740D-04	-0.526447D-04	0.693032D-04	0.487507D-05	0.184403D-04
43	-0.965729D-05	-0.182953D-05	-0.237393D-04	0.279904D-05	0.638240D-05
44	0.310181D-07	0.701839D-06	0.689967D-07	0.385370D-06	-0.178205D-06
45	0.221084D-04	0.326420D-04	-0.997229D-04	-0.426238D-05	-0.145423D-04
46	-0.500682D-05	-0.899805D-05	-0.191535D-04	-0.228780D-05	0.205679D-06
47	0.342592D-05	0.266529D-05	-0.391400D-04	-0.862135D-06	0.216265D-05

48	0.253351D-05	0.274357D-04	0.226289D-04	-0.546164D-05	-0.105206D-04
49	0.666962D-05	-0.511169D-06	0.115608D-04	0.296984D-05	0.611600D-06
50	-0.104192D-04	0.101059D-04	-0.373507D-04	0.279714D-06	-0.460215D-05
51	-0.644615D-05	-0.146963D-04	-0.752051D-04	0.280318D-05	0.457789D-05
52	-0.358706D-05	0.284269D-05	-0.147210D-04	-0.125007D-05	-0.110201D-05
53	0.294267D-05	0.909551D-05	0.307200D-04	-0.280125D-06	0.108033D-05
54	-0.616975D-05	-0.140549D-04	-0.405263D-04	0.784586D-06	0.333333D-05
55	-0.481844D-05	0.331754D-05	-0.239706D-04	-0.114773D-06	-0.674231D-06
56	-0.601996D-05	-0.333067D-05	-0.897983D-06	-0.483932D-06	0.956335D-06
57	-0.315178D-05	-0.599190D-05	0.711301D-05	0.182203D-05	0.213010D-07
58	0.146851D-05	0.577564D-05	-0.198718D-04	-0.166343D-05	-0.940299D-06
59	0.434779D-05	-0.275329D-05	0.167910D-05	-0.111643D-05	-0.691474D-06
60	-0.745479D-05	0.197448D-05	0.549057D-04	-0.505444D-06	0.404431D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.236565D-04				
22	-0.161312D-05	0.494037D-05			
23	-0.109618D-05	0.714934D-06	0.465861D-04		
24	-0.257910D-06	0.103292D-05	0.874309D-05	0.581022D-04	
25	0.152568D-04	-0.165901D-06	-0.568748D-05	-0.216946D-04	0.225303D-03
26	-0.139343D-05	0.361823D-05	0.180455D-05	0.883873D-05	-0.854355D-05
27	0.302220D-06	0.241413D-05	0.134714D-04	0.376316D-04	-0.428277D-04
28	0.194621D-06	-0.722004D-06	-0.886946D-05	-0.220248D-05	0.493238D-05
29	-0.508404D-06	-0.740288D-06	-0.115001D-06	-0.125495D-04	0.256509D-05
30	-0.890890D-05	0.116166D-05	0.252868D-05	0.155622D-05	-0.325706D-04
31	0.438941D-05	-0.259989D-05	-0.679197D-06	-0.270952D-05	0.289378D-05
32	0.280394D-05	-0.149199D-05	-0.604790D-05	-0.240629D-04	0.379997D-04
33	0.148494D-05	0.197045D-05	0.214935D-05	0.381031D-05	-0.470851D-05
34	0.361279D-04	-0.970087D-05	-0.426520D-04	-0.325700D-04	0.436437D-04
35	0.148054D-04	-0.527236D-06	0.758780D-05	-0.373960D-05	0.302247D-04
36	0.831913D-05	0.329277D-06	-0.136461D-04	0.606429D-05	-0.281514D-04
37	0.254186D-05	-0.783616D-05	-0.244896D-08	-0.222828D-04	0.480274D-04
38	-0.843258D-06	0.499705D-05	0.903350D-05	-0.132811D-05	0.154961D-04
39	0.131470D-05	0.165997D-05	0.683467D-06	-0.368251D-05	-0.251957D-04
40	-0.514635D-05	0.231429D-06	0.152523D-04	0.807984D-05	-0.138569D-04
41	0.801901D-05	0.662275D-05	0.300989D-05	0.797200D-05	-0.268123D-04
42	0.356854D-05	0.605261D-05	-0.101635D-06	0.288796D-04	0.193805D-04
43	0.973699D-05	0.906266D-05	-0.117260D-04	0.839016D-05	0.257072D-04
44	-0.194129D-05	-0.683747D-06	0.176271D-05	0.426965D-05	-0.628764D-05
45	0.276198D-04	0.154470D-04	-0.799249D-06	0.894229D-04	0.726955D-04
46	0.170807D-04	0.800399D-06	-0.174574D-04	0.203831D-04	-0.147442D-04



47	-0.119905D-05	-0.624096D-05	-0.781932D-05	0.126366D-04	-0.352581D-05
48	0.286981D-04	-0.117281D-06	-0.166926D-04	-0.176373D-04	-0.209157D-05
49	0.380026D-05	0.788198D-07	-0.346143D-05	0.889636D-05	-0.160357D-04
50	0.787894D-05	0.115722D-07	-0.372509D-05	-0.725789D-05	0.175191D-04
51	-0.187005D-04	0.508736D-05	0.899215D-05	0.190706D-05	-0.256640D-04
52	-0.635129D-05	0.152075D-05	0.139088D-05	-0.156931D-05	-0.108467D-04
53	-0.106165D-05	-0.164475D-05	0.351331D-05	-0.210958D-08	-0.136504D-04
54	-0.530419D-05	0.245217D-05	-0.308227D-05	0.295633D-05	0.525711D-05
55	0.477447D-05	-0.368833D-05	-0.349753D-05	-0.147602D-05	0.543790D-06
56	-0.124884D-05	-0.159701D-05	-0.347105D-05	-0.400971D-05	0.603304D-05
57	0.142715D-06	0.897760D-06	0.378037D-05	0.388376D-05	0.309545D-05
58	0.145407D-05	-0.352129D-06	-0.190128D-05	0.146492D-05	-0.405704D-05
59	-0.383058D-06	-0.763868D-06	-0.410312D-05	-0.157527D-05	-0.376638D-05
60	-0.977221D-06	0.280769D-05	0.116067D-04	0.130788D-04	-0.839920D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.237556D-04				
27	0.276116D-04	0.366922D-03			
28	-0.182775D-05	-0.294386D-05	0.389306D-04		
29	-0.201543D-05	-0.998732D-05	0.755156D-05	0.519836D-04	
30	0.585716D-07	0.122446D-04	-0.620679D-05	-0.143584D-04	0.169459D-03
31	-0.479001D-05	-0.465239D-05	0.181467D-05	0.727684D-05	-0.777224D-05
32	-0.127978D-04	-0.674775D-04	0.843125D-05	0.191087D-04	-0.178784D-04
33	0.396213D-05	0.105474D-04	-0.828168D-05	-0.372809D-04	0.573020D-04
34	-0.171846D-04	-0.397008D-04	0.737001D-05	0.210021D-04	-0.427536D-04
35	-0.185840D-05	0.326801D-04	0.121790D-04	0.125771D-04	-0.384912D-04
36	-0.637416D-05	0.603971D-04	0.333988D-05	-0.645104D-05	0.308265D-04
37	-0.774756D-05	-0.356180D-04	-0.103085D-04	0.140182D-05	-0.888844D-05
38	0.668375D-05	0.271537D-04	-0.402351D-05	0.338580D-05	0.100540D-04
39	0.720958D-05	0.246744D-04	-0.612803D-05	-0.160611D-05	0.138044D-05
40	-0.569776D-05	-0.146150D-03	0.114516D-04	0.465706D-04	-0.167937D-04
41	-0.203917D-05	0.873702D-05	0.391593D-05	-0.187102D-04	0.197241D-04
42	-0.427724D-05	0.183154D-04	0.172254D-05	-0.466922D-04	0.521415D-04
43	-0.175389D-04	-0.171896D-04	0.565875D-05	-0.499076D-04	0.229432D-04
44	0.141981D-05	-0.113702D-05	0.376334D-05	-0.131440D-05	-0.234109D-05
45	0.550756D-04	0.114964D-03	0.596035D-04	0.826365D-04	-0.175327D-03
46	0.276162D-05	-0.433000D-04	0.540659D-05	0.284969D-04	0.247757D-04
47	-0.253470D-05	0.228582D-05	0.894548D-05	0.338497D-05	-0.161719D-04
48	0.106498D-04	-0.176558D-04	0.830773D-05	0.202155D-04	-0.232295D-04
49	-0.285153D-05	0.541976D-05	-0.505618D-05	-0.596168D-05	0.181474D-04
50	-0.432996D-05	-0.174431D-05	-0.178502D-05	0.376608D-05	-0.421596D-04

51	0.312191D-05	0.410375D-04	0.816872D-05	-0.696286D-05	0.330217D-05
52	0.203783D-05	-0.142522D-04	-0.252799D-07	0.698856D-05	-0.119982D-04
53	0.200266D-05	-0.668312D-05	0.859046D-05	0.459127D-05	0.137204D-04
54	-0.148368D-05	0.225715D-04	0.133040D-05	-0.160578D-05	-0.812758D-05
55	-0.414024D-05	-0.992891D-05	0.327664D-05	0.858620D-05	-0.950312D-05
56	-0.208611D-05	0.111116D-04	0.635828D-05	-0.176899D-05	-0.925584D-05
57	0.331629D-05	0.291292D-05	-0.119299D-05	-0.177651D-05	-0.238315D-05
58	-0.385762D-05	-0.764407D-05	-0.950178D-06	0.122231D-05	-0.108090D-05
59	0.283414D-06	0.246401D-05	0.271467D-05	0.318191D-06	-0.740025D-06
60	-0.724953D-05	-0.634900D-04	0.206550D-04	0.105965D-04	0.245003D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.196283D-04				
32	0.146170D-04	0.166652D-03			
33	-0.177765D-04	-0.572014D-04	0.294404D-03		
34	0.250199D-04	0.628896D-04	-0.179003D-03	0.240284D-01	
35	0.655659D-05	-0.354365D-05	-0.847788D-04	0.296144D-02	0.447679D-02
36	0.114437D-04	-0.128500D-04	0.111328D-04	0.130777D-02	0.132858D-03
37	-0.299624D-05	0.300939D-07	0.141178D-04	0.782316D-03	-0.765087D-04
38	-0.551873D-05	0.856984D-05	-0.234117D-04	0.411784D-03	0.408213D-03
39	-0.374958D-05	-0.376034D-06	0.186348D-05	-0.131581D-03	-0.262888D-05
40	0.280421D-04	0.398389D-04	-0.335213D-04	0.116409D-03	-0.554407D-05
41	-0.875929D-05	-0.942923D-05	0.109314D-04	0.116790D-03	0.299526D-03
42	-0.731238D-05	-0.426133D-04	0.620307D-04	0.784026D-04	-0.884381D-04
43	-0.399288D-04	-0.158130D-04	0.543841D-04	0.420684D-03	-0.184047D-03
44	-0.122945D-05	-0.255170D-05	-0.759427D-05	-0.435391D-04	-0.713712D-05
45	0.159385D-04	-0.500263D-04	-0.101854D-03	-0.373590D-03	0.296968D-03
46	0.104129D-04	0.113924D-04	0.712524D-05	-0.247252D-03	-0.956278D-04
47	0.100755D-04	-0.824054D-05	0.896774D-05	-0.305811D-03	-0.888014D-06
48	-0.179647D-05	0.270156D-04	-0.288701D-04	0.233891D-03	-0.869224D-05
49	0.282938D-06	0.328899D-05	0.352146D-05	-0.403975D-04	-0.317374D-05
50	-0.797371D-05	0.130010D-04	-0.529247D-04	0.368488D-03	-0.450419D-04
51	0.122119D-04	-0.361431D-04	0.122866D-04	-0.713912D-03	-0.656460D-04
52	0.347159D-05	-0.108719D-04	0.664582D-06	-0.105789D-03	-0.443831D-04
53	-0.150114D-06	-0.153009D-04	0.299935D-04	-0.930733D-04	-0.258559D-04
54	0.132189D-05	0.993796D-05	-0.146479D-04	-0.263631D-03	-0.654795D-04
55	-0.211397D-05	0.545346D-05	0.152664D-04	0.920448D-04	-0.462870D-04
56	-0.865743D-06	0.155068D-04	-0.109820D-04	0.969609D-04	0.581724D-05
57	-0.847524D-06	0.120821D-04	0.113915D-04	-0.712560D-04	-0.107997D-04
58	0.466971D-05	0.247898D-05	-0.133756D-04	0.698411D-04	-0.189599D-04
59	-0.855812D-06	-0.250977D-05	-0.310757D-05	0.470284D-04	0.191808D-04

60 -0.166920D-06 -0.343248D-05 -0.125575D-04 0.187726D-03 0.114640D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.415354D-02				
37	-0.124051D-02	0.311549D-02			
38	-0.505641D-03	-0.224311D-03	0.138048D-02		
39	0.105745D-03	-0.467595D-04	-0.220870D-04	0.125081D-02	
40	0.254009D-04	0.167286D-03	-0.664828D-04	-0.794765D-03	0.558626D-02
41	-0.121969D-03	-0.562626D-04	0.727758D-04	-0.580962D-03	-0.514511D-03
42	-0.131475D-03	-0.130945D-03	0.931840D-04	-0.108674D-02	0.374404D-03
43	-0.109241D-03	-0.589050D-04	0.141487D-04	-0.731766D-03	-0.124149D-02
44	-0.794006D-05	-0.193841D-04	-0.134452D-04	-0.605827D-04	0.822081D-04
45	0.281251D-03	-0.505211D-03	-0.985313D-04	-0.185358D-04	-0.203693D-03
46	-0.155671D-05	0.165396D-03	-0.412241D-04	0.144609D-03	-0.102106D-03
47	-0.288469D-05	-0.633942D-04	-0.889185D-04	0.652428D-04	-0.105263D-03
48	-0.193170D-05	-0.111794D-03	0.833968D-04	0.406663D-04	-0.486119D-04
49	0.801430D-04	-0.255442D-04	-0.202999D-04	0.313872D-04	-0.426837D-04
50	-0.625801D-04	0.919342D-05	0.495855D-04	0.393091D-04	0.228573D-05
51	0.110457D-04	-0.134965D-03	0.287450D-04	-0.546555D-04	0.410624D-05
52	-0.647410D-04	0.307688D-04	0.175072D-04	0.422728D-04	-0.279850D-04
53	0.476173D-04	-0.400864D-05	-0.209266D-04	0.395241D-04	0.951655D-05
54	-0.927373D-04	-0.232418D-04	0.740271D-05	-0.401437D-04	-0.393931D-04
55	-0.320740D-05	0.166914D-03	-0.191582D-04	0.126373D-04	0.971676D-04
56	-0.202052D-04	-0.828726D-05	0.128533D-04	-0.782103D-05	-0.374588D-04
57	-0.120539D-04	0.241818D-05	0.158711D-04	-0.154816D-04	0.349310D-05
58	0.363282D-04	0.153150D-04	-0.119011D-04	0.533029D-05	0.526514D-04
59	0.469278D-05	-0.278416D-04	-0.873100D-05	-0.281148D-05	-0.424500D-05
60	-0.117406D-03	0.146620D-03	0.256575D-04	-0.120896D-02	0.333599D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.601049D-02				
42	0.300689D-02	0.107447D-01			
43	0.330203D-02	0.379795D-02	0.130521D-01		
44	0.407547D-04	0.365119D-04	0.547369D-04	0.149294D-03	
45	-0.883865D-03	-0.218054D-03	-0.823549D-03	-0.779983D-04	0.699547D-01
46	-0.184109D-03	-0.324713D-03	-0.205640D-03	-0.295624D-04	0.767515D-02
47	-0.104980D-03	-0.122561D-03	-0.289791D-03	-0.267505D-04	0.821166D-03
48	-0.245653D-03	0.277685D-03	0.157055D-04	-0.213206D-04	0.483236D-02

49	-0.110722D-03	0.113088D-03	-0.632296D-04	-0.129623D-04	0.286439D-03
50	-0.352757D-04	0.661676D-04	0.108226D-03	-0.172100D-04	0.106837D-02
51	0.210668D-03	0.182640D-03	0.304844D-03	0.631224D-05	0.221835D-02
52	0.246313D-04	-0.986766D-04	0.160544D-04	0.111036D-04	0.418005D-03
53	-0.162204D-04	-0.323957D-04	0.506131D-04	0.145267D-05	-0.198548D-03
54	0.571454D-04	0.851253D-04	0.246785D-04	-0.418139D-05	0.529138D-03
55	0.325391D-04	-0.165395D-03	-0.625066D-04	0.727554D-05	0.843772D-03
56	-0.322947D-04	-0.429035D-04	0.585757D-04	-0.160114D-04	0.166716D-03
57	0.149416D-04	-0.735094D-04	-0.143539D-03	0.115829D-04	-0.147826D-03
58	-0.428820D-04	0.263101D-04	-0.240953D-04	-0.102436D-05	0.717280D-04
59	-0.224658D-04	-0.509574D-05	0.387096D-05	-0.323759D-05	0.298082D-03
60	0.279415D-02	0.345841D-02	0.255194D-02	0.154863D-03	-0.515232D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.744585D-02				
47	0.157128D-02	0.278260D-02			
48	0.429151D-03	0.106525D-04	0.658014D-02		
49	0.293255D-03	0.230705D-05	0.758473D-03	0.118552D-02	
50	0.499292D-04	0.121254D-03	0.951561D-03	0.637911D-04	0.246695D-02
51	-0.186907D-03	-0.719436D-04	-0.179940D-02	-0.311265D-03	-0.307797D-03
52	0.264416D-03	0.387533D-05	-0.164601D-03	-0.394221D-03	-0.786237D-04
53	-0.128928D-04	-0.243410D-04	0.192944D-03	-0.108445D-04	-0.670086D-03
54	-0.443593D-04	0.671892D-04	-0.215502D-03	-0.463930D-04	0.281068D-03
55	0.626796D-03	0.132724D-03	-0.735782D-03	-0.779833D-04	-0.139442D-03
56	0.132571D-03	0.206767D-03	-0.390608D-04	-0.134121D-03	-0.418735D-04
57	0.915228D-05	-0.479837D-04	-0.782774D-04	0.597953D-04	-0.304456D-03
58	0.463563D-04	0.122062D-04	-0.790125D-04	-0.312960D-04	0.533470D-04
59	0.349290D-04	0.614467D-04	0.976472D-04	-0.212698D-05	0.628007D-04
60	-0.161237D-03	-0.196088D-03	-0.994598D-04	-0.102718D-03	-0.193045D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.430847D-02				
52	0.514924D-03	0.872951D-03			
53	0.201060D-03	0.749717D-04	0.866946D-03		
54	0.464193D-03	-0.371693D-04	-0.418813D-03	0.108489D-02	
55	-0.277380D-03	-0.577755D-04	-0.555282D-04	-0.527998D-04	0.223314D-02
56	0.201608D-04	-0.367986D-04	0.121040D-04	0.661978D-05	0.269717D-03
57	-0.533008D-04	-0.330280D-04	-0.543514D-05	0.141961D-04	0.176225D-03

58	0.584556D-04	0.526827D-04	-0.753019D-04	-0.107035D-03	0.108534D-03
59	-0.115848D-05	-0.742258D-05	0.253538D-06	0.260036D-04	0.261895D-04
60	0.146822D-03	-0.312444D-04	0.383626D-04	-0.708430D-06	0.530320D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.408200D-03				
57	0.258230D-04	0.422437D-03			
58	0.663053D-06	-0.105285D-03	0.271171D-03		
59	0.588871D-04	-0.925815D-04	-0.320514D-04	0.256532D-03	
60	-0.214291D-04	-0.209148D-04	0.343031D-04	0.434008D-05	0.545919D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.169	1.000			
3	-0.036	-0.126	1.000		
4	0.051	0.136	-0.044	1.000	
5	0.060	0.155	-0.074	0.223	1.000
6	-0.105	-0.192	0.114	-0.146	-0.187
7	-0.004	-0.004	0.017	-0.018	0.008
8	-0.038	-0.018	-0.018	0.012	-0.021
9	-0.007	0.026	-0.009	0.021	-0.008
10	0.012	-0.034	0.068	0.013	-0.020
11	0.007	0.023	-0.011	-0.012	0.024
12	-0.007	-0.016	-0.028	0.003	-0.008
13	-0.007	0.016	0.036	-0.003	-0.010
14	0.015	0.054	-0.035	0.005	-0.007
15	-0.012	-0.004	-0.047	0.001	0.026
16	-0.043	0.003	-0.029	-0.022	0.008
17	-0.032	0.030	0.019	-0.017	0.029
18	0.025	-0.019	0.013	-0.040	0.018
19	0.006	-0.011	-0.061	0.002	0.018
20	0.012	-0.030	-0.004	0.000	-0.026
21	0.055	-0.014	-0.039	0.014	0.033
22	-0.051	0.020	0.010	0.000	0.044
23	0.041	-0.017	-0.004	0.023	-0.002
24	-0.036	-0.032	-0.012	0.005	-0.006
25	-0.002	0.000	0.006	0.018	-0.006
26	0.003	-0.056	0.036	-0.028	0.014

27	-0.028	-0.048	0.002	-0.006	0.033
28	-0.011	0.000	0.019	0.000	0.023
29	-0.013	0.023	0.026	-0.018	-0.036
30	0.025	0.021	0.011	0.019	0.002
31	-0.009	-0.001	0.022	0.032	-0.055
32	0.029	0.029	0.001	0.020	0.034
33	0.022	-0.031	-0.006	-0.018	-0.001
34	0.006	-0.021	-0.001	-0.016	-0.009
35	-0.006	0.005	-0.012	0.026	0.038
36	-0.046	0.025	0.037	0.008	0.027
37	0.002	-0.022	0.020	-0.041	-0.051
38	0.016	0.020	-0.003	-0.013	0.029
39	0.007	0.023	0.001	-0.019	-0.036
40	0.006	-0.005	0.041	0.023	-0.010
41	-0.006	-0.034	0.007	-0.016	0.005
42	0.018	-0.015	-0.013	0.002	-0.010
43	-0.026	-0.029	-0.014	0.017	-0.004
44	0.018	-0.029	-0.034	0.015	0.039
45	-0.031	-0.006	-0.015	0.024	0.001
46	0.003	-0.011	-0.027	0.037	0.004
47	0.016	0.068	-0.031	0.023	-0.011
48	-0.016	0.020	0.010	0.009	0.008
49	0.007	-0.042	-0.017	-0.024	-0.008
50	0.027	0.050	-0.009	0.020	-0.019
51	-0.006	0.021	-0.021	0.007	0.013
52	0.014	0.019	-0.015	-0.027	0.009
53	-0.006	-0.058	-0.024	0.003	0.007
54	0.036	0.031	0.019	0.003	-0.019
55	0.050	0.021	0.017	0.043	-0.008
56	0.022	-0.003	0.049	0.062	-0.021
57	-0.015	-0.010	0.026	0.000	0.028
58	0.013	-0.030	0.017	0.000	0.004
59	0.016	0.017	-0.058	0.034	-0.041
60	0.015	-0.043	0.019	0.011	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.002	1.000			
8	-0.015	-0.117	1.000		
9	0.009	-0.021	0.047	1.000	
10	0.015	-0.008	-0.159	0.050	1.000

11	-0.005	-0.074	-0.107	0.040	-0.210
12	0.016	-0.023	0.168	-0.132	0.060
13	0.004	-0.026	-0.005	-0.028	0.016
14	-0.020	-0.032	-0.012	0.012	0.003
15	-0.033	0.013	0.030	0.050	0.001
16	0.039	0.014	-0.026	0.012	0.012
17	-0.024	0.013	0.000	0.018	0.033
18	-0.011	0.037	-0.046	-0.008	0.001
19	-0.051	-0.023	-0.002	0.029	-0.004
20	-0.046	-0.020	0.036	0.026	0.012
21	0.034	0.000	0.019	0.000	0.011
22	0.002	0.008	-0.011	-0.033	0.014
23	-0.035	-0.015	0.002	-0.017	-0.045
24	-0.012	0.020	0.018	0.035	0.007
25	0.040	0.005	0.021	-0.019	-0.050
26	0.026	-0.001	0.015	-0.023	0.000
27	-0.016	0.041	0.022	0.037	-0.033
28	0.002	0.048	0.024	0.003	-0.005
29	0.009	0.004	-0.028	0.004	-0.019
30	-0.031	-0.029	-0.005	-0.029	-0.042
31	0.020	-0.027	-0.007	-0.010	0.009
32	-0.029	-0.001	-0.020	-0.037	0.036
33	0.031	-0.021	0.031	-0.046	-0.004
34	-0.001	-0.005	0.034	0.013	-0.022
35	-0.018	0.008	-0.022	0.073	0.004
36	0.012	-0.001	-0.017	-0.002	-0.002
37	-0.009	0.028	0.029	-0.061	-0.016
38	0.010	-0.011	0.001	-0.013	-0.012
39	-0.007	-0.001	-0.012	-0.012	-0.003
40	-0.012	0.054	0.012	-0.016	0.006
41	0.004	0.024	0.029	0.069	-0.006
42	0.008	0.000	0.012	-0.041	0.009
43	-0.002	0.006	0.045	0.042	-0.001
44	-0.062	0.031	-0.008	-0.011	0.006
45	0.007	-0.001	0.039	-0.028	0.009
46	0.037	-0.023	-0.018	0.004	0.040
47	-0.006	-0.033	0.018	0.019	0.010
48	0.002	0.014	0.000	-0.033	0.011
49	0.026	0.011	-0.007	0.016	-0.038
50	0.019	0.008	0.036	-0.020	0.028
51	0.010	0.035	-0.022	0.002	-0.016
52	0.032	0.017	-0.054	0.025	-0.002
53	-0.009	-0.016	-0.038	0.039	-0.008
54	0.035	0.013	0.019	-0.032	0.004

55	-0.015	0.005	0.024	-0.004	-0.002
56	-0.042	0.034	0.019	0.028	0.039
57	-0.051	0.018	0.033	0.020	-0.033
58	0.002	-0.002	-0.028	-0.007	0.031
59	0.002	0.035	-0.005	-0.024	0.012
60	-0.018	0.214	0.035	-0.003	0.132

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	1.000				
12	0.142	1.000			
13	-0.013	-0.035	1.000		
14	0.019	0.027	0.308	1.000	
15	-0.003	-0.005	0.065	0.258	1.000
16	-0.038	0.001	-0.099	-0.167	-0.077
17	-0.067	-0.006	0.009	-0.101	-0.212
18	0.034	0.028	-0.003	0.010	0.052
19	-0.035	-0.066	0.092	0.223	0.052
20	-0.004	-0.018	0.030	0.070	0.270
21	-0.008	0.015	-0.001	-0.035	0.001
22	0.014	-0.035	0.015	-0.015	0.014
23	-0.018	0.003	0.120	0.198	-0.005
24	0.015	0.021	0.075	0.114	0.222
25	-0.026	0.004	-0.024	-0.030	-0.036
26	0.020	-0.013	0.077	0.058	0.037
27	0.019	-0.012	0.072	-0.037	0.011
28	0.036	0.042	-0.122	-0.244	-0.038
29	-0.001	0.009	-0.044	-0.075	-0.291
30	0.057	0.029	-0.019	0.031	0.050
31	-0.040	0.007	0.004	-0.015	-0.042
32	-0.057	-0.028	-0.020	-0.054	-0.017
33	0.014	0.004	-0.010	-0.013	0.020
34	0.020	-0.010	0.018	-0.019	0.017
35	-0.005	-0.002	0.025	0.002	0.023
36	0.011	0.025	0.019	-0.023	0.003
37	-0.033	0.018	-0.011	0.017	0.006
38	0.006	-0.018	0.032	0.009	-0.008
39	0.046	0.000	-0.046	0.048	0.001
40	-0.053	0.045	0.004	0.002	-0.017
41	0.021	0.045	-0.009	0.020	0.038
42	-0.013	0.041	-0.024	-0.005	0.053
43	-0.050	0.048	0.025	-0.004	0.021



44	0.015	0.010	0.008	-0.039	0.042
45	-0.022	0.024	-0.009	0.029	0.021
46	-0.034	0.018	-0.009	0.019	0.011
47	-0.008	0.032	-0.037	0.007	0.020
48	-0.034	-0.013	-0.033	-0.005	0.009
49	-0.037	-0.008	-0.013	0.002	0.018
50	-0.044	-0.008	0.004	0.025	-0.005
51	0.037	0.017	-0.006	0.007	0.023
52	0.042	-0.006	0.005	0.030	0.009
53	-0.001	0.005	-0.042	-0.044	-0.002
54	0.028	0.025	-0.018	0.028	-0.009
55	0.007	0.001	-0.015	-0.018	0.011
56	0.001	-0.038	-0.008	-0.041	0.026
57	-0.003	-0.035	-0.014	0.019	0.017
58	0.032	0.000	0.016	0.046	0.001
59	-0.012	0.046	-0.066	-0.030	0.032
60	-0.100	0.044	0.034	0.008	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.227	1.000			
18	-0.086	-0.184	1.000		
19	-0.106	-0.059	0.004	1.000	
20	-0.019	-0.104	0.000	0.195	1.000
21	0.087	0.156	-0.091	-0.064	-0.141
22	-0.040	-0.017	0.037	0.098	0.312
23	-0.107	-0.027	0.013	0.214	0.046
24	-0.045	-0.088	0.014	0.059	0.225
25	0.094	0.163	-0.070	-0.009	-0.033
26	-0.030	-0.025	0.059	0.043	0.258
27	-0.003	-0.025	0.017	0.034	0.085
28	0.176	0.024	-0.007	-0.171	-0.045
29	0.026	0.177	-0.003	-0.016	-0.163
30	-0.076	-0.202	0.206	0.064	0.013
31	0.021	0.032	-0.015	-0.064	-0.249
32	0.008	0.019	-0.008	-0.003	-0.101
33	0.021	-0.035	0.010	0.051	0.063
34	-0.001	-0.029	0.002	0.001	-0.001
35	0.022	0.001	0.040	-0.003	-0.023
36	0.025	0.012	-0.016	-0.029	-0.026
37	-0.019	0.031	-0.008	0.001	-0.022

38	-0.009	-0.010	0.036	0.037	0.021
39	0.028	0.018	-0.036	0.004	0.003
40	0.029	0.011	0.011	-0.004	-0.007
41	-0.034	-0.012	0.039	0.005	0.019
42	-0.047	-0.065	0.031	0.021	0.068
43	-0.012	-0.002	-0.010	0.011	0.021
44	0.000	0.007	0.000	0.014	-0.006
45	0.012	0.016	-0.018	-0.007	-0.021
46	-0.008	-0.013	-0.010	-0.012	0.001
47	0.009	0.006	-0.035	-0.007	0.016
48	0.004	0.043	0.013	-0.030	-0.050
49	0.027	-0.002	0.016	0.038	0.007
50	-0.030	0.026	-0.035	0.002	-0.035
51	-0.014	-0.029	-0.054	0.019	0.027
52	-0.017	0.012	-0.023	-0.019	-0.014
53	0.014	0.039	0.049	-0.004	0.014
54	-0.026	-0.054	-0.058	0.010	0.039
55	-0.014	0.009	-0.024	-0.001	-0.005
56	-0.042	-0.021	-0.002	-0.011	0.018
57	-0.022	-0.037	0.016	0.039	0.000
58	0.013	0.045	-0.057	-0.044	-0.022
59	0.038	-0.022	0.005	-0.031	-0.017
60	-0.014	0.003	0.035	-0.003	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	1.000				
22	-0.149	1.000			
23	-0.033	0.047	1.000		
24	-0.007	0.061	0.168	1.000	
25	0.209	-0.005	-0.056	-0.190	1.000
26	-0.059	0.334	0.054	0.238	-0.117
27	0.003	0.057	0.103	0.258	-0.149
28	0.006	-0.052	-0.208	-0.046	0.053
29	-0.014	-0.046	-0.002	-0.228	0.024
30	-0.141	0.040	0.028	0.016	-0.167
31	0.204	-0.264	-0.022	-0.080	0.044
32	0.045	-0.052	-0.069	-0.245	0.196
33	0.018	0.052	0.018	0.029	-0.018
34	0.048	-0.028	-0.040	-0.028	0.019
35	0.045	-0.004	0.017	-0.007	0.030
36	0.027	0.002	-0.031	0.012	-0.029

37	0.009	-0.063	0.000	-0.052	0.057
38	-0.005	0.061	0.036	-0.005	0.028
39	0.008	0.021	0.003	-0.014	-0.047
40	-0.014	0.001	0.030	0.014	-0.012
41	0.021	0.038	0.006	0.013	-0.023
42	0.007	0.026	0.000	0.037	0.012
43	0.018	0.036	-0.015	0.010	0.015
44	-0.033	-0.025	0.021	0.046	-0.034
45	0.021	0.026	0.000	0.044	0.018
46	0.041	0.004	-0.030	0.031	-0.011
47	-0.005	-0.053	-0.022	0.031	-0.004
48	0.073	-0.001	-0.030	-0.029	-0.002
49	0.023	0.001	-0.015	0.034	-0.031
50	0.033	0.000	-0.011	-0.019	0.023
51	-0.059	0.035	0.020	0.004	-0.026
52	-0.044	0.023	0.007	-0.007	-0.024
53	-0.007	-0.025	0.017	0.000	-0.031
54	-0.033	0.033	-0.014	0.012	0.011
55	0.021	-0.035	-0.011	-0.004	0.001
56	-0.013	-0.036	-0.025	-0.026	0.020
57	0.001	0.020	0.027	0.025	0.010
58	0.018	-0.010	-0.017	0.012	-0.016
59	-0.005	-0.021	-0.038	-0.013	-0.016
60	-0.003	0.017	0.023	0.023	-0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.296	1.000			
28	-0.060	-0.025	1.000		
29	-0.057	-0.072	0.168	1.000	
30	0.001	0.049	-0.076	-0.153	1.000
31	-0.222	-0.055	0.066	0.228	-0.135
32	-0.203	-0.273	0.105	0.205	-0.106
33	0.047	0.032	-0.077	-0.301	0.257
34	-0.023	-0.013	0.008	0.019	-0.021
35	-0.006	0.025	0.029	0.026	-0.044
36	-0.020	0.049	0.008	-0.014	0.037
37	-0.028	-0.033	-0.030	0.003	-0.012
38	0.037	0.038	-0.017	0.013	0.021
39	0.042	0.036	-0.028	-0.006	0.003
40	-0.016	-0.102	0.025	0.086	-0.017

41	-0.005	0.006	0.008	-0.033	0.020
42	-0.008	0.009	0.003	-0.062	0.039
43	-0.031	-0.008	0.008	-0.061	0.015
44	0.024	-0.005	0.049	-0.015	-0.015
45	0.043	0.023	0.036	0.043	-0.051
46	0.007	-0.026	0.010	0.046	0.022
47	-0.010	0.002	0.027	0.009	-0.024
48	0.027	-0.011	0.016	0.035	-0.022
49	-0.017	0.008	-0.024	-0.024	0.040
50	-0.018	-0.002	-0.006	0.011	-0.065
51	0.010	0.033	0.020	-0.015	0.004
52	0.014	-0.025	0.000	0.033	-0.031
53	0.014	-0.012	0.047	0.022	0.036
54	-0.009	0.036	0.006	-0.007	-0.019
55	-0.018	-0.011	0.011	0.025	-0.015
56	-0.021	0.029	0.050	-0.012	-0.035
57	0.033	0.007	-0.009	-0.012	-0.009
58	-0.048	-0.024	-0.009	0.010	-0.005
59	0.004	0.008	0.027	0.003	-0.004
60	-0.020	-0.045	0.045	0.020	0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	1.000				
32	0.256	1.000			
33	-0.234	-0.258	1.000		
34	0.036	0.031	-0.067	1.000	
35	0.022	-0.004	-0.074	0.286	1.000
36	0.040	-0.015	0.010	0.131	0.031
37	-0.012	0.000	0.015	0.090	-0.020
38	-0.034	0.018	-0.037	0.071	0.164
39	-0.024	-0.001	0.003	-0.024	-0.001
40	0.085	0.041	-0.026	0.010	-0.001
41	-0.026	-0.009	0.008	0.010	0.058
42	-0.016	-0.032	0.035	0.005	-0.013
43	-0.079	-0.011	0.028	0.024	-0.024
44	-0.023	-0.016	-0.036	-0.023	-0.009
45	0.014	-0.015	-0.022	-0.009	0.017
46	0.027	0.010	0.005	-0.018	-0.017
47	0.043	-0.012	0.010	-0.037	0.000
48	-0.005	0.026	-0.021	0.019	-0.002
49	0.002	0.007	0.006	-0.008	-0.001

50	-0.036	0.020	-0.062	0.048	-0.014
51	0.042	-0.043	0.011	-0.070	-0.015
52	0.027	-0.029	0.001	-0.023	-0.022
53	-0.001	-0.040	0.059	-0.020	-0.013
54	0.009	0.023	-0.026	-0.052	-0.030
55	-0.010	0.009	0.019	0.013	-0.015
56	-0.010	0.059	-0.032	0.031	0.004
57	-0.009	0.046	0.032	-0.022	-0.008
58	0.064	0.012	-0.047	0.027	-0.017
59	-0.012	-0.012	-0.011	0.019	0.018
60	-0.001	-0.004	-0.010	0.016	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.345	1.000			
38	-0.211	-0.108	1.000		
39	0.046	-0.024	-0.017	1.000	
40	0.005	0.040	-0.024	-0.301	1.000
41	-0.024	-0.013	0.025	-0.212	-0.089
42	-0.020	-0.023	0.024	-0.296	0.048
43	-0.015	-0.009	0.003	-0.181	-0.145
44	-0.010	-0.028	-0.030	-0.140	0.090
45	0.016	-0.034	-0.010	-0.002	-0.010
46	0.000	0.034	-0.013	0.047	-0.016
47	-0.001	-0.022	-0.045	0.035	-0.027
48	0.000	-0.025	0.028	0.014	-0.008
49	0.036	-0.013	-0.016	0.026	-0.017
50	-0.020	0.003	0.027	0.022	0.001
51	0.003	-0.037	0.012	-0.024	0.001
52	-0.034	0.019	0.016	0.040	-0.013
53	0.025	-0.002	-0.019	0.038	0.004
54	-0.044	-0.013	0.006	-0.034	-0.016
55	-0.001	0.063	-0.011	0.008	0.028
56	-0.016	-0.007	0.017	-0.011	-0.025
57	-0.009	0.002	0.021	-0.021	0.002
58	0.034	0.017	-0.019	0.009	0.043
59	0.005	-0.031	-0.015	-0.005	-0.004
60	-0.025	0.036	0.009	-0.463	0.604

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.374	1.000			
43	0.373	0.321	1.000		
44	0.043	0.029	0.039	1.000	
45	-0.043	-0.008	-0.027	-0.024	1.000
46	-0.028	-0.036	-0.021	-0.028	0.336
47	-0.026	-0.022	-0.048	-0.042	0.059
48	-0.039	0.033	0.002	-0.022	0.225
49	-0.041	0.032	-0.016	-0.031	0.031
50	-0.009	0.013	0.019	-0.028	0.081
51	0.041	0.027	0.041	0.008	0.128
52	0.011	-0.032	0.005	0.031	0.053
53	-0.007	-0.011	0.015	0.004	-0.025
54	0.022	0.025	0.007	-0.010	0.061
55	0.009	-0.034	-0.012	0.013	0.068
56	-0.021	-0.020	0.025	-0.065	0.031
57	0.009	-0.035	-0.061	0.046	-0.027
58	-0.034	0.015	-0.013	-0.005	0.016
59	-0.018	-0.003	0.002	-0.017	0.070
60	0.488	0.452	0.302	0.172	-0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	0.345	1.000			
48	0.061	0.002	1.000		
49	0.099	0.001	0.272	1.000	
50	0.012	0.046	0.236	0.037	1.000
51	-0.033	-0.021	-0.338	-0.138	-0.094
52	0.104	0.002	-0.069	-0.388	-0.054
53	-0.005	-0.016	0.081	-0.011	-0.458
54	-0.016	0.039	-0.081	-0.041	0.172
55	0.154	0.053	-0.192	-0.048	-0.059
56	0.076	0.194	-0.024	-0.193	-0.042
57	0.005	-0.044	-0.047	0.084	-0.298
58	0.033	0.014	-0.059	-0.055	0.065
59	0.025	0.073	0.075	-0.004	0.079
60	-0.025	-0.050	-0.017	-0.040	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	51	52	53	54	55
51	1.000				
52	0.266	1.000			
53	0.104	0.086	1.000		
54	0.215	-0.038	-0.432	1.000	
55	-0.089	-0.041	-0.040	-0.034	1.000
56	0.015	-0.062	0.020	0.010	0.282
57	-0.040	-0.054	-0.009	0.021	0.181
58	0.054	0.108	-0.155	-0.197	0.139
59	-0.001	-0.016	0.001	0.049	0.035
60	0.030	-0.014	0.018	0.000	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	1.000				
57	0.062	1.000			
58	0.002	-0.311	1.000		
59	0.182	-0.281	-0.122	1.000	
60	-0.014	-0.014	0.028	0.004	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.014	44
200	1.022	44
300	1.007	49
400	1.006	52
500	1.004	44
600	1.001	18
700	1.002	32

800	1.003	60
900	1.002	32
1000	1.002	32



This is the model for reduced psychological distress - linear effects only

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	1.000				
PRAFAC	1.000	1.000			
SIZCAT	1.000	1.000	1.000		
FINPRO	1.000	1.000	1.000	1.000	
KNOW	1.000	1.000	1.000	1.000	1.000
MANU	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	MANU	PHY15	KES15	CHOICE15	BULLY15
MANU	1.000				
PHY15	1.000	1.000			
KES15	1.000	1.000	1.000		
CHOICE15	0.990	0.990	0.990	0.990	
BULLY15	0.990	0.990	0.990	0.989	0.990
PRESS15	0.990	0.990	0.990	0.989	0.989
DUTIES15	0.991	0.991	0.991	0.990	0.990

	Covariance Coverage	
	PRESS15	DUTIES15
PRESS15	0.990	
DUTIES15	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16  
 Category 1    0.347        386.000

Category 2      0.653              727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
SIZCAT	0.483	0.069	0.000	51.72%	0.000	0.000	0.000
58.000	0.250	-1.995	1.000	48.28%	1.000	1.000	
FINPRO	0.379	0.497	0.000	62.07%	0.000	0.000	0.000
58.000	0.235	-1.753	1.000	37.93%	0.000	1.000	
KNOW	0.190	1.583	0.000	81.03%	0.000	0.000	0.000
58.000	0.154	0.507	1.000	18.97%	0.000	0.000	
MANU	0.069	3.402	0.000	93.10%	0.000	0.000	0.000
58.000	0.064	9.574	1.000	6.90%	0.000	0.000	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15	0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15	0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15	0.280	0.978	0.000	71.96%	0.000	0.000	0.000
1102.000	0.202	-1.044	1.000	28.04%	0.000	1.000	
PRESS15	0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15	0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

MODEL FIT INFORMATION

Number of Free Parameters

60

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-33.250

33.485

Posterior Predictive P-Value

0.451

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.162	0.050	0.001	0.066	0.257	*
CHOICE15	0.029	0.040	0.239	-0.052	0.101	
BULLY15	0.119	0.094	0.109	-0.073	0.297	
DUTIES15	-0.086	0.044	0.025	-0.171	0.000	
PRESS15	-0.045	0.040	0.137	-0.121	0.032	
KES15	0.800	0.091	0.000	0.625	0.987	*
KES15 WITH						
PHY15	0.107	0.015	0.000	0.079	0.137	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.059	*
BULLY15	0.028	0.008	0.000	0.014	0.043	*
PRESS15	0.062	0.018	0.001	0.027	0.101	*
DUTIES15	-0.072	0.017	0.000	-0.109	-0.041	*
PHY15 WITH						
CHOICE15	-0.097	0.028	0.001	-0.150	-0.043	*
BULLY15	0.020	0.012	0.035	-0.002	0.043	
PRESS15	0.118	0.027	0.000	0.063	0.174	*
DUTIES15	-0.057	0.026	0.012	-0.112	-0.008	*
CHOICE15 WITH						
BULLY15	-0.059	0.015	0.000	-0.090	-0.032	*

PRESS15	-0.194	0.036	0.000	-0.266	-0.126	*
DUTIES15	0.148	0.034	0.000	0.081	0.222	*
BULLY15 WITH						
PRESS15	0.116	0.015	0.000	0.087	0.144	*
DUTIES15	-0.087	0.014	0.000	-0.113	-0.060	*
PRESS15 WITH						
DUTIES15	-0.287	0.035	0.000	-0.357	-0.219	*
Means						
PHY15	0.001	0.025	0.486	-0.049	0.050	
KES15	0.001	0.016	0.479	-0.029	0.031	
CHOICE15	-0.001	0.034	0.493	-0.067	0.064	
BULLY15	0.280	0.013	0.000	0.254	0.308	*
PRESS15	0.001	0.034	0.494	-0.065	0.069	
DUTIES15	0.000	0.031	0.497	-0.062	0.059	
Variances						
PHY15	0.703	0.029	0.000	0.645	0.762	*
KES15	0.314	0.013	0.000	0.291	0.342	*
CHOICE15	1.194	0.051	0.000	1.101	1.294	*
BULLY15	0.202	0.009	0.000	0.186	0.220	*
PRESS15	1.159	0.050	0.000	1.068	1.263	*
DUTIES15	1.031	0.044	0.000	0.951	1.127	*
Between Level						
KESCAT16 ON						
PRAFAC	-0.131	0.059	0.013	-0.247	-0.018	*
SIZCAT	0.045	0.126	0.343	-0.203	0.286	
FINPRO	0.109	0.131	0.199	-0.145	0.369	
KNOW	-0.045	0.192	0.411	-0.414	0.330	
MANU	0.070	0.193	0.337	-0.323	0.441	
PRAFAC WITH						
SIZCAT	0.151	0.081	0.019	0.007	0.328	*
FINPRO	0.091	0.080	0.116	-0.059	0.253	
KNOW	0.062	0.067	0.154	-0.054	0.208	
MANU	0.014	0.046	0.381	-0.075	0.108	
SIZCAT WITH						
FINPRO	0.005	0.035	0.428	-0.062	0.075	
KNOW	-0.005	0.029	0.430	-0.064	0.051	

MANU	0.019	0.020	0.153	-0.018	0.062	
FINPRO WITH						
KNOW	-0.071	0.032	0.006	-0.146	-0.017	*
MANU	-0.026	0.020	0.070	-0.069	0.011	
KNOW WITH						
MANU	-0.012	0.016	0.209	-0.046	0.017	
Means						
PRAFAC	-0.183	0.155	0.109	-0.498	0.113	
SIZCAT	0.483	0.069	0.000	0.342	0.614	*
FINPRO	0.378	0.068	0.000	0.253	0.512	*
KNOW	0.191	0.054	0.000	0.087	0.299	*
MANU	0.069	0.039	0.035	-0.004	0.146	
Thresholds						
KESCAT16\$1	-0.333	0.128	0.003	-0.594	-0.083	*
Variances						
PRAFAC	1.359	0.258	0.000	0.976	1.986	*
SIZCAT	0.265	0.051	0.000	0.189	0.385	*
FINPRO	0.253	0.051	0.000	0.180	0.388	*
KNOW	0.170	0.034	0.000	0.121	0.251	*
MANU	0.081	0.016	0.000	0.057	0.121	*
Residual Variances						
KESCAT16	0.031	0.042	0.000	0.001	0.160	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
PHY15		0.120	0.037	0.001	0.050	0.191	*
CHOICE15		0.028	0.039	0.239	-0.050	0.097	
BULLY15		0.048	0.037	0.109	-0.028	0.118	
DUTIES15		-0.077	0.040	0.025	-0.152	0.000	

PRESS15	-0.042	0.038	0.137	-0.117	0.031	
KES15	0.397	0.038	0.000	0.320	0.474	*
KES15 WITH						
PHY15	0.227	0.029	0.000	0.173	0.285	*
CHOICE15	-0.157	0.030	0.000	-0.214	-0.097	*
BULLY15	0.112	0.029	0.000	0.053	0.168	*
PRESS15	0.103	0.030	0.001	0.044	0.162	*
DUTIES15	-0.126	0.029	0.000	-0.188	-0.072	*
PHY15 WITH						
CHOICE15	-0.106	0.030	0.001	-0.162	-0.047	*
BULLY15	0.054	0.031	0.035	-0.004	0.114	
PRESS15	0.131	0.030	0.000	0.071	0.189	*
DUTIES15	-0.068	0.031	0.012	-0.129	-0.010	*
CHOICE15 WITH						
BULLY15	-0.121	0.030	0.000	-0.180	-0.064	*
PRESS15	-0.165	0.029	0.000	-0.224	-0.107	*
DUTIES15	0.134	0.030	0.000	0.074	0.196	*
BULLY15 WITH						
PRESS15	0.239	0.028	0.000	0.184	0.294	*
DUTIES15	-0.190	0.028	0.000	-0.244	-0.132	*
PRESS15 WITH						
DUTIES15	-0.262	0.029	0.000	-0.318	-0.205	*
Means						
PHY15	0.001	0.030	0.486	-0.059	0.059	
KES15	0.001	0.029	0.479	-0.053	0.056	
CHOICE15	-0.001	0.031	0.493	-0.061	0.060	
BULLY15	0.623	0.033	0.000	0.560	0.690	*
PRESS15	0.000	0.031	0.494	-0.060	0.064	
DUTIES15	0.000	0.031	0.497	-0.061	0.057	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16	ON						
PRAFAC		-0.581	0.232	0.013	-0.953	-0.073	*
SIZCAT		0.088	0.234	0.343	-0.383	0.557	
FINPRO		0.210	0.242	0.199	-0.266	0.689	
KNOW		-0.070	0.285	0.411	-0.595	0.499	
MANU		0.073	0.196	0.337	-0.315	0.447	
PRAFAC	WITH						
SIZCAT		0.256	0.116	0.019	0.011	0.461	*
FINPRO		0.158	0.125	0.116	-0.100	0.391	
KNOW		0.132	0.128	0.154	-0.112	0.385	
MANU		0.043	0.128	0.381	-0.202	0.292	
SIZCAT	WITH						
FINPRO		0.022	0.126	0.428	-0.230	0.265	
KNOW		-0.025	0.128	0.430	-0.270	0.225	
MANU		0.132	0.127	0.153	-0.122	0.364	
FINPRO	WITH						
KNOW		-0.347	0.120	0.006	-0.556	-0.088	*
MANU		-0.186	0.125	0.070	-0.411	0.076	
KNOW	WITH						
MANU		-0.103	0.128	0.209	-0.347	0.146	
Means							
PRAFAC		-0.158	0.133	0.109	-0.422	0.102	
SIZCAT		0.942	0.159	0.000	0.621	1.243	*
FINPRO		0.751	0.149	0.000	0.466	1.036	*
KNOW		0.460	0.134	0.000	0.203	0.731	*
MANU		0.241	0.136	0.035	-0.015	0.509	
Thresholds							
KESCAT16\$1		-1.228	0.714	0.003	-3.024	-0.237	*
Variances							
PRAFAC		1.000	0.000	0.000	1.000	1.000	
SIZCAT		1.000	0.000	0.000	1.000	1.000	
FINPRO		1.000	0.000	0.000	1.000	1.000	
KNOW		1.000	0.000	0.000	1.000	1.000	
MANU		1.000	0.000	0.000	1.000	1.000	



Residual Variances						
KESCAT16	0.438	0.232	0.000	0.029	0.844	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.216	0.033	0.000	0.153	0.280

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.562	0.232	0.000	0.156	0.971

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

LAMBDA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
KESCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 1	<hr/> 2	<hr/> 3	<hr/> 4	

ALPHA	
PRESS15	DUTIES15
<hr/> 5	<hr/> 6

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22

PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>60</u>

NU	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

NU
MANU
<u>0</u>

	LAMBDA				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PRAFAC	0	0	0	0	0
SIZCAT	0	0	0	0	0
FINPRO	0	0	0	0	0
KNOW	0	0	0	0	0
MANU	0	0	0	0	0

LAMBDA

	MANU
KESCAT16	0
PRAFAC	0
SIZCAT	0
FINPRO	0
KNOW	0
MANU	0

	THETA				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	0				
PRAFAC	0	0			
SIZCAT	0	0	0		
FINPRO	0	0	0	0	
KNOW	0	0	0	0	0
MANU	0	0	0	0	0

	THETA
	MANU
MANU	0

	ALPHA				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	0	34	35	36	37

	ALPHA
	MANU
	38

	BETA				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	0	39	40	41	42
PRAFAC	0	0	0	0	0

SIZCAT	0	0	0	0	0
FINPRO	0	0	0	0	0
KNOW	0	0	0	0	0
MANU	0	0	0	0	0

BETA  
MANU

KESCAT16	43
PRAFAC	0
SIZCAT	0
FINPRO	0
KNOW	0
MANU	0

PSI

	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	44				
PRAFAC	0	45			
SIZCAT	0	46	47		
FINPRO	0	48	49	50	
KNOW	0	51	52	53	54
MANU	0	55	56	57	58

PSI  
MANU

MANU	59
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STARTING VALUES FOR WITHIN

TAU

KESCAT16
0.000

NU

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

LAMBDA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	1.000
BULLY15	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	1.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	1.000
DUTIES15	0.000

THETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0.000			
PHY15	0.000	0.000		
KES15	0.000	0.000		
CHOICE15	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000

DUTIES15	0.000	0.000	0.000	0.000	0.000
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0.000</u>	<u>          </u>
DUTIES15	0.000	0.000

ALPHA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>          </u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.280</u>

ALPHA		
PRESS15		DUTIES15
<u>0.000</u>	<u>          </u>	<u>0.000</u>

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>          </u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15
<u>0.000</u>	<u>          </u>	<u>0.000</u>
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000



	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.101
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
-0.352

NU					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	0.000	0.000	0.000	0.000	0.000

NU
MANU
0.000

LAMBDA					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW

KESCAT16	1.000	0.000	0.000	0.000	0.000
PRAFAC	0.000	1.000	0.000	0.000	0.000
SIZCAT	0.000	0.000	1.000	0.000	0.000
FINPRO	0.000	0.000	0.000	1.000	0.000
KNOW	0.000	0.000	0.000	0.000	1.000
MANU	0.000	0.000	0.000	0.000	0.000

LAMBDA  
MANU

KESCAT16	0.000
PRAFAC	0.000
SIZCAT	0.000
FINPRO	0.000
KNOW	0.000
MANU	1.000

THETA

	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	0.000				
PRAFAC	0.000	0.000			
SIZCAT	0.000	0.000	0.000		
FINPRO	0.000	0.000	0.000	0.000	
KNOW	0.000	0.000	0.000	0.000	0.000
MANU	0.000	0.000	0.000	0.000	0.000

THETA  
MANU

MANU	0.000
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ALPHA

	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	0.000	-0.033	0.758	0.453	0.077

ALPHA

MANU

---

0.210

BETA

KESCAT16

PRAFAC

SIZCAT

FINPRO

KNOW

KESCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	0.000	0.000	0.000	0.000
SIZCAT	0.000	0.000	0.000	0.000	0.000
FINPRO	0.000	0.000	0.000	0.000	0.000
KNOW	0.000	0.000	0.000	0.000	0.000
MANU	0.000	0.000	0.000	0.000	0.000

BETA

MANU

KESCAT16	<hr/> 0.000
PRAFAC	0.000
SIZCAT	0.000
FINPRO	0.000
KNOW	0.000
MANU	0.000

PSI

KESCAT16

PRAFAC

SIZCAT

FINPRO

KNOW

KESCAT16	<hr/> 1.000				
PRAFAC	0.000	0.469			
SIZCAT	0.000	0.000	0.092		
FINPRO	0.000	0.000	0.000	0.124	
KNOW	0.000	0.000	0.000	0.000	0.036
MANU	0.000	0.000	0.000	0.000	0.000

PSI

MANU

MANU	<hr/> 0.083
------	-------------

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 40~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 41~N(0.000,5.000)	0.0000	5.0000	2.2361

Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 44~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 45~IW(1.000,6)	infinity	infinity	infinity
Parameter 46~IW(0.000,6)	infinity	infinity	infinity
Parameter 47~IW(1.000,6)	infinity	infinity	infinity
Parameter 48~IW(0.000,6)	infinity	infinity	infinity
Parameter 49~IW(0.000,6)	infinity	infinity	infinity
Parameter 50~IW(1.000,6)	infinity	infinity	infinity
Parameter 51~IW(0.000,6)	infinity	infinity	infinity
Parameter 52~IW(0.000,6)	infinity	infinity	infinity
Parameter 53~IW(0.000,6)	infinity	infinity	infinity
Parameter 54~IW(1.000,6)	infinity	infinity	infinity
Parameter 55~IW(0.000,6)	infinity	infinity	infinity
Parameter 56~IW(0.000,6)	infinity	infinity	infinity
Parameter 57~IW(0.000,6)	infinity	infinity	infinity
Parameter 58~IW(0.000,6)	infinity	infinity	infinity
Parameter 59~IW(1.000,6)	infinity	infinity	infinity
Parameter 60~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.618222D-03				
2	0.762755D-04	0.262845D-03			
3	-0.670904D-04	-0.885554D-04	0.115274D-02		
4	0.873010D-06	0.314567D-04	-0.720195D-04	0.182064D-03	
5	0.829503D-04	0.785200D-04	-0.182001D-03	0.114457D-03	0.114340D-02
6	-0.135494D-04	-0.666868D-04	0.149648D-03	-0.667854D-04	-0.269785D-03
7	0.326184D-04	-0.165183D-05	-0.145809D-04	-0.216386D-04	0.516361D-04
8	-0.427957D-04	-0.724489D-04	0.264490D-04	-0.145530D-05	-0.144078D-03
9	0.143072D-04	0.717917D-05	-0.591962D-05	0.166407D-05	-0.259592D-04
10	0.780335D-04	0.287147D-04	-0.585622D-04	-0.245908D-04	-0.268276D-04
11	-0.259690D-04	-0.805363D-05	0.497855D-04	-0.165692D-04	-0.527023D-04
12	-0.119490D-04	-0.227864D-05	-0.802702D-06	0.770413D-05	-0.491810D-04
13	-0.254141D-04	-0.181934D-04	0.366324D-04	-0.216405D-04	-0.158253D-04
14	-0.898599D-06	-0.945087D-05	-0.185173D-04	-0.844469D-05	-0.290697D-06
15	-0.338564D-06	0.437929D-05	-0.524889D-05	0.250202D-05	0.206320D-04
16	0.386891D-05	-0.107831D-05	-0.105750D-04	0.420697D-05	-0.452531D-04
17	-0.111160D-05	-0.110815D-04	-0.630041D-05	0.424037D-05	-0.308208D-06

18	0.150363D-04	0.145821D-04	-0.540090D-05	0.113024D-04	-0.793480D-05
19	0.835544D-05	-0.425445D-05	0.262754D-05	-0.177429D-05	-0.273682D-04
20	0.228098D-05	0.150820D-06	-0.974104D-05	0.223147D-05	-0.118634D-04
21	0.133038D-04	0.219693D-05	-0.333500D-05	0.222611D-05	0.597264D-05
22	-0.257011D-05	0.714371D-05	0.292115D-05	0.155461D-05	-0.110556D-04
23	-0.683205D-05	-0.191720D-05	0.213015D-04	-0.483390D-05	-0.279309D-05
24	0.515583D-05	-0.100281D-04	-0.202020D-05	0.201910D-05	0.426292D-05
25	-0.238768D-06	0.120904D-04	0.625085D-06	0.247038D-05	0.148781D-04
26	0.184588D-05	0.414536D-05	-0.223080D-04	0.290972D-05	-0.604953D-05
27	-0.150040D-04	-0.775032D-05	0.829152D-04	0.338165D-04	-0.628567D-05
28	-0.110774D-04	0.130082D-04	-0.178141D-04	0.560076D-05	-0.352640D-06
29	-0.450911D-05	0.696381D-05	-0.482672D-05	-0.451901D-05	-0.759798D-05
30	-0.431812D-04	-0.101897D-04	0.173178D-04	-0.869638D-05	-0.132834D-04
31	-0.267152D-05	-0.138928D-04	0.268720D-04	-0.373404D-05	-0.333682D-05
32	0.358980D-05	0.312608D-05	0.496734D-05	-0.337555D-04	-0.531823D-04
33	0.883188D-05	-0.217050D-04	0.260039D-05	0.107579D-04	0.604595D-04
34	-0.788328D-07	0.601690D-04	-0.176489D-03	0.100163D-06	0.141531D-03
35	0.240812D-04	-0.184574D-05	0.134704D-04	0.274555D-04	-0.615422D-05
36	-0.267776D-04	-0.178814D-04	-0.395020D-04	-0.254735D-04	0.104674D-04
37	0.422698D-05	0.796509D-05	0.478650D-04	0.246305D-04	0.161257D-04
38	0.119325D-04	0.436775D-04	-0.134146D-04	-0.675266D-05	0.887624D-05
39	-0.431860D-04	-0.345103D-04	-0.105625D-03	0.309427D-04	0.360099D-04
40	0.314028D-04	-0.623873D-04	0.259027D-03	-0.157460D-04	-0.203119D-03
41	-0.286182D-05	-0.354662D-04	0.263125D-04	-0.351402D-04	0.274277D-04
42	0.119537D-03	0.209318D-05	0.113728D-03	0.556630D-04	0.309451D-03
43	0.399381D-04	0.917986D-04	-0.109434D-03	0.152282D-04	0.113238D-03
44	0.373370D-04	0.624817D-05	0.290989D-04	-0.439136D-05	-0.104793D-04
45	0.528942D-04	0.202838D-04	-0.147018D-03	0.700245D-04	0.373550D-04
46	-0.664732D-05	-0.701836D-04	-0.137088D-04	0.149986D-04	-0.489895D-05
47	0.613143D-06	-0.193441D-06	-0.658695D-04	0.215197D-04	-0.154248D-04
48	-0.793584D-04	0.734179D-05	-0.163453D-04	-0.412706D-04	-0.325178D-04
49	-0.250931D-04	-0.850285D-05	0.950738D-05	-0.116448D-04	0.285839D-04
50	0.531841D-05	0.222661D-04	-0.858977D-07	0.584771D-06	0.330783D-04
51	-0.361821D-04	0.782328D-05	-0.555303D-05	0.401163D-04	-0.311962D-04
52	-0.201009D-04	-0.168210D-04	0.256616D-04	0.273961D-06	-0.210011D-04
53	-0.175181D-04	0.756768D-05	-0.862383D-05	-0.838646D-05	-0.150181D-04
54	0.131031D-04	0.626962D-05	0.206405D-05	0.325298D-05	-0.234819D-05
55	0.101116D-04	-0.172505D-04	-0.266148D-04	0.267006D-05	0.126658D-04
56	0.945373D-05	-0.183946D-05	0.989193D-05	-0.631562D-06	0.646349D-05
57	0.159394D-04	0.723450D-05	0.389558D-05	-0.883958D-05	-0.113101D-04
58	0.574996D-06	-0.106924D-04	-0.308571D-05	0.598151D-06	-0.101794D-04
59	-0.819705D-06	0.721280D-06	-0.165071D-05	0.154890D-05	0.257134D-06
60	0.277592D-04	-0.185791D-04	0.171932D-03	-0.189998D-05	-0.137984D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	0.965902D-03				
7	0.744287D-04	0.249808D-02			
8	-0.606917D-04	-0.463308D-03	0.822382D-02		
9	0.248160D-04	0.349352D-04	0.327861D-03	0.160072D-02	
10	-0.108651D-03	-0.143578D-03	0.137477D-03	0.323722D-03	0.891105D-02
11	0.611910D-04	-0.152011D-03	-0.786981D-04	0.135901D-03	-0.453349D-03
12	0.666782D-05	-0.121774D-03	0.284516D-03	-0.176382D-03	0.478910D-03
13	0.181258D-04	-0.263514D-04	-0.533771D-04	-0.809490D-04	0.509696D-05
14	0.734942D-05	-0.190832D-05	0.845884D-05	0.110859D-05	-0.341635D-04
15	0.207989D-05	-0.995349D-05	-0.460366D-04	-0.221025D-05	-0.846585D-04
16	-0.582463D-05	0.153156D-04	0.108551D-03	0.159393D-04	-0.118166D-03
17	-0.232002D-04	-0.213455D-04	0.907817D-05	0.293791D-04	0.141803D-04
18	-0.486959D-05	-0.753795D-04	-0.684828D-04	-0.349104D-04	0.335493D-03
19	0.194488D-04	0.641287D-07	0.310878D-04	-0.141588D-05	0.281415D-04
20	0.903298D-05	-0.186190D-05	0.252227D-04	-0.146407D-04	0.625870D-05
21	0.182816D-05	0.247914D-04	-0.696277D-04	-0.884758D-05	0.699818D-05
22	0.106835D-04	-0.639378D-06	0.887424D-05	-0.147808D-04	0.731663D-05
23	0.103275D-05	-0.386743D-04	0.294399D-04	-0.170191D-04	-0.428167D-04
24	0.414433D-06	0.773853D-05	-0.145431D-05	-0.356854D-04	-0.426386D-04
25	-0.140007D-04	-0.501948D-04	-0.271969D-04	0.159859D-04	-0.225505D-04
26	0.995728D-05	0.112729D-04	-0.437704D-04	-0.258021D-04	-0.552738D-04
27	0.114975D-04	0.169092D-04	0.158289D-04	0.169836D-04	0.622377D-04
28	-0.102541D-04	0.261088D-04	-0.862969D-04	-0.672044D-05	-0.171989D-04
29	0.103273D-04	0.430842D-05	-0.215163D-05	0.106540D-04	0.268692D-04
30	0.249569D-04	0.397644D-06	0.120137D-04	0.645545D-04	0.932230D-05
31	0.333135D-05	-0.248328D-05	0.442895D-04	0.312034D-04	-0.230732D-04
32	-0.152688D-04	0.483346D-05	-0.860822D-04	0.204204D-04	0.100194D-03
33	0.517829D-04	0.694625D-04	-0.775052D-04	-0.100026D-03	-0.403775D-04
34	-0.548778D-05	-0.175568D-03	-0.147058D-03	0.446227D-04	-0.101681D-03
35	0.203107D-04	0.262761D-04	0.175883D-04	-0.230086D-04	-0.658290D-04
36	0.571670D-04	-0.133284D-03	-0.157794D-03	0.582411D-04	-0.320287D-04
37	0.371700D-04	0.151881D-03	0.323786D-04	0.302502D-04	0.126059D-03
38	-0.556307D-04	0.169292D-04	0.344428D-04	-0.875416D-05	-0.900039D-05
39	0.664999D-05	0.306284D-04	-0.757917D-04	-0.160006D-03	0.172469D-03
40	0.166413D-03	0.928574D-04	0.254548D-03	0.307476D-03	-0.562915D-03
41	-0.135289D-03	0.810087D-04	-0.238828D-03	0.317131D-03	-0.707112D-03
42	-0.152837D-03	0.474639D-03	0.504681D-05	-0.342814D-03	-0.106721D-03
43	0.635570D-04	0.188425D-04	-0.146478D-03	-0.151955D-04	-0.152839D-02
44	0.561458D-04	0.151950D-03	0.349938D-03	0.114370D-03	-0.134437D-03
45	-0.793612D-04	-0.477192D-03	0.779454D-03	0.578250D-03	0.110484D-02

46	0.117699D-04	0.190632D-03	0.690862D-04	0.462532D-04	0.311597D-03
47	-0.182425D-04	0.813315D-04	0.804225D-04	-0.478499D-04	0.726991D-04
48	-0.401006D-04	-0.176151D-03	0.291263D-03	-0.401611D-04	0.103419D-03
49	-0.116650D-04	-0.896321D-04	0.556598D-04	0.297189D-04	-0.348267D-04
50	-0.603401D-04	-0.686370D-04	0.212898D-03	0.728933D-04	0.847138D-04
51	0.160318D-04	0.456195D-04	0.139606D-03	0.103947D-03	0.103830D-03
52	0.720800D-04	0.150664D-04	-0.456727D-04	-0.180549D-05	0.506010D-04
53	0.170397D-04	-0.223982D-04	0.216624D-04	-0.531174D-04	-0.279747D-04
54	0.113608D-04	0.242332D-05	0.129581D-04	-0.175825D-04	-0.101102D-04
55	0.191195D-04	-0.419181D-04	-0.179150D-03	0.668148D-05	0.198422D-03
56	0.641531D-05	0.278981D-04	-0.917369D-04	-0.602448D-05	0.524474D-04
57	0.386669D-04	-0.413411D-05	-0.668048D-04	-0.259884D-04	0.300467D-04
58	-0.247091D-04	0.609065D-05	0.607800D-04	0.334650D-04	0.323221D-04
59	-0.209292D-05	-0.826272D-05	0.109265D-04	0.638132D-05	-0.244478D-05
60	0.365625D-05	-0.512666D-04	-0.106716D-02	0.384910D-03	0.117841D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.159506D-02				
12	0.404482D-03	0.193396D-02			
13	-0.203607D-04	0.417888D-04	0.852949D-03		
14	0.118211D-04	-0.103579D-04	0.134661D-03	0.213539D-03	
15	0.599171D-05	-0.505833D-05	0.331695D-04	0.642592D-04	0.174860D-03
16	-0.490548D-04	-0.143045D-04	-0.120610D-03	-0.660139D-04	-0.121407D-04
17	-0.120968D-04	-0.256628D-04	-0.304153D-04	-0.499763D-04	-0.625271D-04
18	-0.133616D-04	0.595807D-04	0.762104D-05	-0.684508D-05	0.156966D-04
19	0.221014D-04	0.810218D-05	0.356053D-04	0.163336D-04	0.532572D-05
20	-0.800481D-05	0.176177D-04	-0.330838D-05	0.844959D-05	0.166412D-04
21	-0.212440D-04	0.113614D-04	-0.303709D-04	-0.705397D-05	-0.384457D-05
22	-0.170633D-05	0.692675D-05	0.751108D-05	0.465314D-05	-0.171190D-06
23	0.162370D-04	0.979132D-05	0.157523D-03	0.703493D-04	0.195301D-04
24	0.808703D-05	0.282863D-04	0.793961D-05	0.487060D-04	0.366266D-04
25	0.124404D-04	-0.609954D-04	-0.680785D-04	-0.364107D-04	-0.218358D-04
26	0.554934D-05	0.437156D-05	0.177376D-04	0.836406D-05	-0.254391D-05
27	-0.566716D-04	0.168148D-04	0.464021D-04	0.281297D-04	0.206827D-04
28	-0.660341D-05	0.416221D-05	-0.930077D-04	-0.693433D-04	-0.171812D-04
29	0.174156D-04	0.779039D-05	-0.325954D-04	-0.342340D-04	-0.447684D-04
30	0.655131D-06	-0.139394D-04	0.235157D-04	0.107782D-04	0.100907D-04
31	0.176026D-04	0.160870D-06	-0.144545D-05	-0.463967D-05	-0.708833D-05
32	0.485467D-04	0.632127D-04	0.505532D-05	-0.142138D-04	-0.371954D-04
33	-0.154571D-04	-0.145777D-03	0.802664D-04	-0.776166D-07	0.279741D-04
34	0.353517D-04	0.137827D-03	0.512702D-04	-0.328611D-04	-0.161677D-04



35	0.142388D-04	0.597753D-04	-0.368174D-04	0.308517D-04	-0.878978D-06
36	0.105461D-03	0.896447D-04	-0.165210D-05	0.120737D-04	0.235467D-04
37	0.250164D-04	-0.848397D-04	0.287682D-04	0.242303D-04	-0.129300D-04
38	0.247476D-04	-0.261693D-04	0.303280D-04	-0.326428D-05	-0.917684D-05
39	-0.367497D-04	0.181011D-03	0.468035D-04	0.135412D-05	-0.254250D-04
40	-0.287211D-03	-0.155716D-03	0.170992D-03	0.576689D-04	0.634323D-04
41	-0.298333D-04	-0.399935D-03	-0.630639D-04	-0.369544D-04	0.817230D-04
42	-0.312042D-03	-0.564726D-03	0.561316D-04	-0.957319D-04	0.135539D-03
43	0.589555D-04	0.287836D-03	-0.372617D-04	-0.116504D-03	0.809811D-04
44	-0.936401D-06	-0.422167D-04	-0.223979D-04	0.231847D-04	0.167653D-04
45	-0.463205D-03	-0.181550D-04	-0.847810D-04	0.259295D-04	0.563035D-04
46	-0.418000D-04	-0.766634D-05	-0.357415D-04	-0.536487D-04	-0.136530D-04
47	-0.485009D-04	-0.535234D-04	-0.224827D-04	0.388752D-05	0.527737D-05
48	-0.123785D-03	-0.627762D-04	0.425308D-04	0.496933D-04	0.605145D-05
49	0.250663D-04	-0.394820D-05	0.633337D-04	0.285076D-04	0.499421D-05
50	-0.582018D-04	-0.444102D-04	0.241275D-04	-0.175209D-04	-0.823182D-05
51	0.128301D-03	-0.216350D-04	-0.522346D-04	0.136184D-04	0.100244D-04
52	0.473226D-04	0.400005D-04	-0.317139D-04	-0.133758D-04	-0.529386D-05
53	0.666048D-05	-0.374649D-06	-0.207379D-04	-0.119006D-04	-0.312003D-05
54	0.283892D-04	-0.107820D-04	0.690171D-05	0.637308D-05	-0.136814D-04
55	-0.684637D-04	0.150534D-03	0.576350D-04	-0.369566D-04	-0.604217D-05
56	-0.754034D-05	0.320730D-04	0.113494D-04	0.802248D-05	0.454534D-06
57	0.449429D-05	0.238987D-04	0.202781D-04	0.113628D-04	0.508247D-06
58	-0.537082D-06	0.211879D-05	0.245257D-05	-0.521236D-05	-0.650949D-05
59	0.219539D-05	0.273516D-04	0.264904D-05	0.366270D-05	-0.253517D-05
60	-0.418345D-03	-0.155628D-03	0.122348D-03	-0.336787D-04	0.759151D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.762405D-03				
17	0.123910D-03	0.364504D-03			
18	-0.258408D-03	-0.207274D-03	0.260051D-02		
19	-0.400989D-04	-0.583105D-05	0.270865D-04	0.136634D-03	
20	-0.559073D-05	-0.186043D-04	-0.634770D-05	0.199572D-04	0.567200D-04
21	0.231251D-04	0.262163D-04	-0.111112D-03	-0.245936D-04	-0.196489D-04
22	0.680828D-06	-0.897593D-05	-0.298702D-05	0.592397D-05	0.116468D-04
23	-0.149246D-03	-0.326270D-04	0.706002D-04	0.816530D-04	0.144354D-04
24	-0.394329D-04	-0.641771D-04	0.391735D-04	0.191652D-04	0.351933D-04
25	0.162998D-03	0.107891D-03	-0.499913D-03	-0.238071D-04	-0.989178D-05
26	-0.192884D-04	-0.159908D-04	0.281406D-04	0.158260D-04	0.130782D-04
27	-0.573016D-04	-0.132439D-04	0.168153D-04	0.182618D-04	0.180873D-04
28	0.102464D-03	0.273244D-04	-0.518495D-04	-0.579852D-04	-0.836063D-05

29	0.710895D-05	0.520577D-04	-0.279097D-04	-0.725868D-05	-0.261703D-04
30	-0.115156D-03	-0.104700D-03	0.397240D-03	0.222343D-05	-0.823823D-06
31	-0.989089D-05	0.726619D-05	0.658046D-05	-0.113841D-04	-0.159779D-04
32	0.340679D-04	0.523407D-04	-0.749237D-04	-0.101977D-04	-0.133227D-04
33	-0.291917D-04	-0.375572D-04	0.580519D-04	0.952028D-05	0.366147D-05
34	0.621024D-04	-0.550546D-06	0.892261D-04	0.351407D-04	-0.562486D-05
35	-0.117851D-03	-0.994584D-06	-0.668701D-04	0.407234D-04	0.197191D-05
36	-0.446041D-04	-0.196493D-05	0.700978D-04	0.775750D-05	-0.263902D-05
37	-0.152399D-04	0.203411D-04	0.115645D-03	-0.127075D-04	-0.166502D-04
38	-0.156297D-04	0.437336D-05	-0.504788D-05	-0.968338D-05	-0.103499D-04
39	-0.270814D-04	-0.968795D-05	0.699628D-04	-0.136151D-04	-0.139011D-04
40	-0.281388D-04	-0.610975D-04	0.197420D-03	0.235341D-04	0.489832D-04
41	0.847548D-04	-0.315608D-04	-0.261587D-03	-0.301293D-04	0.493521D-05
42	0.120460D-03	-0.160135D-03	-0.270172D-03	0.322501D-04	0.289071D-04
43	0.105999D-03	0.996486D-05	-0.390922D-03	0.186639D-04	-0.927251D-05
44	-0.476907D-04	-0.447565D-04	-0.148689D-04	-0.652897D-05	0.227527D-05
45	-0.171090D-03	-0.183146D-03	-0.380064D-03	0.111446D-03	0.610552D-04
46	0.495362D-04	0.118194D-04	-0.159440D-03	-0.139089D-05	-0.203860D-04
47	0.119355D-04	0.609552D-05	-0.240507D-05	0.191697D-04	0.527954D-05
48	-0.553418D-04	-0.257073D-04	0.518421D-04	0.959877D-06	0.174869D-04
49	-0.517084D-04	-0.360651D-04	-0.585057D-04	0.106805D-04	0.548608D-05
50	-0.158392D-04	0.231623D-04	-0.622628D-05	-0.152053D-04	-0.116447D-04
51	-0.502460D-04	0.146222D-05	0.175241D-03	0.154854D-04	-0.104722D-04
52	0.407862D-04	0.106750D-04	-0.890539D-06	0.575786D-05	-0.682266D-05
53	-0.338704D-04	-0.746737D-05	0.864821D-05	-0.421983D-05	0.689592D-05
54	0.572502D-05	0.994248D-05	0.888150D-04	0.733560D-06	-0.770957D-06
55	0.156355D-04	-0.179600D-05	-0.601676D-04	0.743989D-06	-0.113438D-04
56	0.703667D-05	0.110665D-04	-0.134245D-04	0.280062D-05	-0.274298D-05
57	-0.401776D-05	-0.686994D-05	0.591316D-05	0.130510D-04	0.426120D-05
58	0.181004D-05	0.859635D-05	0.161308D-05	-0.315249D-05	-0.357012D-05
59	-0.134346D-05	0.124843D-05	-0.160303D-04	-0.375365D-05	-0.218314D-05
60	0.435387D-04	-0.260414D-04	-0.129269D-03	0.202166D-04	0.358707D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.230457D-03				
22	-0.201461D-04	0.757312D-04			
23	-0.404528D-04	0.143221D-04	0.750687D-03		
24	-0.169565D-04	0.724957D-05	0.124933D-03	0.339458D-03	
25	0.136379D-03	-0.179537D-04	-0.179316D-03	-0.136027D-03	0.132403D-02
26	-0.432065D-04	0.394317D-04	0.442968D-04	0.410595D-04	-0.848485D-04
27	-0.347717D-04	0.368294D-04	0.233295D-03	0.135613D-03	-0.455170D-03

28	0.139712D-04	0.232934D-05	-0.210951D-03	-0.521919D-04	0.540801D-04
29	0.812890D-05	-0.597035D-05	-0.221295D-04	-0.877676D-04	0.272641D-04
30	-0.103851D-03	-0.286341D-05	0.389909D-04	-0.586491D-05	-0.299558D-03
31	0.323437D-04	-0.268406D-04	-0.248542D-04	-0.186453D-04	0.736834D-05
32	0.447650D-04	-0.140947D-04	-0.121080D-03	-0.998088D-04	0.260403D-03
33	-0.293033D-04	0.781460D-05	0.538442D-04	-0.597338D-05	0.389947D-05
34	-0.303511D-04	0.441200D-05	-0.400806D-04	-0.589828D-04	-0.168491D-03
35	-0.264120D-04	-0.327242D-05	0.644913D-04	0.952648D-05	-0.683691D-04
36	-0.991017D-07	0.177723D-05	-0.446517D-04	0.163848D-04	-0.475418D-04
37	0.163582D-05	0.154186D-04	-0.145528D-04	-0.215238D-04	-0.442385D-04
38	0.471864D-05	-0.180232D-04	0.327297D-04	0.502198D-06	-0.145670D-04
39	0.400188D-05	0.143843D-04	-0.155314D-04	0.366258D-07	-0.274698D-04
40	-0.131308D-03	0.258091D-04	0.924430D-04	-0.357855D-04	-0.463876D-04
41	0.353735D-04	-0.365162D-04	0.621892D-04	-0.290514D-04	0.552735D-04
42	0.469683D-04	-0.232573D-04	-0.105443D-03	0.414336D-04	0.276810D-03
43	0.199263D-03	-0.224123D-04	-0.713711D-04	-0.579444D-04	0.186256D-04
44	0.542188D-05	-0.540109D-05	0.642818D-05	-0.147188D-05	-0.215516D-04
45	-0.124383D-03	0.982313D-04	0.176203D-03	0.102151D-03	-0.180065D-03
46	0.450302D-05	-0.166369D-04	-0.100057D-03	-0.735016D-04	0.873549D-04
47	-0.613316D-05	-0.198907D-04	0.596281D-04	0.234439D-04	-0.353961D-04
48	0.605293D-05	-0.312751D-04	0.528320D-04	0.253003D-04	-0.126422D-03
49	0.953691D-05	-0.992279D-05	0.282204D-04	0.835118D-06	-0.154978D-04
50	0.482511D-04	0.583524D-07	0.108766D-04	0.178986D-04	0.243153D-04
51	-0.566297D-04	0.242504D-04	-0.840394D-04	-0.320567D-04	0.397377D-05
52	-0.168300D-04	0.154325D-04	-0.245604D-04	0.852160D-05	-0.307073D-04
53	-0.374630D-04	0.497075D-05	-0.349847D-04	-0.101078D-04	-0.434358D-05
54	0.413027D-05	-0.263986D-05	-0.694980D-05	-0.108470D-04	0.762056D-05
55	0.219815D-04	0.349668D-05	-0.101304D-04	-0.343613D-04	-0.596527D-04
56	-0.253821D-05	0.166593D-05	0.375830D-04	-0.125469D-05	-0.327740D-04
57	-0.794876D-05	0.186067D-05	0.208844D-04	-0.122963D-05	-0.345747D-04
58	0.189967D-04	-0.878604D-06	-0.163964D-04	-0.471312D-05	-0.145400D-04
59	-0.238798D-05	0.122905D-05	-0.712300D-05	0.112268D-04	-0.527912D-05
60	0.133474D-04	-0.297168D-04	0.906329D-04	-0.684824D-04	0.987331D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.214983D-03				
27	0.235032D-03	0.247153D-02			
28	0.318092D-05	0.116621D-04	0.691537D-03		
29	-0.256069D-04	-0.430562D-04	0.976298D-04	0.292930D-03	
30	0.319228D-04	0.120692D-03	-0.106395D-03	-0.916062D-04	0.118585D-02
31	-0.539663D-04	-0.597047D-04	0.134235D-04	0.241810D-04	-0.343715D-04

32	-0.132696D-03	-0.668141D-03	0.119666D-03	0.768723D-04	-0.247313D-03
33	0.273545D-04	0.196364D-03	-0.912057D-04	-0.127480D-03	0.307250D-03
34	-0.111660D-05	0.214855D-03	0.118802D-03	-0.209113D-04	0.195466D-03
35	-0.154018D-04	0.230693D-04	0.121207D-04	-0.332842D-04	0.580050D-04
36	0.217075D-04	0.114666D-03	0.507573D-04	0.166175D-04	0.526118D-04
37	-0.964609D-05	-0.625133D-04	-0.257298D-04	0.203917D-04	0.575577D-05
38	-0.248289D-04	0.231319D-05	-0.281126D-04	-0.301877D-04	0.650658D-05
39	0.836839D-06	0.733436D-04	0.247285D-04	0.361066D-04	-0.117822D-03
40	0.743032D-04	-0.162886D-04	-0.311825D-05	-0.229537D-04	0.290746D-03
41	-0.106286D-04	0.181586D-03	-0.139405D-04	-0.102552D-03	0.298100D-05
42	0.813950D-04	0.496270D-04	-0.480075D-04	-0.174944D-03	0.240746D-04
43	0.133762D-03	-0.198801D-03	-0.651692D-04	-0.246174D-03	-0.172303D-03
44	-0.190921D-04	0.642914D-05	0.318883D-04	-0.142193D-04	-0.122748D-04
45	-0.104586D-03	0.123891D-03	-0.450578D-03	-0.153937D-03	0.121126D-03
46	-0.661447D-04	-0.756541D-04	-0.484466D-04	-0.274267D-04	-0.103079D-03
47	-0.169272D-04	0.204334D-04	-0.151103D-04	0.731105D-05	0.241286D-04
48	-0.212792D-04	0.396665D-04	-0.849411D-05	0.163404D-04	0.458398D-04
49	-0.195808D-04	0.396049D-04	-0.546044D-04	-0.170506D-04	0.142127D-04
50	-0.202096D-04	0.199219D-04	0.539416D-04	0.392621D-04	-0.204516D-04
51	-0.817044D-05	-0.424746D-04	-0.385606D-04	-0.331053D-05	0.602532D-04
52	0.125935D-04	0.318749D-04	-0.303647D-04	0.401340D-07	-0.163281D-04
53	0.883431D-05	-0.282029D-05	0.573913D-04	-0.553017D-06	-0.249183D-04
54	-0.238347D-04	-0.259320D-04	-0.221737D-04	0.340831D-05	0.281855D-04
55	0.303117D-05	0.507446D-04	0.117644D-04	0.161735D-04	-0.739235D-04
56	0.968995D-06	-0.944714D-05	-0.200951D-04	-0.863712D-05	0.163213D-04
57	0.367284D-05	0.216992D-04	-0.574210D-04	-0.279322D-05	0.922348D-05
58	-0.272102D-06	0.170745D-04	0.111546D-04	0.122918D-04	-0.154959D-04
59	-0.323470D-05	0.193178D-04	-0.359947D-05	-0.183994D-05	-0.150012D-05
60	0.401615D-04	0.232066D-04	-0.910120D-04	-0.129825D-03	0.152124D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.184915D-03				
32	0.135952D-03	0.125764D-02			
33	-0.155359D-03	-0.578355D-03	0.197191D-02		
34	-0.138485D-04	-0.200230D-04	0.137645D-03	0.240563D-01	
35	-0.474831D-05	-0.638435D-04	0.101324D-03	0.285588D-02	0.474932D-02
36	0.202900D-04	-0.533989D-04	-0.188033D-04	0.146367D-02	0.310845D-04
37	-0.472005D-05	-0.279243D-04	-0.331802D-04	0.102739D-02	-0.391807D-04
38	-0.740374D-05	0.599052D-05	0.177653D-04	0.506347D-03	0.399587D-03
39	0.304635D-04	0.560350D-04	-0.116257D-03	0.984169D-04	0.988752D-04
40	0.543615D-05	-0.996035D-04	0.503685D-04	-0.633769D-03	-0.477350D-03

41	-0.398085D-04	-0.106632D-03	0.973358D-05	0.106679D-03	0.306473D-03
42	-0.492213D-05	0.478896D-04	0.618083D-04	0.572718D-03	0.361659D-03
43	-0.201012D-04	0.112521D-04	-0.365175D-03	0.431516D-03	-0.208194D-03
44	0.268540D-04	0.297895D-04	-0.382221D-04	-0.358872D-03	0.822799D-04
45	0.585728D-04	-0.239594D-03	0.449081D-03	0.201731D-02	0.198244D-03
46	0.212486D-04	0.994860D-04	0.492927D-04	0.135589D-03	-0.132241D-03
47	0.177674D-04	0.573827D-05	-0.328879D-05	-0.396288D-04	-0.408104D-05
48	-0.433908D-05	-0.519538D-05	-0.171132D-03	0.454549D-03	-0.786369D-05
49	-0.145954D-05	-0.516972D-04	0.582665D-04	0.186418D-03	0.763412D-04
50	0.372317D-05	-0.477260D-04	-0.272165D-04	-0.137465D-03	-0.134605D-03
51	-0.694674D-06	-0.883269D-04	0.986004D-04	0.658994D-03	0.155035D-03
52	0.419479D-05	-0.819822D-05	0.178320D-04	0.116044D-04	-0.855987D-04
53	0.171691D-05	0.314729D-06	-0.477156D-04	0.772497D-04	0.407023D-04
54	-0.115983D-04	-0.169173D-04	0.310624D-04	0.115977D-03	-0.608382D-04
55	-0.240003D-05	0.138665D-04	0.651396D-04	-0.587803D-04	0.919561D-06
56	0.726503D-06	0.124500D-04	-0.261938D-04	-0.162745D-03	0.795214D-05
57	0.131948D-05	0.274971D-04	-0.150332D-04	0.830294D-04	-0.305990D-04
58	0.946768D-05	0.183708D-05	0.196557D-04	-0.374618D-04	-0.334207D-05
59	-0.602180D-05	-0.727435D-05	-0.645377D-05	-0.113700D-03	-0.320891D-04
60	-0.229176D-04	-0.422293D-04	0.670784D-04	-0.260338D-03	-0.209173D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.457281D-02				
37	-0.118646D-02	0.290811D-02			
38	-0.508604D-03	-0.165495D-03	0.152340D-02		
39	-0.162227D-04	0.293675D-04	0.555448D-04	0.346240D-02	
40	-0.298207D-04	0.944396D-04	-0.120538D-03	-0.207684D-02	0.158044D-01
41	-0.313773D-03	0.745814D-04	0.240468D-03	-0.159467D-02	-0.752567D-03
42	-0.249815D-04	0.117160D-03	0.132940D-03	-0.274816D-02	0.178856D-02
43	-0.294996D-03	0.542362D-03	-0.622419D-04	-0.213184D-02	-0.314035D-02
44	0.637546D-04	-0.828084D-04	0.218160D-04	-0.248536D-03	0.314830D-03
45	-0.204921D-03	0.192551D-03	-0.103784D-03	-0.335876D-03	0.688341D-03
46	-0.198622D-03	0.222534D-04	0.361000D-04	0.121026D-03	-0.540179D-05
47	-0.143416D-03	0.994855D-04	0.509350D-04	0.162344D-03	-0.237127D-03
48	0.152954D-03	0.285461D-04	0.111398D-03	-0.161707D-03	0.205270D-03
49	0.511939D-04	-0.231482D-04	0.423867D-04	-0.574413D-04	0.521616D-04
50	0.565550D-04	0.826271D-04	-0.397694D-04	-0.672473D-05	0.146842D-03
51	0.228477D-04	0.860001D-04	-0.135574D-04	0.153732D-03	-0.205983D-03
52	0.117570D-05	-0.477399D-04	0.163519D-04	0.134106D-04	-0.142519D-03
53	0.108177D-04	-0.344633D-04	0.565487D-04	0.705850D-04	-0.527354D-04
54	0.528039D-05	0.911093D-04	-0.186460D-05	-0.407208D-04	0.952504D-04

55	-0.104641D-03	-0.579117D-04	-0.144972D-04	0.776880D-04	-0.235788D-03
56	-0.293088D-04	0.325881D-04	0.365434D-05	-0.267290D-05	-0.941055D-04
57	-0.359827D-04	0.436028D-04	0.177167D-04	0.182121D-04	-0.274321D-04
58	0.113380D-04	-0.247096D-04	-0.144590D-05	-0.136055D-04	-0.224227D-04
59	0.314583D-04	-0.271739D-04	-0.690803D-05	-0.143276D-05	-0.218285D-04
60	-0.261078D-03	0.265653D-03	-0.108659D-03	-0.304792D-02	0.962288D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.172797D-01				
42	0.102858D-01	0.368222D-01			
43	0.110975D-01	0.117085D-01	0.371699D-01		
44	-0.155340D-03	-0.606495D-04	-0.114713D-02	0.177443D-02	
45	-0.209534D-02	-0.193120D-02	-0.129537D-02	0.257156D-03	0.665458D-01
46	-0.189942D-03	-0.581124D-03	-0.196752D-03	0.146126D-04	0.809550D-02
47	0.144420D-04	0.332048D-03	-0.177698D-04	-0.274004D-04	0.157047D-02
48	-0.320620D-03	0.253403D-03	0.280243D-03	0.975864D-05	0.354573D-02
49	-0.590363D-04	0.879447D-04	-0.238708D-04	0.296637D-04	0.372957D-03
50	-0.897389D-04	-0.157762D-03	-0.220518D-03	-0.251950D-05	0.165873D-03
51	-0.164784D-03	-0.692089D-03	-0.362302D-03	0.111346D-03	0.410352D-02
52	0.858568D-04	-0.170456D-03	-0.131984D-03	-0.207636D-04	0.346436D-03
53	-0.715298D-04	0.102476D-03	0.239836D-05	0.144774D-04	0.173123D-03
54	-0.692737D-04	-0.173633D-03	0.287290D-04	-0.955742D-05	0.331947D-03
55	-0.149541D-03	-0.611195D-03	-0.138193D-03	-0.908526D-04	0.729152D-03
56	0.353686D-04	0.120271D-04	0.756618D-04	-0.112108D-04	0.963592D-04
57	-0.424060D-04	-0.686607D-04	-0.222788D-04	-0.247811D-04	-0.158313D-06
58	0.446387D-05	-0.387526D-04	-0.592942D-04	-0.186757D-04	-0.437175D-04
59	-0.740894D-05	-0.123443D-03	-0.192617D-04	0.266495D-04	0.145492D-03
60	0.927683D-02	0.114937D-01	0.880051D-02	-0.255607D-03	-0.455619D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.658546D-02				
47	0.145723D-02	0.260690D-02			
48	0.231815D-03	0.174497D-03	0.632528D-02		
49	0.352053D-03	0.351754D-04	0.620481D-03	0.119258D-02	
50	-0.821413D-04	-0.752571D-04	0.787789D-03	0.942245D-04	0.260880D-02
51	0.375295D-03	-0.113135D-03	-0.165683D-02	-0.121179D-03	-0.279755D-03
52	0.284299D-03	-0.123948D-03	-0.264733D-03	-0.340507D-03	-0.721260D-04
53	-0.291813D-04	-0.200524D-04	0.236450D-03	-0.393168D-04	-0.762596D-03

54	0.174299D-03	0.623562D-04	-0.254337D-03	0.200994D-04	0.278773D-03
55	0.490485D-03	0.391189D-04	-0.685657D-03	-0.418191D-04	-0.733581D-04
56	0.966865D-04	0.146203D-03	-0.494498D-05	-0.138128D-03	-0.250724D-04
57	0.445790D-04	0.311791D-04	0.119762D-04	0.816642D-04	-0.250666D-03
58	0.121705D-04	-0.233178D-04	-0.111763D-03	-0.134775D-04	0.526158D-04
59	0.644842D-04	0.120691D-04	-0.361591D-04	-0.392782D-04	0.471567D-04
60	-0.158869D-03	-0.229756D-03	0.361430D-04	-0.425031D-04	-0.982666D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.453092D-02				
52	0.561589D-03	0.822810D-03			
53	0.236799D-03	0.401984D-04	0.100781D-02		
54	0.471483D-03	-0.123690D-04	-0.506663D-03	0.112871D-02	
55	-0.204245D-03	-0.309994D-04	-0.662872D-04	0.168278D-04	0.208033D-02
56	-0.348860D-04	-0.457011D-04	-0.102789D-04	0.140327D-04	0.210297D-03
57	-0.534075D-04	-0.662969D-05	-0.230244D-04	0.194409D-04	0.106858D-03
58	0.153831D-04	0.473419D-04	-0.687404D-04	-0.659923D-04	0.133526D-03
59	0.510828D-04	0.269167D-05	0.840472D-05	0.171608D-04	0.631037D-04
60	-0.416578D-03	-0.137396D-04	0.209277D-06	-0.546000D-04	-0.249907D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.401390D-03				
57	-0.423118D-05	0.393882D-03			
58	-0.692448D-05	-0.885162D-04	0.265867D-03		
59	0.504995D-04	-0.772264D-04	-0.301394D-04	0.255422D-03	
60	-0.283845D-05	0.150674D-04	-0.137606D-04	-0.256303D-04	0.163557D-01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.189	1.000			
3	-0.079	-0.161	1.000		
4	0.003	0.144	-0.157	1.000	
5	0.099	0.143	-0.159	0.251	1.000
6	-0.018	-0.132	0.142	-0.159	-0.257
7	0.026	-0.002	-0.009	-0.032	0.031

8	-0.019	-0.049	0.009	-0.001	-0.047
9	0.014	0.011	-0.004	0.003	-0.019
10	0.033	0.019	-0.018	-0.019	-0.008
11	-0.026	-0.012	0.037	-0.031	-0.039
12	-0.011	-0.003	-0.001	0.013	-0.033
13	-0.035	-0.038	0.037	-0.055	-0.016
14	-0.002	-0.040	-0.037	-0.043	-0.001
15	-0.001	0.020	-0.012	0.014	0.046
16	0.006	-0.002	-0.011	0.011	-0.048
17	-0.002	-0.036	-0.010	0.016	0.000
18	0.012	0.018	-0.003	0.016	-0.005
19	0.029	-0.022	0.007	-0.011	-0.069
20	0.012	0.001	-0.038	0.022	-0.047
21	0.035	0.009	-0.006	0.011	0.012
22	-0.012	0.051	0.010	0.013	-0.038
23	-0.010	-0.004	0.023	-0.013	-0.003
24	0.011	-0.034	-0.003	0.008	0.007
25	0.000	0.020	0.001	0.005	0.012
26	0.005	0.017	-0.045	0.015	-0.012
27	-0.012	-0.010	0.049	0.050	-0.004
28	-0.017	0.031	-0.020	0.016	0.000
29	-0.011	0.025	-0.008	-0.020	-0.013
30	-0.050	-0.018	0.015	-0.019	-0.011
31	-0.008	-0.063	0.058	-0.020	-0.007
32	0.004	0.005	0.004	-0.071	-0.044
33	0.008	-0.030	0.002	0.018	0.040
34	0.000	0.024	-0.034	0.000	0.027
35	0.014	-0.002	0.006	0.030	-0.003
36	-0.016	-0.016	-0.017	-0.028	0.005
37	0.003	0.009	0.026	0.034	0.009
38	0.012	0.069	-0.010	-0.013	0.007
39	-0.030	-0.036	-0.053	0.039	0.018
40	0.010	-0.031	0.061	-0.009	-0.048
41	-0.001	-0.017	0.006	-0.020	0.006
42	0.025	0.001	0.017	0.021	0.048
43	0.008	0.029	-0.017	0.006	0.017
44	0.036	0.009	0.020	-0.008	-0.007
45	0.008	0.005	-0.017	0.020	0.004
46	-0.003	-0.053	-0.005	0.014	-0.002
47	0.000	0.000	-0.038	0.031	-0.009
48	-0.040	0.006	-0.006	-0.038	-0.012
49	-0.029	-0.015	0.008	-0.025	0.024
50	0.004	0.027	0.000	0.001	0.019
51	-0.022	0.007	-0.002	0.044	-0.014



52	-0.028	-0.036	0.026	0.001	-0.022
53	-0.022	0.015	-0.008	-0.020	-0.014
54	0.016	0.012	0.002	0.007	-0.002
55	0.009	-0.023	-0.017	0.004	0.008
56	0.019	-0.006	0.015	-0.002	0.010
57	0.032	0.022	0.006	-0.033	-0.017
58	0.001	-0.040	-0.006	0.003	-0.018
59	-0.002	0.003	-0.003	0.007	0.000
60	0.009	-0.009	0.040	-0.001	-0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.048	1.000			
8	-0.022	-0.102	1.000		
9	0.020	0.017	0.090	1.000	
10	-0.037	-0.030	0.016	0.086	1.000
11	0.049	-0.076	-0.022	0.085	-0.120
12	0.005	-0.055	0.071	-0.100	0.115
13	0.020	-0.018	-0.020	-0.069	0.002
14	0.016	-0.003	0.006	0.002	-0.025
15	0.005	-0.015	-0.038	-0.004	-0.068
16	-0.007	0.011	0.043	0.014	-0.045
17	-0.039	-0.022	0.005	0.038	0.008
18	-0.003	-0.030	-0.015	-0.017	0.070
19	0.054	0.000	0.029	-0.003	0.026
20	0.039	-0.005	0.037	-0.049	0.009
21	0.004	0.033	-0.051	-0.015	0.005
22	0.040	-0.001	0.011	-0.042	0.009
23	0.001	-0.028	0.012	-0.016	-0.017
24	0.001	0.008	-0.001	-0.048	-0.025
25	-0.012	-0.028	-0.008	0.011	-0.007
26	0.022	0.015	-0.033	-0.044	-0.040
27	0.007	0.007	0.004	0.009	0.013
28	-0.013	0.020	-0.036	-0.006	-0.007
29	0.019	0.005	-0.001	0.016	0.017
30	0.023	0.000	0.004	0.047	0.003
31	0.008	-0.004	0.036	0.057	-0.018
32	-0.014	0.003	-0.027	0.014	0.030
33	0.038	0.031	-0.019	-0.056	-0.010
34	-0.001	-0.023	-0.010	0.007	-0.007
35	0.009	0.008	0.003	-0.008	-0.010

36	0.027	-0.039	-0.026	0.022	-0.005
37	0.022	0.056	0.007	0.014	0.025
38	-0.046	0.009	0.010	-0.006	-0.002
39	0.004	0.010	-0.014	-0.068	0.031
40	0.043	0.015	0.022	0.061	-0.047
41	-0.033	0.012	-0.020	0.060	-0.057
42	-0.026	0.049	0.000	-0.045	-0.006
43	0.011	0.002	-0.008	-0.002	-0.084
44	0.043	0.072	0.092	0.068	-0.034
45	-0.010	-0.037	0.033	0.056	0.045
46	0.005	0.047	0.009	0.014	0.041
47	-0.011	0.032	0.017	-0.023	0.015
48	-0.016	-0.044	0.040	-0.013	0.014
49	-0.011	-0.052	0.018	0.022	-0.011
50	-0.038	-0.027	0.046	0.036	0.018
51	0.008	0.014	0.023	0.039	0.016
52	0.081	0.011	-0.018	-0.002	0.019
53	0.017	-0.014	0.008	-0.042	-0.009
54	0.011	0.001	0.004	-0.013	-0.003
55	0.013	-0.018	-0.043	0.004	0.046
56	0.010	0.028	-0.050	-0.008	0.028
57	0.063	-0.004	-0.037	-0.033	0.016
58	-0.049	0.007	0.041	0.051	0.021
59	-0.004	-0.010	0.008	0.010	-0.002
60	0.001	-0.008	-0.092	0.075	0.098

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	1.000				
12	0.230	1.000			
13	-0.017	0.033	1.000		
14	0.020	-0.016	0.316	1.000	
15	0.011	-0.009	0.086	0.333	1.000
16	-0.044	-0.012	-0.150	-0.164	-0.033
17	-0.016	-0.031	-0.055	-0.179	-0.248
18	-0.007	0.027	0.005	-0.009	0.023
19	0.047	0.016	0.104	0.096	0.034
20	-0.027	0.053	-0.015	0.077	0.167
21	-0.035	0.017	-0.069	-0.032	-0.019
22	-0.005	0.018	0.030	0.037	-0.001
23	0.015	0.008	0.197	0.176	0.054
24	0.011	0.035	0.015	0.181	0.150

25	0.009	-0.038	-0.064	-0.068	-0.045
26	0.009	0.007	0.041	0.039	-0.013
27	-0.029	0.008	0.032	0.039	0.031
28	-0.006	0.004	-0.121	-0.180	-0.049
29	0.025	0.010	-0.065	-0.137	-0.198
30	0.000	-0.009	0.023	0.021	0.022
31	0.032	0.000	-0.004	-0.023	-0.039
32	0.034	0.041	0.005	-0.027	-0.079
33	-0.009	-0.075	0.062	0.000	0.048
34	0.006	0.020	0.011	-0.014	-0.008
35	0.005	0.020	-0.018	0.031	-0.001
36	0.039	0.030	-0.001	0.012	0.026
37	0.012	-0.036	0.018	0.031	-0.018
38	0.016	-0.015	0.027	-0.006	-0.018
39	-0.016	0.070	0.027	0.002	-0.033
40	-0.057	-0.028	0.047	0.031	0.038
41	-0.006	-0.069	-0.016	-0.019	0.047
42	-0.041	-0.067	0.010	-0.034	0.053
43	0.008	0.034	-0.007	-0.041	0.032
44	-0.001	-0.023	-0.018	0.038	0.030
45	-0.045	-0.002	-0.011	0.007	0.017
46	-0.013	-0.002	-0.015	-0.045	-0.013
47	-0.024	-0.024	-0.015	0.005	0.008
48	-0.039	-0.018	0.018	0.043	0.006
49	0.018	-0.003	0.063	0.056	0.011
50	-0.029	-0.020	0.016	-0.023	-0.012
51	0.048	-0.007	-0.027	0.014	0.011
52	0.041	0.032	-0.038	-0.032	-0.014
53	0.005	0.000	-0.022	-0.026	-0.007
54	0.021	-0.007	0.007	0.013	-0.031
55	-0.038	0.075	0.043	-0.055	-0.010
56	-0.009	0.036	0.019	0.027	0.002
57	0.006	0.027	0.035	0.039	0.002
58	-0.001	0.003	0.005	-0.022	-0.030
59	0.003	0.039	0.006	0.016	-0.012
60	-0.082	-0.028	0.033	-0.018	0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.235	1.000			
18	-0.184	-0.213	1.000		

19	-0.124	-0.026	0.045	1.000	
20	-0.027	-0.129	-0.017	0.227	1.000
21	0.055	0.090	-0.144	-0.139	-0.172
22	0.003	-0.054	-0.007	0.058	0.178
23	-0.197	-0.062	0.051	0.255	0.070
24	-0.078	-0.182	0.042	0.089	0.254
25	0.162	0.155	-0.269	-0.056	-0.036
26	-0.048	-0.057	0.038	0.092	0.118
27	-0.042	-0.014	0.007	0.031	0.048
28	0.141	0.054	-0.039	-0.189	-0.042
29	0.015	0.159	-0.032	-0.036	-0.203
30	-0.121	-0.159	0.226	0.006	-0.003
31	-0.026	0.028	0.009	-0.072	-0.156
32	0.035	0.077	-0.041	-0.025	-0.050
33	-0.024	-0.044	0.026	0.018	0.011
34	0.015	0.000	0.011	0.019	-0.005
35	-0.062	-0.001	-0.019	0.051	0.004
36	-0.024	-0.002	0.020	0.010	-0.005
37	-0.010	0.020	0.042	-0.020	-0.041
38	-0.015	0.006	-0.003	-0.021	-0.035
39	-0.017	-0.009	0.023	-0.020	-0.031
40	-0.008	-0.025	0.031	0.016	0.052
41	0.023	-0.013	-0.039	-0.020	0.005
42	0.023	-0.044	-0.028	0.014	0.020
43	0.020	0.003	-0.040	0.008	-0.006
44	-0.041	-0.056	-0.007	-0.013	0.007
45	-0.024	-0.037	-0.029	0.037	0.031
46	0.022	0.008	-0.039	-0.001	-0.033
47	0.008	0.006	-0.001	0.032	0.014
48	-0.025	-0.017	0.013	0.001	0.029
49	-0.054	-0.055	-0.033	0.026	0.021
50	-0.011	0.024	-0.002	-0.025	-0.030
51	-0.027	0.001	0.051	0.020	-0.021
52	0.051	0.019	-0.001	0.017	-0.032
53	-0.039	-0.012	0.005	-0.011	0.029
54	0.006	0.016	0.052	0.002	-0.003
55	0.012	-0.002	-0.026	0.001	-0.033
56	0.013	0.029	-0.013	0.012	-0.018
57	-0.007	-0.018	0.006	0.056	0.029
58	0.004	0.028	0.002	-0.017	-0.029
59	-0.003	0.004	-0.020	-0.020	-0.018
60	0.012	-0.011	-0.020	0.014	0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	1.000				
22	-0.152	1.000			
23	-0.097	0.060	1.000		
24	-0.061	0.045	0.247	1.000	
25	0.247	-0.057	-0.180	-0.203	1.000
26	-0.194	0.309	0.110	0.152	-0.159
27	-0.046	0.085	0.171	0.148	-0.252
28	0.035	0.010	-0.293	-0.108	0.057
29	0.031	-0.040	-0.047	-0.278	0.044
30	-0.199	-0.010	0.041	-0.009	-0.239
31	0.157	-0.227	-0.067	-0.074	0.015
32	0.083	-0.046	-0.125	-0.153	0.202
33	-0.043	0.020	0.044	-0.007	0.002
34	-0.013	0.003	-0.009	-0.021	-0.030
35	-0.025	-0.005	0.034	0.008	-0.027
36	0.000	0.003	-0.024	0.013	-0.019
37	0.002	0.033	-0.010	-0.022	-0.023
38	0.008	-0.053	0.031	0.001	-0.010
39	0.004	0.028	-0.010	0.000	-0.013
40	-0.069	0.024	0.027	-0.015	-0.010
41	0.018	-0.032	0.017	-0.012	0.012
42	0.016	-0.014	-0.020	0.012	0.040
43	0.068	-0.013	-0.014	-0.016	0.003
44	0.008	-0.015	0.006	-0.002	-0.014
45	-0.032	0.044	0.025	0.021	-0.019
46	0.004	-0.024	-0.045	-0.049	0.030
47	-0.008	-0.045	0.043	0.025	-0.019
48	0.005	-0.045	0.024	0.017	-0.044
49	0.018	-0.033	0.030	0.001	-0.012
50	0.062	0.000	0.008	0.019	0.013
51	-0.055	0.041	-0.046	-0.026	0.002
52	-0.039	0.062	-0.031	0.016	-0.029
53	-0.078	0.018	-0.040	-0.017	-0.004
54	0.008	-0.009	-0.008	-0.018	0.006
55	0.032	0.009	-0.008	-0.041	-0.036
56	-0.008	0.010	0.068	-0.003	-0.045
57	-0.026	0.011	0.038	-0.003	-0.048
58	0.077	-0.006	-0.037	-0.016	-0.025
59	-0.010	0.009	-0.016	0.038	-0.009
60	0.007	-0.027	0.026	-0.029	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	1.000				
27	0.322	1.000			
28	0.008	0.009	1.000		
29	-0.102	-0.051	0.217	1.000	
30	0.063	0.070	-0.117	-0.155	1.000
31	-0.271	-0.088	0.038	0.104	-0.073
32	-0.255	-0.379	0.128	0.127	-0.203
33	0.042	0.089	-0.078	-0.168	0.201
34	0.000	0.028	0.029	-0.008	0.037
35	-0.015	0.007	0.007	-0.028	0.024
36	0.022	0.034	0.029	0.014	0.023
37	-0.012	-0.023	-0.018	0.022	0.003
38	-0.043	0.001	-0.027	-0.045	0.005
39	0.001	0.025	0.016	0.036	-0.058
40	0.040	-0.003	-0.001	-0.011	0.067
41	-0.006	0.028	-0.004	-0.046	0.001
42	0.029	0.005	-0.010	-0.053	0.004
43	0.047	-0.021	-0.013	-0.075	-0.026
44	-0.031	0.003	0.029	-0.020	-0.008
45	-0.028	0.010	-0.066	-0.035	0.014
46	-0.056	-0.019	-0.023	-0.020	-0.037
47	-0.023	0.008	-0.011	0.008	0.014
48	-0.018	0.010	-0.004	0.012	0.017
49	-0.039	0.023	-0.060	-0.029	0.012
50	-0.027	0.008	0.040	0.045	-0.012
51	-0.008	-0.013	-0.022	-0.003	0.026
52	0.030	0.022	-0.040	0.000	-0.017
53	0.019	-0.002	0.069	-0.001	-0.023
54	-0.048	-0.016	-0.025	0.006	0.024
55	0.005	0.022	0.010	0.021	-0.047
56	0.003	-0.009	-0.038	-0.025	0.024
57	0.013	0.022	-0.110	-0.008	0.013
58	-0.001	0.021	0.026	0.044	-0.028
59	-0.014	0.024	-0.009	-0.007	-0.003
60	0.021	0.004	-0.027	-0.059	0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

31	32	33	34	35

31	1.000				
32	0.282	1.000			
33	-0.257	-0.367	1.000		
34	-0.007	-0.004	0.020	1.000	
35	-0.005	-0.026	0.033	0.267	1.000
36	0.022	-0.022	-0.006	0.140	0.007
37	-0.006	-0.015	-0.014	0.123	-0.011
38	-0.014	0.004	0.010	0.084	0.149
39	0.038	0.027	-0.044	0.011	0.024
40	0.003	-0.022	0.009	-0.033	-0.055
41	-0.022	-0.023	0.002	0.005	0.034
42	-0.002	0.007	0.007	0.019	0.027
43	-0.008	0.002	-0.043	0.014	-0.016
44	0.047	0.020	-0.020	-0.055	0.028
45	0.017	-0.026	0.039	0.050	0.011
46	0.019	0.035	0.014	0.011	-0.024
47	0.026	0.003	-0.001	-0.005	-0.001
48	-0.004	-0.002	-0.048	0.037	-0.001
49	-0.003	-0.042	0.038	0.035	0.032
50	0.005	-0.026	-0.012	-0.017	-0.038
51	-0.001	-0.037	0.033	0.063	0.033
52	0.011	-0.008	0.014	0.003	-0.043
53	0.004	0.000	-0.034	0.016	0.019
54	-0.025	-0.014	0.021	0.022	-0.026
55	-0.004	0.009	0.032	-0.008	0.000
56	0.003	0.018	-0.029	-0.052	0.006
57	0.005	0.039	-0.017	0.027	-0.022
58	0.043	0.003	0.027	-0.015	-0.003
59	-0.028	-0.013	-0.009	-0.046	-0.029
60	-0.013	-0.009	0.012	-0.013	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.325	1.000			
38	-0.193	-0.079	1.000		
39	-0.004	0.009	0.024	1.000	
40	-0.004	0.014	-0.025	-0.281	1.000
41	-0.035	0.011	0.047	-0.206	-0.046
42	-0.002	0.011	0.018	-0.243	0.074
43	-0.023	0.052	-0.008	-0.188	-0.130
44	0.022	-0.036	0.013	-0.100	0.059

45	-0.012	0.014	-0.010	-0.022	0.021
46	-0.036	0.005	0.011	0.025	-0.001
47	-0.042	0.036	0.026	0.054	-0.037
48	0.028	0.007	0.036	-0.035	0.021
49	0.022	-0.012	0.031	-0.028	0.012
50	0.016	0.030	-0.020	-0.002	0.023
51	0.005	0.024	-0.005	0.039	-0.024
52	0.001	-0.031	0.015	0.008	-0.040
53	0.005	-0.020	0.046	0.038	-0.013
54	0.002	0.050	-0.001	-0.021	0.023
55	-0.034	-0.024	-0.008	0.029	-0.041
56	-0.022	0.030	0.005	-0.002	-0.037
57	-0.027	0.041	0.023	0.016	-0.011
58	0.010	-0.028	-0.002	-0.014	-0.011
59	0.029	-0.032	-0.011	-0.002	-0.011
60	-0.030	0.039	-0.022	-0.405	0.599

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.408	1.000			
43	0.438	0.316	1.000		
44	-0.028	-0.008	-0.141	1.000	
45	-0.062	-0.039	-0.026	0.024	1.000
46	-0.018	-0.037	-0.013	0.004	0.387
47	0.002	0.034	-0.002	-0.013	0.119
48	-0.031	0.017	0.018	0.003	0.173
49	-0.013	0.013	-0.004	0.020	0.042
50	-0.013	-0.016	-0.022	-0.001	0.013
51	-0.019	-0.054	-0.028	0.039	0.236
52	0.023	-0.031	-0.024	-0.017	0.047
53	-0.017	0.017	0.000	0.011	0.021
54	-0.016	-0.027	0.004	-0.007	0.038
55	-0.025	-0.070	-0.016	-0.047	0.062
56	0.013	0.003	0.020	-0.013	0.019
57	-0.016	-0.018	-0.006	-0.030	0.000
58	0.002	-0.012	-0.019	-0.027	-0.010
59	-0.004	-0.040	-0.006	0.040	0.035
60	0.552	0.468	0.357	-0.047	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES



	46	47	48	49	50
46	1.000				
47	0.352	1.000			
48	0.036	0.043	1.000		
49	0.126	0.020	0.226	1.000	
50	-0.020	-0.029	0.194	0.053	1.000
51	0.069	-0.033	-0.309	-0.052	-0.081
52	0.122	-0.085	-0.116	-0.344	-0.049
53	-0.011	-0.012	0.094	-0.036	-0.470
54	0.064	0.036	-0.095	0.017	0.162
55	0.133	0.017	-0.189	-0.027	-0.031
56	0.059	0.143	-0.003	-0.200	-0.025
57	0.028	0.031	0.008	0.119	-0.247
58	0.009	-0.028	-0.086	-0.024	0.063
59	0.050	0.015	-0.028	-0.071	0.058
60	-0.015	-0.035	0.004	-0.010	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.291	1.000			
53	0.111	0.044	1.000		
54	0.208	-0.013	-0.475	1.000	
55	-0.067	-0.024	-0.046	0.011	1.000
56	-0.026	-0.080	-0.016	0.021	0.230
57	-0.040	-0.012	-0.037	0.029	0.118
58	0.014	0.101	-0.133	-0.120	0.180
59	0.047	0.006	0.017	0.032	0.087
60	-0.048	-0.004	0.000	-0.013	-0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	-0.011	1.000			
58	-0.021	-0.274	1.000		
59	0.158	-0.243	-0.116	1.000	
60	-0.001	0.006	-0.007	-0.013	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.112	44
200	1.013	38
300	1.008	33
400	1.013	44
500	1.008	4
600	1.003	59
700	1.005	59
800	1.004	59
900	1.003	59
1000	1.002	44

This is the model for reduced psychological distress with linear and curvilinear effects

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	1.000				
PRAFAC	1.000	1.000			
SIZCAT	1.000	1.000	1.000		
FINPRO	1.000	1.000	1.000	1.000	
KNOW	1.000	1.000	1.000	1.000	1.000
MANU	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991
PRAFACSQ	1.000	1.000	1.000	1.000	1.000

	Covariance Coverage				
	MANU	PHY15	KES15	CHOICE15	BULLY15
MANU	1.000				
PHY15	1.000	1.000			
KES15	1.000	1.000	1.000		
CHOICE15	0.990	0.990	0.990	0.990	
BULLY15	0.990	0.990	0.990	0.989	0.990
PRESS15	0.990	0.990	0.990	0.989	0.989
DUTIES15	0.991	0.991	0.991	0.990	0.990
PRAFACSQ	1.000	1.000	1.000	0.990	0.990

	Covariance Coverage		
	PRESS15	DUTIES15	PRAFACSQ
PRESS15	0.990		
DUTIES15	0.990	0.991	
PRAFACSQ	0.990	0.991	1.000

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

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KESCAT16
  Category 1    0.347    386.000
  Category 2    0.653    727.000

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UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PRAFAC	-0.185	0.245	-2.338	1.72%	-1.448	-0.527	-0.318
58.000	1.345	-0.636	2.338	1.72%	0.080	0.752	
SIZCAT	0.483	0.069	0.000	51.72%	0.000	0.000	0.000
58.000	0.250	-1.995	1.000	48.28%	1.000	1.000	
FINPRO	0.379	0.497	0.000	62.07%	0.000	0.000	0.000
58.000	0.235	-1.753	1.000	37.93%	0.000	1.000	
KNOW	0.190	1.583	0.000	81.03%	0.000	0.000	0.000
58.000	0.154	0.507	1.000	18.97%	0.000	0.000	
MANU	0.069	3.402	0.000	93.10%	0.000	0.000	0.000
58.000	0.064	9.574	1.000	6.90%	0.000	0.000	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15	0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15	0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15	0.280	0.978	0.000	71.96%	0.000	0.000	0.000
1102.000	0.202	-1.044	1.000	28.04%	0.000	1.000	
PRESS15	0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15	0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	
PRAFACSQ	0.940	2.150	0.002	0.72%	0.220	0.280	0.469
1113.000	1.309	4.555	5.467	0.36%	0.932	1.171	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR

OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 69

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-24.356 121.589

Posterior Predictive P-Value 0.320

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.160	0.050	0.000	0.055	0.255	*
CHOICE15	0.028	0.039	0.239	-0.046	0.109	
BULLY15	0.111	0.097	0.129	-0.078	0.297	
DUTIES15	-0.082	0.044	0.027	-0.165	0.001	
PRESS15	-0.043	0.040	0.139	-0.121	0.032	
KES15	0.814	0.091	0.000	0.638	1.000	*
KES15 WITH						
PHY15	0.106	0.014	0.000	0.080	0.133	*
CHOICE15	-0.097	0.018	0.000	-0.132	-0.060	*
BULLY15	0.028	0.008	0.000	0.014	0.043	*
PRESS15	0.063	0.019	0.001	0.025	0.098	*
DUTIES15	-0.073	0.018	0.000	-0.109	-0.039	*
PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.153	-0.044	*
BULLY15	0.021	0.012	0.042	-0.002	0.044	

PRESS15	0.119	0.028	0.000	0.067	0.176	*
DUTIES15	-0.058	0.026	0.016	-0.107	-0.005	*
CHOICE15 WITH						
BULLY15	-0.060	0.015	0.000	-0.090	-0.031	*
PRESS15	-0.194	0.035	0.000	-0.265	-0.128	*
DUTIES15	0.150	0.034	0.000	0.081	0.220	*
BULLY15 WITH						
PRESS15	0.116	0.015	0.000	0.088	0.148	*
DUTIES15	-0.087	0.014	0.000	-0.116	-0.062	*
PRESS15 WITH						
DUTIES15	-0.287	0.035	0.000	-0.355	-0.218	*
Means						
PHY15	0.000	0.025	0.499	-0.048	0.049	
KES15	0.001	0.017	0.491	-0.033	0.036	
CHOICE15	-0.001	0.032	0.491	-0.066	0.060	
BULLY15	0.281	0.014	0.000	0.252	0.307	*
PRESS15	-0.001	0.032	0.486	-0.063	0.063	
DUTIES15	0.000	0.030	0.498	-0.059	0.058	
Variances						
PHY15	0.703	0.030	0.000	0.648	0.763	*
KES15	0.314	0.014	0.000	0.289	0.342	*
CHOICE15	1.194	0.050	0.000	1.101	1.301	*
BULLY15	0.203	0.009	0.000	0.188	0.220	*
PRESS15	1.161	0.051	0.000	1.067	1.261	*
DUTIES15	1.031	0.045	0.000	0.952	1.126	*
PRAFACSQ	0.000	0.000	0.000	0.000	0.000	*
Between Level						
KESCAT16 ON						
PRAFAC	-0.137	0.058	0.011	-0.254	-0.020	*
PRAFACSQ	-0.114	0.045	0.003	-0.206	-0.031	*
SIZCAT	-0.045	0.132	0.357	-0.299	0.217	
FINPRO	0.107	0.135	0.203	-0.163	0.377	
KNOW	-0.085	0.186	0.313	-0.444	0.280	
MANU	0.022	0.195	0.449	-0.399	0.367	
PRAFAC WITH						
PRAFACSQ	-0.106	0.240	0.321	-0.606	0.364	

SIZCAT	0.153	0.084	0.017	0.010	0.341	*
FINPRO	0.086	0.080	0.108	-0.059	0.265	
KNOW	0.059	0.067	0.165	-0.065	0.202	
MANU	0.014	0.046	0.371	-0.070	0.107	
PRAFACSQ WITH						
SIZCAT	-0.123	0.112	0.112	-0.351	0.087	
FINPRO	0.007	0.107	0.466	-0.207	0.227	
KNOW	-0.050	0.087	0.267	-0.228	0.122	
MANU	-0.070	0.061	0.103	-0.204	0.040	
SIZCAT WITH						
FINPRO	0.007	0.035	0.428	-0.058	0.082	
KNOW	-0.006	0.028	0.409	-0.063	0.050	
MANU	0.018	0.020	0.153	-0.021	0.063	
FINPRO WITH						
KNOW	-0.071	0.029	0.005	-0.135	-0.020	*
MANU	-0.026	0.020	0.073	-0.069	0.009	
KNOW WITH						
MANU	-0.013	0.016	0.207	-0.044	0.018	
Means						
PRAFAC	-0.181	0.151	0.109	-0.502	0.087	
SIZCAT	0.486	0.070	0.000	0.344	0.623	*
FINPRO	0.378	0.065	0.000	0.253	0.514	*
KNOW	0.188	0.055	0.000	0.080	0.292	*
MANU	0.068	0.037	0.031	-0.004	0.143	
PRAFACSQ	1.375	0.200	0.000	1.005	1.777	*
Thresholds						
KESCAT16\$1	-0.534	0.152	0.000	-0.844	-0.263	*
Variances						
PRAFAC	1.340	0.273	0.000	0.940	1.997	*
SIZCAT	0.268	0.051	0.000	0.190	0.387	*
FINPRO	0.250	0.048	0.000	0.177	0.368	*
KNOW	0.170	0.034	0.000	0.121	0.248	*
MANU	0.081	0.016	0.000	0.057	0.119	*
PRAFACSQ	2.388	0.467	0.000	1.664	3.512	*
Residual Variances						
KESCAT16	0.029	0.037	0.000	0.001	0.131	*



# STANDARDIZED MODEL RESULTS

## STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
Within Level				Lower 2.5%	Upper 2.5%	
KESCAT16 ON						
PHY15	0.119	0.037	0.000	0.042	0.188	*
CHOICE15	0.027	0.038	0.239	-0.045	0.103	
BULLY15	0.044	0.039	0.129	-0.031	0.119	
DUTIES15	-0.073	0.039	0.027	-0.148	0.001	
PRESS15	-0.041	0.038	0.139	-0.116	0.030	
KES15	0.405	0.038	0.000	0.326	0.479	*
KES15 WITH						
PHY15	0.226	0.028	0.000	0.172	0.277	*
CHOICE15	-0.158	0.029	0.000	-0.215	-0.101	*
BULLY15	0.112	0.029	0.000	0.056	0.169	*
PRESS15	0.104	0.030	0.001	0.040	0.159	*
DUTIES15	-0.128	0.030	0.000	-0.186	-0.070	*
PHY15 WITH						
CHOICE15	-0.105	0.030	0.000	-0.166	-0.048	*
BULLY15	0.055	0.031	0.042	-0.006	0.115	
PRESS15	0.132	0.030	0.000	0.075	0.192	*
DUTIES15	-0.068	0.030	0.016	-0.124	-0.006	*
CHOICE15 WITH						
BULLY15	-0.122	0.030	0.000	-0.179	-0.063	*
PRESS15	-0.166	0.029	0.000	-0.223	-0.109	*
DUTIES15	0.136	0.030	0.000	0.074	0.196	*
BULLY15 WITH						
PRESS15	0.239	0.028	0.000	0.186	0.294	*
DUTIES15	-0.191	0.029	0.000	-0.249	-0.134	*
PRESS15 WITH						
DUTIES15	-0.262	0.028	0.000	-0.318	-0.205	*

Means						
PHY15	0.000	0.030	0.499	-0.057	0.058	
KES15	0.001	0.030	0.491	-0.059	0.063	
CHOICE15	-0.001	0.030	0.491	-0.061	0.054	
BULLY15	0.625	0.033	0.000	0.555	0.684	*
PRESS15	-0.001	0.030	0.486	-0.060	0.059	
DUTIES15	0.000	0.030	0.498	-0.058	0.057	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
PRAFACSQ	1.000	0.000	0.000	1.000	1.000	
Between Level						
KESCAT16 ON						
PRAFAC	-0.486	0.195	0.011	-0.838	-0.071	*
PRAFACSQ	-0.541	0.172	0.003	-0.829	-0.165	*
SIZCAT	-0.071	0.208	0.357	-0.450	0.348	
FINPRO	0.169	0.201	0.203	-0.230	0.547	
KNOW	-0.099	0.234	0.313	-0.549	0.366	
MANU	0.021	0.166	0.449	-0.305	0.345	
PRAFAC WITH						
PRAFACSQ	-0.059	0.126	0.321	-0.296	0.197	
SIZCAT	0.259	0.118	0.017	0.017	0.478	*
FINPRO	0.152	0.124	0.108	-0.099	0.388	
KNOW	0.128	0.128	0.165	-0.128	0.372	
MANU	0.044	0.130	0.371	-0.210	0.300	
PRAFACSQ WITH						
SIZCAT	-0.160	0.129	0.112	-0.396	0.114	
FINPRO	0.010	0.131	0.466	-0.247	0.269	
KNOW	-0.083	0.129	0.267	-0.328	0.183	
MANU	-0.161	0.126	0.103	-0.407	0.088	
SIZCAT WITH						
FINPRO	0.027	0.128	0.428	-0.214	0.278	
KNOW	-0.028	0.125	0.409	-0.274	0.219	
MANU	0.129	0.127	0.153	-0.127	0.371	

FINPRO	WITH						
KNOW		-0.351	0.112	0.005	-0.545	-0.109	*
MANU		-0.184	0.124	0.073	-0.425	0.062	
KNOW	WITH						
MANU		-0.112	0.125	0.207	-0.351	0.142	
Means							
PRAFAC		-0.155	0.130	0.109	-0.431	0.073	
SIZCAT		0.940	0.163	0.000	0.617	1.266	*
FINPRO		0.759	0.146	0.000	0.471	1.049	*
KNOW		0.457	0.136	0.000	0.187	0.723	*
MANU		0.241	0.130	0.031	-0.015	0.493	
PRAFACSQ		0.887	0.156	0.000	0.599	1.204	*
Thresholds							
KESCAT16\$1		-1.617	0.539	0.000	-2.793	-0.709	*
Variances							
PRAFAC		1.000	0.000	0.000	1.000	1.000	
SIZCAT		1.000	0.000	0.000	1.000	1.000	
FINPRO		1.000	0.000	0.000	1.000	1.000	
KNOW		1.000	0.000	0.000	1.000	1.000	
MANU		1.000	0.000	0.000	1.000	1.000	
PRAFACSQ		1.000	0.000	0.000	1.000	1.000	
Residual Variances							
KESCAT16		0.274	0.181	0.000	0.025	0.691	*
R-SQUARE							
Within Level							
Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%			
KESCAT16	0.219	0.033	0.000	0.156	0.287		
Between Level							
Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%			

KESCAT16	0.726	0.181	0.000	0.309	0.975
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TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU	KESCAT16
_____	_____
0	

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____	_____
0	0	0	0	0	0

NU	PRESS15	DUTIES15	PRAFACSQ
_____	_____	_____	_____
0	0	0	

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____	_____
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15	PRAFACSQ
_____	_____	_____	_____

KESCAT16	0	0	0
PHY15	0	0	0
KES15	0	0	0
CHOICE15	0	0	0
BULLY15	0	0	0
PRESS15	0	0	0
DUTIES15	0	0	0
PRAFACSQ	0	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	PRAFACSQ
PRESS15	<u>0</u>	<u></u>	<u></u>
DUTIES15	0	0	
PRAFACSQ	0	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA			
	PRESS15	DUTIES15	PRAFACSQ
	<u>5</u>	<u>6</u>	<u>0</u>

BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

BETA

	PRESS15	DUTIES15	PRAFACSQ
KESCAT16	11	12	0
PHY15	0	0	0
KES15	0	0	0
CHOICE15	0	0	0
BULLY15	0	0	0
PRESS15	0	0	0
DUTIES15	0	0	0
PRAFACSQ	0	0	0

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31
PRAFACSQ	0	0	0	0	0

PSI

	PRESS15	DUTIES15	PRAFACSQ
PRESS15	27		
DUTIES15	32	33	
PRAFACSQ	0	0	34

PARAMETER SPECIFICATION FOR BETWEEN

TAU  
KESCAT16  
-----  
69

NU	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	-----	-----	-----	-----	-----
	0	0	0	0	0

NU	MANU	PRAFACSQ
	-----	-----
	0	0

	LAMBDA				
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	-----	-----	-----	-----	-----
KESCAT16	0	0	0	0	0
PRAFAC	0	0	0	0	0
SIZCAT	0	0	0	0	0
FINPRO	0	0	0	0	0
KNOW	0	0	0	0	0
MANU	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

	LAMBDA	
	MANU	PRAFACSQ
	-----	-----
KESCAT16	0	0
PRAFAC	0	0
SIZCAT	0	0
FINPRO	0	0
KNOW	0	0
MANU	0	0

PRAFACSQ	0	0
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THETA					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	0				
PRAFAC	0	0			
SIZCAT	0	0	0		
FINPRO	0	0	0	0	
KNOW	0	0	0	0	0
MANU	0	0	0	0	0
PRAFACSQ	0	0	0	0	0

THETA		
	MANU	PRAFACSQ
MANU	0	
PRAFACSQ	0	0

ALPHA					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	0	35	36	37	38

ALPHA		
	MANU	PRAFACSQ
	39	40

BETA					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	0	41	42	43	44
PRAFAC	0	0	0	0	0
SIZCAT	0	0	0	0	0
FINPRO	0	0	0	0	0
KNOW	0	0	0	0	0
MANU	0	0	0	0	0
PRAFACSQ	0	0	0	0	0



BETA		
	MANU	PRAFACSQ
KESCAT16	45	46
PRAFAC	0	0
SIZCAT	0	0
FINPRO	0	0
KNOW	0	0
MANU	0	0
PRAFACSQ	0	0

PSI					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	47				
PRAFAC	0	48			
SIZCAT	0	49	50		
FINPRO	0	51	52	53	
KNOW	0	54	55	56	57
MANU	0	58	59	60	61
PRAFACSQ	0	63	64	65	66

PSI		
	MANU	PRAFACSQ
MANU	62	
PRAFACSQ	67	68

STARTING VALUES FOR WITHIN

TAU	
	KESCAT16
	0.000

NU					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15

	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
NU					
PRESS15		DUTIES15	PRAFACSQ		
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>		
LAMBDA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000
LAMBDA					
PRESS15		DUTIES15	PRAFACSQ		
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>		
PHY15	0.000	0.000	0.000		
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000		
BULLY15	0.000	0.000	0.000		
PRESS15	1.000	0.000	0.000		
DUTIES15	0.000	1.000	0.000		
PRAFACSQ	0.000	0.000	1.000		
THETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000

PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15	PRAFACSQ
PRESS15	<u>0.000</u>		
DUTIES15	0.000	<u>0.000</u>	
PRAFACSQ	0.000	0.000	<u>0.000</u>

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.280</u>

ALPHA

PRESS15	DUTIES15	PRAFACSQ
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15	PRAFACSQ
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000
KES15	0.000	0.000	0.000

CHOICE15	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.101
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

PSI			
	PRESS15	DUTIES15	PRAFACSQ
PRESS15	<u>0.580</u>	<u>0.000</u>	<u>0.000</u>
DUTIES15	0.000	0.516	
PRAFACSQ	0.000	0.000	0.654

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>-0.352</u>

NU					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU

MANU	PRAFACSQ
<hr/> 0.000	<hr/> 0.000

LAMBDA					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	1.000	0.000	0.000	0.000
SIZCAT	0.000	0.000	1.000	0.000	0.000
FINPRO	0.000	0.000	0.000	1.000	0.000
KNOW	0.000	0.000	0.000	0.000	1.000
MANU	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	MANU	PRAFACSQ
KESCAT16	<hr/> 0.000	<hr/> 0.000
PRAFAC	0.000	0.000
SIZCAT	0.000	0.000
FINPRO	0.000	0.000
KNOW	0.000	0.000
MANU	1.000	0.000
PRAFACSQ	0.000	1.000

THETA					
	KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	<hr/> 0.000	<hr/>	<hr/>	<hr/>	<hr/>
PRAFAC	0.000	0.000			
SIZCAT	0.000	0.000	0.000		
FINPRO	0.000	0.000	0.000	0.000	
KNOW	0.000	0.000	0.000	0.000	0.000
MANU	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

THETA		
	MANU	PRAFACSQ
	<hr/>	<hr/>

MANU	0.000	
PRAFACSQ	0.000	0.000

ALPHA					
KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW	
0.000	-0.033	0.758	0.453	0.077	

ALPHA	
MANU	PRAFACSQ
0.210	0.940

BETA					
KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW	
KESCAT16	0.000	0.000	0.000	0.000	0.000
PRAFAC	0.000	0.000	0.000	0.000	0.000
SIZCAT	0.000	0.000	0.000	0.000	0.000
FINPRO	0.000	0.000	0.000	0.000	0.000
KNOW	0.000	0.000	0.000	0.000	0.000
MANU	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

BETA	
MANU	PRAFACSQ
KESCAT16	0.000
PRAFAC	0.000
SIZCAT	0.000
FINPRO	0.000
KNOW	0.000
MANU	0.000
PRAFACSQ	0.000

PSI				
KESCAT16	PRAFAC	SIZCAT	FINPRO	KNOW
KESCAT16	1.000			

PRAFAC	0.000	0.469			
SIZCAT	0.000	0.000	0.092		
FINPRO	0.000	0.000	0.000	0.124	
KNOW	0.000	0.000	0.000	0.000	0.036
MANU	0.000	0.000	0.000	0.000	0.000
PRAFACSQ	0.000	0.000	0.000	0.000	0.000

	PSI	
	MANU	PRAFACSQ
MANU	0.083	
PRAFACSQ	0.000	0.654

## PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity

Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 40~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 41~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 43~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 44~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 45~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 46~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 47~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 48~IW(1.000,7)	infinity	infinity	infinity
Parameter 49~IW(0.000,7)	infinity	infinity	infinity
Parameter 50~IW(1.000,7)	infinity	infinity	infinity
Parameter 51~IW(0.000,7)	infinity	infinity	infinity
Parameter 52~IW(0.000,7)	infinity	infinity	infinity
Parameter 53~IW(1.000,7)	infinity	infinity	infinity
Parameter 54~IW(0.000,7)	infinity	infinity	infinity
Parameter 55~IW(0.000,7)	infinity	infinity	infinity
Parameter 56~IW(0.000,7)	infinity	infinity	infinity
Parameter 57~IW(1.000,7)	infinity	infinity	infinity
Parameter 58~IW(0.000,7)	infinity	infinity	infinity
Parameter 59~IW(0.000,7)	infinity	infinity	infinity
Parameter 60~IW(0.000,7)	infinity	infinity	infinity
Parameter 61~IW(0.000,7)	infinity	infinity	infinity
Parameter 62~IW(1.000,7)	infinity	infinity	infinity
Parameter 63~IW(0.000,7)	infinity	infinity	infinity
Parameter 64~IW(0.000,7)	infinity	infinity	infinity
Parameter 65~IW(0.000,7)	infinity	infinity	infinity
Parameter 66~IW(0.000,7)	infinity	infinity	infinity
Parameter 67~IW(0.000,7)	infinity	infinity	infinity
Parameter 68~IW(1.000,7)	infinity	infinity	infinity
Parameter 69~N(0.000,5.000)	0.0000	5.0000	2.2361



TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.626486D-03				
2	0.990566D-04	0.292663D-03			
3	-0.768293D-04	-0.987447D-04	0.104693D-02		
4	0.211686D-04	0.215140D-04	-0.440617D-04	0.188089D-03	
5	0.103302D-03	0.436597D-04	-0.158732D-03	0.104874D-03	0.102932D-02
6	-0.502204D-04	-0.611261D-04	0.125108D-03	-0.870284D-04	-0.233913D-03
7	-0.140256D-05	0.275624D-04	-0.281159D-04	0.796646D-05	0.634558D-04
8	-0.705481D-04	-0.402940D-04	-0.846679D-04	-0.160399D-05	-0.227237D-04
9	-0.671055D-05	-0.179092D-05	-0.603266D-04	-0.200844D-04	-0.521617D-04
10	0.463099D-05	-0.106592D-04	0.155166D-03	-0.213307D-04	-0.111184D-03
11	-0.720958D-05	-0.162913D-04	0.812813D-04	-0.285958D-04	-0.526655D-04
12	0.295909D-05	-0.896995D-05	0.770053D-04	-0.197534D-04	-0.855932D-07
13	0.498086D-05	0.201621D-04	-0.112947D-04	0.302314D-05	-0.242167D-04
14	0.178489D-04	0.401813D-06	0.304249D-05	0.328392D-05	0.361903D-06
15	0.731822D-05	0.512150D-05	0.522076D-05	0.108630D-04	-0.115106D-04
16	-0.948960D-05	-0.768966D-05	0.179948D-04	0.879318D-05	0.513844D-05
17	0.141744D-04	-0.289637D-05	0.319107D-04	-0.153605D-05	-0.240980D-05
18	-0.173580D-04	0.676575D-05	-0.190328D-05	0.134122D-04	0.340574D-04
19	0.911747D-05	-0.418319D-05	0.190185D-04	0.627403D-05	-0.410108D-05
20	-0.716939D-07	0.260587D-05	-0.104750D-04	0.395073D-05	-0.582550D-05
21	-0.853635D-06	0.391184D-05	-0.814375D-05	0.181639D-05	0.271227D-04
22	0.373139D-05	0.814831D-06	0.514027D-06	0.973606D-06	-0.481487D-05
23	0.683267D-06	-0.278620D-04	-0.200229D-04	-0.164617D-04	-0.205148D-04
24	-0.151029D-04	0.166087D-05	-0.203381D-04	0.260586D-05	-0.511117D-05
25	0.210042D-04	0.196048D-04	-0.683155D-04	0.185685D-04	0.360414D-04
26	0.444225D-05	0.247483D-05	0.457990D-05	0.458078D-05	0.298060D-05
27	-0.267324D-05	-0.305858D-04	-0.343439D-05	-0.333974D-04	-0.382609D-04
28	-0.505785D-05	0.422509D-05	0.423620D-05	0.207643D-04	0.197671D-04
29	0.108186D-04	0.160371D-05	0.835306D-05	0.388419D-05	0.178197D-05
30	-0.345637D-04	0.816034D-05	0.696226D-04	-0.860667D-06	-0.272331D-04
31	0.659714D-06	0.812351D-06	0.962038D-05	0.948522D-05	0.177179D-04
32	0.105519D-04	-0.124552D-04	0.137378D-04	0.876782D-05	0.813230D-05
33	-0.287857D-04	-0.102705D-04	-0.124248D-04	-0.438286D-04	-0.741860D-04
34	0.114217D-08	0.197341D-08	-0.919920D-08	0.301171D-09	0.215538D-08
35	0.906452D-04	-0.610916D-04	-0.841975D-05	-0.448868D-04	0.365412D-04
36	-0.372562D-04	-0.673572D-04	0.655886D-04	-0.245668D-04	-0.670198D-04
37	0.781892D-05	-0.570620D-04	0.843790D-04	0.182309D-04	-0.152643D-04

38	0.100055D-04	0.247451D-04	-0.152675D-04	0.556238D-05	-0.275439D-05
39	-0.243043D-05	-0.265779D-04	0.109746D-04	-0.164705D-04	0.346520D-04
40	-0.228559D-03	0.474875D-04	0.175695D-03	-0.801246D-04	-0.138673D-03
41	0.566652D-05	0.249387D-04	0.471747D-04	-0.139632D-04	-0.466375D-04
42	-0.105541D-03	-0.110441D-04	-0.429111D-06	0.329602D-04	0.229162D-04
43	0.324238D-04	0.591972D-04	-0.106958D-03	0.769427D-04	-0.236289D-04
44	0.680914D-04	0.108781D-03	0.151559D-04	0.120931D-03	0.266016D-03
45	-0.772920D-05	0.101706D-03	-0.137314D-03	0.413500D-04	0.103191D-03
46	-0.423634D-04	-0.755962D-05	-0.371555D-04	0.243442D-05	0.293072D-04
47	-0.438912D-05	0.304699D-05	0.384904D-04	-0.237949D-04	-0.305674D-04
48	0.396478D-04	0.877655D-04	0.235558D-03	-0.390093D-04	0.289883D-04
49	-0.499045D-04	-0.444562D-04	-0.711636D-04	-0.741377D-05	0.110471D-04
50	0.197151D-04	-0.135168D-04	0.367586D-04	-0.324986D-05	0.248330D-04
51	-0.380557D-04	0.143166D-04	-0.233714D-05	-0.377299D-04	-0.745300D-04
52	-0.710604D-04	-0.310095D-04	0.916368D-05	0.105061D-05	-0.321375D-04
53	-0.106017D-04	-0.806484D-06	0.437242D-04	-0.728177D-05	-0.372796D-04
54	0.172614D-04	-0.206253D-05	-0.615373D-04	0.631553D-05	0.914132D-05
55	0.436152D-04	-0.445518D-05	-0.215324D-04	0.915900D-05	0.281712D-04
56	0.470276D-04	-0.525585D-05	-0.233910D-05	0.104870D-04	0.239365D-05
57	-0.356806D-04	0.761941D-05	-0.961755D-05	-0.100744D-04	0.948699D-05
58	-0.567046D-07	-0.623204D-04	0.437930D-04	0.129310D-04	0.611826D-04
59	0.126440D-04	-0.109047D-04	0.109946D-04	0.242869D-05	0.719614D-05
60	-0.208649D-04	-0.126228D-04	-0.771271D-05	0.327254D-05	0.172513D-04
61	0.530539D-05	-0.997797D-05	0.251288D-05	-0.244988D-05	0.833050D-05
62	-0.908775D-05	-0.685851D-05	0.151983D-04	-0.155267D-05	-0.140840D-04
63	0.260991D-03	0.158109D-03	-0.872820D-04	0.105448D-05	-0.485098D-05
64	0.406706D-05	-0.418585D-06	-0.521133D-04	0.705149D-04	0.124451D-05
65	0.106253D-03	0.269098D-04	-0.377297D-04	0.318831D-05	0.160896D-04
66	0.207042D-04	0.345452D-05	0.130478D-03	0.178428D-04	-0.398775D-04
67	-0.431965D-04	0.380120D-04	-0.787805D-04	0.541920D-05	0.428061D-04
68	-0.970306D-04	-0.503751D-03	0.596317D-03	-0.313017D-03	-0.861673D-03
69	-0.167976D-04	0.257811D-04	-0.100367D-03	0.789066D-04	0.871835D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	0.905034D-03				
7	0.980454D-05	0.253525D-02			
8	0.653060D-04	-0.303955D-03	0.833211D-02		
9	0.454764D-04	0.114334D-03	0.390614D-03	0.155032D-02	
10	0.519569D-04	-0.114299D-03	-0.207775D-03	0.252027D-03	0.946530D-02
11	0.315305D-04	-0.246916D-03	-0.630701D-04	0.158365D-03	-0.643093D-03
12	-0.773256D-05	-0.450694D-04	0.316949D-03	-0.133413D-03	0.635563D-03

13	0.937556D-05	-0.182158D-04	-0.309185D-04	-0.994349D-05	-0.377186D-04
14	-0.962582D-05	-0.939637D-06	-0.119792D-04	0.242483D-04	0.309121D-04
15	0.340807D-05	0.570961D-05	-0.138533D-04	0.144660D-04	0.422055D-04
16	0.296101D-05	0.217457D-04	0.319961D-04	0.688331D-05	0.264576D-04
17	-0.244536D-04	0.131158D-04	0.826400D-05	-0.145187D-04	-0.190430D-04
18	0.151628D-04	-0.331550D-04	0.339894D-04	0.435542D-04	-0.516163D-04
19	0.881224D-05	0.225326D-04	-0.107363D-04	0.182268D-04	0.181499D-04
20	0.221090D-05	0.296566D-05	0.105534D-04	0.110894D-04	-0.268377D-04
21	-0.167001D-04	-0.303137D-04	0.162627D-04	-0.148739D-04	-0.538266D-04
22	-0.109924D-04	-0.111572D-04	0.285560D-04	0.176864D-05	-0.172481D-04
23	0.194958D-04	0.117136D-04	0.689738D-04	0.206844D-04	-0.135219D-04
24	0.525058D-05	0.467183D-05	-0.151744D-04	0.190578D-05	-0.593730D-05
25	-0.324291D-04	-0.700401D-04	-0.294636D-04	0.146295D-04	0.144553D-04
26	-0.959001D-05	0.322585D-05	0.459846D-04	0.221551D-04	-0.138143D-04
27	0.996815D-04	0.211194D-04	0.226962D-03	-0.493987D-04	0.690173D-04
28	-0.333314D-04	-0.725515D-04	-0.389811D-04	-0.721871D-04	-0.132246D-03
29	0.618160D-07	-0.721641D-05	0.260365D-04	-0.225109D-04	-0.919593D-04
30	0.385317D-04	0.578321D-04	-0.470533D-04	0.412608D-04	-0.717322D-04
31	0.264011D-05	-0.521335D-06	0.241595D-04	-0.172382D-05	-0.725842D-05
32	-0.315620D-04	-0.108659D-03	0.126188D-03	-0.499721D-04	0.504092D-04
33	0.145314D-04	0.171045D-04	-0.129404D-03	0.157749D-04	-0.200754D-04
34	-0.991157D-08	-0.110065D-07	-0.161869D-07	-0.208703D-08	0.180385D-08
35	0.101286D-03	0.187559D-03	0.232464D-03	-0.196993D-03	-0.146652D-03
36	0.740750D-04	-0.925366D-04	0.109067D-03	0.484473D-04	-0.491412D-04
37	0.217071D-04	0.320305D-04	0.840466D-04	-0.358656D-04	0.227215D-04
38	-0.228793D-04	0.153244D-03	-0.145462D-03	0.196423D-04	-0.324694D-03
39	-0.677809D-05	-0.280416D-04	-0.301356D-04	-0.449011D-04	-0.132674D-03
40	0.655959D-04	-0.982259D-04	0.349536D-03	-0.171799D-03	0.533348D-03
41	0.531945D-04	0.124617D-04	0.117683D-03	-0.168351D-03	0.555132D-04
42	-0.144219D-03	0.107378D-03	0.540193D-04	0.218668D-03	0.336348D-03
43	-0.547373D-04	0.239743D-03	0.265206D-03	0.338337D-03	-0.692296D-03
44	0.565744D-04	-0.668742D-04	-0.258436D-03	-0.293165D-03	0.617469D-03
45	0.318865D-04	-0.235059D-03	-0.713630D-03	0.746062D-04	-0.243842D-02
46	-0.558474D-04	-0.104490D-03	-0.254942D-03	-0.194891D-04	-0.308758D-04
47	0.435134D-04	0.258686D-04	0.431135D-03	0.461518D-04	0.100553D-03
48	-0.108787D-03	0.761481D-04	-0.114068D-02	0.257770D-04	-0.110099D-03
49	-0.107000D-04	-0.292500D-04	0.836005D-04	0.972586D-04	0.254302D-04
50	-0.265221D-04	-0.146739D-04	0.269551D-04	-0.306110D-04	0.149316D-03
51	-0.657161D-05	0.229066D-03	0.396147D-04	-0.112525D-03	-0.327640D-05
52	0.385032D-04	0.554761D-04	0.464004D-04	-0.894651D-04	-0.958882D-04
53	0.575643D-05	0.928483D-04	0.517564D-04	-0.100623D-03	-0.244495D-03
54	-0.445200D-04	0.220578D-04	-0.952654D-04	-0.109572D-04	0.148761D-04
55	-0.601207D-05	-0.126533D-04	0.170800D-04	0.259730D-04	0.247573D-04
56	0.139913D-04	-0.259346D-05	0.910903D-04	0.349733D-04	-0.293124D-05

57	-0.529619D-04	0.258589D-04	-0.386280D-04	-0.227618D-04	0.123704D-03
58	-0.971762D-05	-0.784533D-04	-0.146286D-03	-0.247511D-04	0.155851D-04
59	-0.230649D-04	-0.116942D-04	0.495455D-05	0.281284D-04	0.745032D-04
60	-0.122429D-04	0.339498D-04	-0.358072D-04	0.179587D-04	0.769941D-04
61	0.121130D-04	0.668858D-05	-0.211579D-04	0.170709D-04	-0.444578D-04
62	-0.510162D-05	-0.393766D-04	-0.379420D-04	-0.362309D-04	-0.300231D-04
63	0.264340D-03	-0.327962D-03	-0.578285D-03	0.141558D-03	-0.354040D-03
64	0.370795D-04	0.123431D-03	-0.444873D-03	0.107495D-03	-0.215377D-03
65	0.190510D-04	-0.167206D-03	0.506812D-03	-0.106122D-04	0.824204D-05
66	0.330577D-04	-0.223910D-03	-0.371927D-03	0.353467D-05	-0.730501D-04
67	0.507199D-04	0.106992D-04	0.184676D-03	-0.350229D-04	-0.142627D-03
68	0.229502D-03	-0.506466D-05	0.435237D-03	0.343891D-04	-0.924012D-03
69	-0.120862D-03	-0.135198D-03	-0.152973D-02	0.236729D-03	0.188798D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.161188D-02				
12	0.306297D-03	0.191554D-02			
13	0.265966D-04	0.560537D-05	0.873328D-03		
14	0.215391D-04	-0.158345D-05	0.124577D-03	0.198407D-03	
15	0.273995D-04	-0.118488D-04	0.346346D-04	0.645665D-04	0.184492D-03
16	-0.574633D-04	-0.401977D-04	-0.132120D-03	-0.756318D-04	-0.325345D-04
17	-0.197820D-04	-0.146554D-04	-0.352161D-05	-0.250157D-04	-0.479697D-04
18	0.172829D-04	-0.115333D-03	0.242795D-04	0.226506D-05	0.410756D-05
19	-0.674342D-05	-0.642071D-06	0.324419D-04	0.233959D-04	0.394181D-05
20	0.161789D-04	-0.692599D-05	0.114381D-05	0.911006D-05	0.156445D-04
21	0.243272D-04	0.126871D-05	-0.205475D-04	-0.117431D-04	-0.587798D-05
22	0.757823D-05	0.153220D-04	0.189313D-05	0.204225D-05	0.154567D-05
23	0.236666D-04	0.185347D-04	0.234902D-03	0.714125D-04	0.270157D-04
24	-0.147408D-04	-0.102602D-04	0.133838D-04	0.380529D-04	0.378489D-04
25	-0.732548D-05	0.171986D-04	-0.438867D-04	-0.368440D-04	-0.205435D-04
26	0.169388D-04	0.885540D-05	0.711893D-06	0.463876D-05	0.254452D-06
27	-0.161771D-04	0.362260D-04	0.257188D-04	0.893018D-05	0.478519D-05
28	0.247947D-04	0.115705D-04	-0.104442D-03	-0.499081D-04	-0.163212D-04
29	0.368348D-05	0.371227D-04	-0.115548D-04	-0.307406D-04	-0.490136D-04
30	0.283412D-04	-0.812534D-04	0.379447D-04	0.200394D-04	0.110718D-04
31	-0.165176D-04	-0.208181D-04	-0.188916D-05	-0.325992D-07	0.682279D-05
32	-0.637800D-04	0.408956D-05	0.128110D-04	-0.657699D-05	-0.175481D-04
33	0.195510D-04	0.248157D-04	0.103437D-04	0.112392D-04	0.117535D-04
34	0.918170D-08	0.563825D-08	0.654579D-11	-0.698342D-09	-0.696817D-08
35	-0.187645D-03	0.663512D-04	-0.122882D-03	-0.787026D-04	-0.577634D-04
36	-0.413369D-04	-0.410170D-04	-0.469424D-04	0.143460D-04	0.202758D-04

37	-0.744164D-04	-0.135764D-06	-0.440369D-04	-0.355446D-04	-0.384488D-05
38	0.100027D-03	0.724525D-04	0.893093D-04	0.386065D-04	-0.115657D-04
39	-0.106354D-04	-0.544903D-04	0.153099D-04	0.234045D-06	-0.911371D-05
40	0.165927D-03	-0.118955D-03	-0.252035D-04	-0.130050D-03	-0.580992D-04
41	0.279796D-04	0.168058D-04	0.673638D-04	0.104714D-04	-0.130697D-04
42	-0.465961D-03	0.228547D-03	-0.897960D-04	0.818155D-05	0.281269D-04
43	-0.235052D-03	-0.479787D-04	-0.273444D-04	-0.565289D-05	-0.450102D-04
44	-0.289259D-03	-0.215263D-03	-0.142936D-03	-0.119223D-03	-0.125567D-04
45	0.167341D-04	-0.381475D-03	-0.461272D-04	-0.107545D-03	-0.476444D-04
46	0.113114D-04	-0.315823D-04	0.146634D-04	-0.445414D-05	-0.167408D-04
47	-0.596699D-05	0.421460D-04	-0.248780D-04	-0.492866D-05	0.673649D-05
48	0.231484D-03	0.451083D-03	0.172818D-04	-0.554870D-04	0.388949D-04
49	0.201101D-05	0.293390D-04	0.886361D-05	0.190266D-04	0.438032D-04
50	-0.468084D-04	-0.175030D-04	0.244922D-04	0.702284D-05	-0.114903D-07
51	-0.149556D-03	0.225409D-03	-0.681576D-05	0.325516D-04	-0.643278D-05
52	-0.166643D-04	-0.127397D-04	0.286124D-05	0.120058D-04	0.822229D-05
53	-0.272041D-04	0.510141D-04	0.708790D-05	0.256051D-05	-0.179523D-04
54	0.755941D-04	-0.455675D-04	-0.181464D-04	-0.463429D-04	-0.332477D-04
55	-0.137505D-04	-0.135411D-04	-0.376037D-04	-0.121516D-04	-0.967570D-05
56	0.210463D-04	-0.168380D-04	-0.133620D-04	-0.160930D-04	-0.381881D-05
57	0.587428D-05	0.413080D-04	-0.643699D-05	-0.280066D-05	-0.903477D-05
58	-0.175827D-04	-0.602525D-04	-0.887918D-05	0.324162D-04	0.213396D-04
59	-0.724008D-05	0.424244D-05	0.140070D-04	0.538997D-05	0.297667D-05
60	-0.246290D-04	-0.438173D-04	0.249992D-04	0.503248D-05	0.629096D-06
61	-0.155384D-04	0.555123D-05	-0.631870D-05	0.402946D-05	-0.519108D-05
62	0.129828D-04	0.834917D-05	-0.863204D-05	0.332075D-05	0.551378D-05
63	0.444956D-03	0.282017D-03	-0.174406D-03	-0.163537D-04	-0.444813D-05
64	0.300643D-03	-0.690272D-04	-0.468470D-04	0.250219D-04	-0.371603D-04
65	0.896943D-04	0.120128D-03	0.147761D-03	0.298299D-04	-0.166187D-04
66	-0.253015D-04	-0.711620D-04	-0.109952D-03	-0.630438D-04	-0.172054D-04
67	0.690372D-04	-0.375391D-04	-0.101313D-03	-0.576853D-05	-0.974798D-06
68	-0.748892D-04	0.437379D-04	0.168622D-03	-0.524415D-04	-0.755521D-04
69	-0.553603D-03	0.291347D-03	-0.110081D-03	-0.417996D-04	0.153899D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.790932D-03				
17	0.131829D-03	0.337632D-03			
18	-0.222476D-03	-0.194795D-03	0.253485D-02		
19	-0.592606D-04	-0.871242D-05	0.160116D-04	0.138317D-03	
20	-0.832902D-05	-0.205697D-04	0.222003D-04	0.237222D-04	0.574639D-04
21	0.448759D-04	0.357981D-04	-0.146160D-03	-0.175666D-04	-0.177255D-04

22	-0.682042D-05	-0.172113D-05	0.342516D-04	0.102484D-04	0.996753D-05
23	-0.166398D-03	-0.304919D-04	0.625455D-04	0.826964D-04	0.876532D-05
24	-0.242864D-04	-0.545596D-04	0.437467D-04	0.108791D-04	0.307847D-04
25	0.137021D-03	0.898309D-04	-0.424893D-03	-0.151260D-04	-0.100973D-04
26	0.153645D-04	-0.364623D-05	0.436617D-04	0.224168D-04	0.175219D-04
27	-0.338977D-04	-0.276335D-04	0.168352D-04	0.280525D-04	0.178113D-04
28	0.822354D-04	-0.359069D-05	0.192478D-05	-0.491301D-04	-0.202031D-05
29	0.217829D-04	0.549746D-04	-0.514116D-05	-0.328390D-05	-0.252179D-04
30	-0.103708D-03	-0.891874D-04	0.379067D-03	0.149645D-04	0.449278D-05
31	0.103630D-04	0.801181D-05	-0.259011D-04	-0.175338D-04	-0.159909D-04
32	0.485125D-04	0.395481D-04	-0.389462D-04	-0.113865D-04	-0.167881D-04
33	-0.366619D-04	-0.254747D-04	0.170149D-04	-0.955089D-05	0.162395D-04
34	0.205021D-08	0.256745D-08	0.198206D-07	0.923455D-09	-0.206385D-08
35	-0.113778D-03	0.135746D-03	-0.123210D-03	0.265152D-04	0.251812D-04
36	0.471772D-04	0.648266D-04	-0.258292D-04	0.809802D-05	0.148116D-05
37	0.248760D-05	0.264920D-04	-0.149170D-03	0.207642D-04	-0.135026D-04
38	-0.626583D-04	0.149853D-04	0.381464D-04	0.110227D-04	-0.479940D-06
39	-0.215861D-04	-0.861143D-05	0.881752D-04	0.453704D-05	0.367433D-06
40	0.106971D-03	0.906889D-04	0.239557D-03	-0.401436D-04	-0.149648D-04
41	0.606623D-05	0.101025D-04	-0.922594D-04	-0.664129D-05	-0.160019D-04
42	-0.998978D-04	0.468213D-04	-0.184784D-03	0.201667D-04	-0.136538D-05
43	0.271534D-04	0.148552D-04	0.836780D-04	0.812430D-04	0.305383D-04
44	0.102439D-05	0.448437D-05	-0.259441D-03	-0.691444D-04	0.548645D-04
45	0.599630D-05	0.419230D-04	0.527637D-03	-0.290658D-04	0.575217D-04
46	-0.379132D-04	0.194594D-04	0.140995D-04	0.179689D-05	0.117326D-04
47	0.344236D-04	-0.151188D-04	-0.160961D-04	-0.120362D-04	-0.131590D-04
48	0.237212D-03	0.311739D-04	0.235330D-03	0.393959D-04	0.544372D-04
49	-0.108551D-04	0.176854D-04	0.147326D-03	-0.992370D-05	-0.123635D-04
50	0.609905D-05	0.879750D-05	0.520199D-04	-0.532554D-05	-0.609756D-05
51	0.208402D-04	-0.567345D-05	-0.160264D-03	-0.191572D-04	-0.634728D-05
52	0.114924D-04	0.755809D-05	-0.102316D-04	-0.144962D-04	-0.130876D-04
53	0.199234D-04	-0.116853D-04	-0.263011D-05	-0.953386D-06	0.148934D-04
54	0.582167D-04	-0.178419D-04	-0.297605D-04	0.337337D-05	0.229901D-04
55	-0.766953D-05	0.265771D-04	0.331653D-04	0.120267D-04	0.468947D-05
56	0.150144D-04	0.444174D-05	-0.310886D-04	-0.933861D-05	0.147653D-05
57	-0.442235D-05	0.713295D-05	-0.145072D-04	-0.933839D-05	-0.990530D-06
58	-0.306343D-04	0.660599D-05	0.193014D-04	0.186923D-04	0.343860D-05
59	-0.292947D-04	-0.134212D-04	0.123984D-04	0.166512D-06	0.212392D-05
60	-0.556506D-05	0.214185D-04	-0.801194D-05	0.343051D-05	0.141999D-05
61	0.337261D-06	0.758954D-05	0.733006D-05	0.161079D-05	-0.216084D-05
62	0.593733D-06	-0.950632D-05	0.667343D-05	-0.506362D-05	-0.546133D-05
63	0.127370D-03	0.128058D-03	0.909636D-04	-0.435407D-04	0.256609D-04
64	-0.249556D-04	-0.415024D-04	-0.357103D-04	-0.376821D-06	0.519335D-04
65	0.560436D-04	0.142697D-04	-0.551832D-04	0.136779D-04	0.244011D-05

66	0.727771D-04	0.564568D-04	0.307407D-04	-0.180275D-04	-0.658224D-05
67	-0.310544D-05	0.158797D-04	0.661896D-06	-0.150040D-04	0.551295D-05
68	-0.222467D-03	-0.428953D-05	0.403761D-03	0.209586D-03	-0.128480D-03
69	-0.177427D-04	0.575985D-04	-0.648547D-04	0.298336D-04	0.315791D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.230387D-03				
22	-0.222239D-04	0.733733D-04			
23	-0.230377D-04	0.665704D-05	0.811169D-03		
24	-0.918729D-05	0.669907D-05	0.107141D-03	0.352119D-03	
25	0.136202D-03	-0.163926D-04	-0.160730D-03	-0.128616D-03	0.124794D-02
26	-0.459300D-04	0.434390D-04	0.407303D-04	0.363647D-04	-0.849445D-04
27	-0.299499D-04	0.181015D-04	0.346220D-03	0.129977D-03	-0.381286D-03
28	0.348228D-06	-0.737699D-05	-0.217819D-03	-0.478216D-04	0.584171D-04
29	0.146537D-04	-0.108321D-05	-0.245635D-04	-0.970584D-04	0.675402D-04
30	-0.119874D-03	-0.268416D-05	0.671378D-04	0.264870D-04	-0.349096D-03
31	0.385496D-04	-0.356862D-04	-0.277121D-05	-0.118639D-04	0.361910D-04
32	0.285842D-04	-0.199245D-04	-0.100692D-03	-0.895135D-04	0.252546D-03
33	-0.403673D-04	0.167692D-04	0.112368D-04	0.555859D-04	-0.169755D-03
34	-0.285771D-08	-0.378694D-08	0.522834D-08	-0.281585D-08	-0.992450D-08
35	0.837628D-05	-0.128117D-04	-0.123322D-03	-0.405545D-04	0.146936D-03
36	-0.130740D-04	-0.638242D-05	-0.114299D-04	0.650988D-05	-0.101341D-03
37	0.204017D-05	0.103762D-04	0.711877D-04	0.468945D-05	-0.944139D-05
38	-0.339945D-04	-0.163868D-05	0.954260D-05	-0.189270D-04	0.302766D-04
39	0.917810D-05	-0.873268D-05	-0.126652D-04	-0.211705D-06	-0.378268D-04
40	0.111364D-03	-0.653539D-04	-0.147780D-03	-0.190376D-03	0.239576D-03
41	0.503799D-04	-0.103127D-04	0.366913D-04	-0.119195D-04	-0.392382D-05
42	-0.866911D-05	0.209151D-04	0.289358D-04	0.262845D-04	-0.210347D-04
43	0.226236D-04	-0.752150D-05	-0.137894D-03	-0.827429D-04	0.486933D-04
44	-0.422755D-04	0.512899D-05	-0.109125D-03	0.789811D-04	-0.487608D-04
45	-0.643714D-04	0.705569D-05	-0.189711D-03	0.647574D-04	-0.171114D-03
46	-0.116581D-04	0.649036D-05	0.382446D-05	-0.621458D-05	-0.197880D-05
47	0.238643D-04	-0.100927D-04	-0.364975D-06	-0.251850D-04	0.206475D-04
48	-0.690810D-04	-0.447450D-04	-0.297249D-03	0.140844D-03	0.389541D-04
49	-0.697983D-05	-0.245384D-04	-0.123339D-03	0.147423D-04	-0.261695D-05
50	0.126482D-04	0.550653D-05	-0.336385D-04	-0.213945D-04	0.282271D-04
51	-0.379395D-04	-0.509904D-04	-0.233092D-04	-0.184329D-04	0.961456D-05
52	0.748870D-05	-0.275222D-04	-0.375953D-04	-0.832416D-05	0.119280D-04
53	-0.273831D-05	-0.296473D-05	0.411179D-05	-0.117005D-04	0.255741D-04
54	0.126807D-04	0.308318D-04	0.679626D-04	0.205939D-04	-0.100014D-04
55	-0.458667D-05	0.509646D-05	0.252997D-04	-0.150006D-05	0.955748D-05

56	0.860255D-05	0.126848D-05	0.138743D-04	0.526918D-05	0.895167D-05
57	0.150139D-04	0.771057D-05	0.165603D-04	-0.245606D-05	-0.299928D-04
58	-0.199687D-04	-0.201809D-04	-0.344550D-04	0.177202D-04	-0.722039D-04
59	-0.678096D-05	0.313162D-05	-0.399751D-06	0.148979D-04	-0.229620D-04
60	-0.109006D-04	-0.510471D-05	-0.623663D-05	-0.454562D-05	-0.182780D-04
61	-0.382132D-05	-0.713588D-05	0.148830D-04	-0.212886D-05	-0.201053D-05
62	0.453546D-05	-0.393951D-05	0.138344D-04	0.147157D-04	-0.290077D-04
63	0.710245D-04	0.330958D-05	0.230189D-04	0.112034D-03	0.339850D-03
64	0.232269D-04	-0.179047D-04	-0.732284D-04	-0.227877D-04	0.191381D-03
65	-0.168102D-04	0.195915D-04	0.181055D-04	-0.173256D-04	0.979370D-05
66	-0.529313D-04	-0.586348D-05	-0.517547D-04	0.603878D-04	-0.815728D-04
67	-0.105297D-04	-0.859680D-05	-0.610068D-04	-0.416907D-04	0.841434D-04
68	0.363916D-03	-0.189789D-03	0.906109D-04	0.897761D-04	-0.134310D-03
69	-0.476314D-04	0.259226D-04	-0.611660D-04	0.203406D-04	-0.492980D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.219065D-03				
27	0.266056D-03	0.257705D-02			
28	-0.161048D-04	-0.954230D-04	0.665077D-03		
29	-0.729477D-05	-0.466755D-04	0.103309D-03	0.306364D-03	
30	0.186535D-04	0.900089D-04	-0.659198D-04	-0.961579D-04	0.118684D-02
31	-0.688723D-04	-0.610688D-04	0.244069D-04	0.244928D-04	-0.726496D-04
32	-0.116461D-03	-0.659789D-03	0.159568D-03	0.985302D-04	-0.274997D-03
33	0.677464D-04	0.184861D-03	-0.944684D-04	-0.141866D-03	0.336993D-03
34	-0.340014D-08	-0.918081D-08	0.560273D-08	0.313482D-08	0.128618D-07
35	0.457282D-04	0.377978D-05	0.112140D-04	0.112142D-03	-0.661654D-04
36	0.585622D-05	0.105409D-04	-0.957882D-04	-0.981334D-05	0.370547D-04
37	0.443614D-04	0.108620D-03	0.125476D-04	0.939050D-06	-0.131227D-04
38	-0.569369D-05	-0.424592D-04	-0.992546D-05	0.238808D-04	0.220899D-04
39	-0.146402D-04	-0.431859D-04	-0.148762D-04	-0.264700D-05	-0.102474D-04
40	-0.673629D-05	0.871935D-04	0.466751D-05	0.236702D-03	-0.470773D-04
41	-0.922505D-05	0.127061D-03	0.563705D-04	0.149578D-04	0.165870D-04
42	0.609923D-04	-0.767515D-04	-0.103972D-05	-0.259102D-04	-0.658889D-04
43	-0.704273D-05	-0.872403D-04	-0.631324D-04	-0.129138D-05	-0.367526D-04
44	0.864506D-06	0.411282D-03	0.146989D-03	-0.409444D-04	-0.181262D-04
45	-0.594662D-04	-0.223916D-03	0.155137D-03	0.777038D-04	-0.211816D-03
46	0.660733D-05	-0.108899D-04	-0.321211D-05	0.144410D-04	-0.894726D-05
47	0.806774D-05	0.220898D-04	-0.248984D-04	0.528177D-05	0.312664D-04
48	0.161015D-05	-0.955666D-03	0.113443D-03	0.250919D-04	0.872593D-04
49	0.375553D-05	-0.252615D-03	-0.437046D-05	0.871826D-05	0.500368D-05
50	-0.152138D-04	0.365290D-05	-0.251765D-04	-0.203027D-04	-0.493487D-04



51	-0.325968D-05	-0.822886D-04	0.818826D-04	0.420106D-04	0.200522D-04
52	-0.188516D-04	0.471304D-04	0.326123D-04	0.531094D-05	0.348756D-04
53	0.330282D-05	-0.209605D-04	0.652068D-05	0.285589D-04	-0.555597D-04
54	-0.753831D-05	0.166051D-04	-0.158546D-04	0.578355D-05	0.205680D-04
55	-0.191825D-06	-0.278644D-04	-0.135103D-04	0.661493D-05	-0.361873D-04
56	-0.299787D-05	0.322347D-04	0.199473D-04	-0.638593D-05	0.253706D-04
57	0.128333D-05	-0.189545D-04	-0.571736D-05	-0.964421D-05	-0.327220D-04
58	-0.958740D-05	0.318483D-04	-0.231935D-04	-0.361677D-04	0.308707D-04
59	-0.210760D-05	-0.378352D-04	0.144584D-05	-0.223851D-04	0.112849D-04
60	-0.388278D-05	0.586816D-05	-0.720953D-05	-0.191723D-05	0.186227D-04
61	-0.194535D-05	0.131664D-04	-0.607753D-05	0.684954D-05	0.136603D-04
62	-0.108889D-04	-0.235198D-04	-0.448009D-05	-0.587552D-05	0.652864D-05
63	0.206645D-04	0.196863D-03	0.370083D-04	0.194731D-03	-0.288633D-03
64	-0.266558D-04	-0.665303D-04	0.537114D-04	-0.212602D-04	0.130685D-03
65	0.516662D-04	0.662720D-04	-0.327101D-04	-0.107155D-04	-0.450249D-04
66	0.987161D-05	-0.121013D-03	0.855012D-04	0.654678D-04	0.118419D-03
67	0.618439D-05	-0.167136D-04	0.125440D-04	0.577227D-05	0.167525D-04
68	0.743876D-04	0.135039D-02	0.509103D-03	0.135501D-03	-0.379737D-03
69	-0.286255D-04	-0.138016D-03	-0.161983D-04	0.899978D-05	-0.148898D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.195650D-03				
32	0.139987D-03	0.119964D-02			
33	-0.161974D-03	-0.539664D-03	0.199161D-02		
34	-0.653113D-09	0.781042D-08	0.151121D-07	0.100330D-09	
35	0.266887D-04	0.187327D-05	0.282710D-04	0.162127D-07	0.227298D-01
36	0.183987D-04	0.338470D-04	0.492503D-04	0.225450D-07	0.229671D-02
37	-0.415862D-04	-0.254994D-05	-0.482582D-05	0.273046D-07	0.120177D-02
38	-0.147477D-04	-0.504764D-04	0.722772D-04	-0.552662D-08	0.120095D-02
39	0.563762D-05	0.290174D-04	-0.417518D-04	0.239388D-08	0.348373D-03
40	0.609581D-04	0.110328D-03	0.582026D-04	0.390654D-07	-0.326287D-04
41	0.126126D-04	0.302178D-04	-0.126314D-03	0.109885D-07	-0.175867D-03
42	-0.851383D-05	0.271522D-04	0.114337D-03	-0.154312D-08	0.404450D-03
43	0.443917D-04	0.699783D-04	-0.896423D-04	-0.458350D-08	-0.983477D-03
44	0.143087D-04	-0.228431D-04	0.712832D-04	-0.189993D-07	-0.942615D-04
45	0.683947D-04	0.884153D-05	0.545854D-04	-0.355809D-07	-0.532185D-03
46	-0.393465D-05	0.283429D-04	0.765823D-04	-0.155119D-08	-0.530217D-04
47	0.125084D-04	-0.290834D-05	-0.405431D-04	0.343813D-08	0.632829D-04
48	-0.481896D-04	0.306973D-03	0.353005D-03	0.261666D-08	-0.171604D-02
49	0.555724D-05	0.730259D-04	0.148051D-04	0.397557D-08	-0.580741D-03
50	0.194739D-04	-0.283717D-05	-0.709429D-04	-0.917224D-08	-0.520228D-04

51	0.487092D-04	0.714131D-04	-0.843960D-04	-0.173385D-07	0.571452D-04
52	0.873642D-05	0.329979D-05	0.116329D-04	-0.184820D-07	-0.623884D-04
53	0.160860D-04	0.403672D-04	-0.130430D-04	-0.135769D-07	0.171043D-03
54	-0.225416D-04	-0.103303D-03	0.145483D-03	0.421932D-08	-0.228120D-04
55	-0.892112D-05	-0.632315D-05	-0.156149D-04	0.195122D-07	0.818909D-05
56	-0.184373D-05	-0.378026D-04	0.344358D-04	0.907735D-08	-0.116634D-03
57	-0.153622D-04	-0.600234D-04	0.147262D-04	-0.612891D-08	0.210419D-05
58	0.339944D-05	-0.424021D-04	0.624404D-04	0.158569D-07	-0.149573D-03
59	0.984288D-05	-0.157517D-05	0.523464D-05	-0.163996D-08	-0.779430D-04
60	-0.643638D-05	0.258844D-05	0.197160D-04	0.484191D-08	-0.154814D-03
61	0.168676D-04	-0.219844D-06	-0.179492D-04	0.106239D-08	0.732479D-04
62	0.559949D-05	0.299072D-06	0.154642D-05	-0.351290D-08	0.169213D-04
63	0.266404D-05	0.430763D-04	-0.189328D-03	0.320021D-07	-0.289945D-03
64	0.112606D-04	0.257382D-05	-0.432025D-04	-0.117122D-08	-0.362561D-03
65	-0.448021D-04	0.437756D-04	0.896004D-04	0.102482D-07	-0.128340D-03
66	0.384273D-04	0.207809D-03	-0.146077D-03	-0.508319D-08	-0.558894D-04
67	-0.328452D-04	0.296967D-05	-0.648635D-06	-0.108421D-07	0.170031D-03
68	0.226735D-05	-0.153645D-03	0.463416D-03	0.753725D-07	0.170780D-02
69	0.404454D-04	0.157307D-03	0.138954D-03	-0.454718D-08	-0.461998D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.491441D-02				
37	0.808890D-04	0.421706D-02			
38	-0.345819D-04	-0.122227D-02	0.297141D-02		
39	0.421498D-03	-0.459616D-03	-0.181178D-03	0.135549D-02	
40	-0.207252D-02	0.429763D-03	-0.646012D-03	-0.839414D-03	0.400599D-01
41	-0.699211D-04	-0.296836D-04	0.224844D-04	-0.717042D-04	0.237396D-03
42	0.258847D-03	0.237736D-03	-0.151623D-03	0.100367D-03	-0.109364D-02
43	-0.141955D-03	0.113544D-04	0.303288D-04	-0.628784D-04	-0.242708D-03
44	0.645752D-04	0.493006D-03	-0.417228D-03	0.364234D-03	-0.285931D-02
45	-0.352569D-03	-0.152029D-04	0.152604D-03	0.428247D-04	-0.516543D-04
46	0.153971D-03	0.984457D-04	-0.791474D-04	-0.275151D-04	-0.333743D-03
47	0.877590D-04	0.526591D-04	-0.986452D-04	-0.123620D-04	-0.437947D-04
48	-0.639900D-03	-0.248494D-03	-0.702723D-03	0.519074D-03	0.534154D-03
49	-0.152569D-03	-0.219703D-05	-0.233896D-03	0.675875D-04	0.598191D-03
50	-0.187153D-03	0.127255D-03	-0.824000D-04	0.686723D-05	0.118464D-03
51	-0.224729D-03	-0.438675D-04	-0.885378D-05	0.490859D-04	0.526114D-03
52	0.346344D-04	0.698644D-04	-0.709244D-04	0.133376D-04	0.296069D-03
53	0.521428D-04	0.108890D-04	0.365786D-04	-0.281217D-04	0.102624D-03
54	0.149615D-04	-0.588300D-05	-0.168655D-03	0.662990D-04	0.183068D-03
55	0.212830D-04	-0.728780D-04	0.361776D-04	0.163267D-04	-0.913896D-04

56	-0.493007D-04	-0.468092D-05	-0.115682D-04	0.188300D-04	-0.113961D-03
57	-0.143600D-04	-0.323531D-04	0.393328D-04	0.224522D-04	-0.107079D-03
58	0.147075D-04	-0.510429D-04	0.334979D-04	-0.973421D-05	0.961610D-04
59	-0.405473D-05	-0.113052D-04	0.308307D-04	-0.202518D-04	0.350501D-04
60	-0.145262D-04	0.612229D-05	-0.224467D-04	0.547484D-05	0.466596D-04
61	-0.147770D-04	0.910511D-05	0.160925D-04	0.120168D-04	-0.153077D-04
62	0.949180D-05	-0.959990D-05	-0.436897D-05	-0.183783D-05	0.165743D-04
63	-0.381775D-03	0.863081D-03	-0.104697D-03	-0.189843D-03	0.145395D-02
64	-0.325639D-03	-0.173315D-03	0.124020D-04	0.202461D-04	0.496981D-03
65	0.109965D-03	0.170668D-04	0.103041D-03	-0.343941D-04	-0.722259D-04
66	-0.234340D-04	0.314329D-03	-0.233647D-03	-0.102314D-03	0.694077D-03
67	-0.197805D-04	-0.494762D-04	0.114151D-03	-0.113346D-04	-0.422980D-04
68	0.110051D-03	0.294883D-02	-0.584103D-03	-0.300143D-03	-0.339940D-02
69	0.159910D-03	0.226833D-03	-0.255663D-03	0.143079D-04	-0.158060D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.338815D-02				
42	-0.206091D-02	0.175303D-01			
43	-0.159608D-02	-0.159039D-02	0.181903D-01		
44	-0.274408D-02	0.224446D-02	0.976788D-02	0.344044D-01	
45	-0.202531D-02	-0.297821D-02	0.114783D-01	0.113634D-01	0.380319D-01
46	0.103590D-03	0.148607D-02	0.410768D-04	0.122149D-02	0.140472D-02
47	-0.231242D-03	0.435242D-03	0.112219D-04	-0.721354D-04	-0.162438D-02
48	0.467999D-03	0.497531D-03	-0.675646D-03	-0.115043D-02	-0.167290D-02
49	0.127881D-04	0.706545D-03	0.116134D-03	-0.153676D-03	-0.268168D-03
50	0.459720D-04	0.468817D-03	0.126496D-03	-0.938600D-04	-0.308200D-03
51	-0.475302D-04	-0.185385D-03	0.442755D-03	0.235878D-03	0.613363D-03
52	-0.653003D-04	0.606023D-04	0.618000D-04	0.126220D-03	-0.286415D-04
53	0.768603D-04	-0.396810D-03	0.156874D-03	-0.966871D-04	0.315167D-03
54	0.124942D-04	-0.683152D-04	-0.802381D-04	-0.289476D-03	-0.186452D-03
55	0.103143D-04	0.602844D-04	0.459655D-04	-0.919017D-04	-0.509001D-04
56	0.255473D-04	0.975469D-04	-0.457018D-04	-0.890523D-04	-0.636789D-04
57	-0.900923D-04	-0.588183D-04	-0.219797D-03	-0.426357D-04	-0.235236D-03
58	0.732413D-04	0.157004D-03	-0.289976D-03	-0.902941D-04	-0.293027D-03
59	-0.291793D-04	0.913624D-05	-0.315792D-05	-0.468000D-04	0.160126D-03
60	-0.119715D-04	0.180251D-03	0.137320D-03	0.174527D-03	0.154068D-03
61	0.617001D-05	-0.776617D-05	-0.633150D-04	-0.143525D-04	-0.455824D-04
62	-0.191363D-04	-0.534620D-05	-0.364176D-04	-0.135871D-04	0.628162D-04
63	-0.358737D-03	-0.158029D-02	-0.244582D-03	-0.593270D-03	-0.451970D-03
64	-0.600484D-04	-0.826209D-03	0.394726D-03	0.779031D-03	0.575350D-04
65	-0.100010D-03	-0.647736D-03	0.538721D-03	0.358722D-04	0.647857D-03

66	0.117564D-03	-0.433916D-03	0.326398D-03	-0.197901D-03	-0.109658D-03
67	-0.106849D-03	0.796236D-04	0.999831D-04	0.336941D-03	0.290918D-03
68	0.429356D-03	0.211368D-02	0.168982D-02	0.148582D-03	-0.165235D-02
69	-0.279996D-02	0.122670D-01	0.897516D-02	0.132179D-01	0.112458D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.199196D-02				
47	-0.315517D-03	0.139187D-02			
48	0.240857D-03	-0.721306D-03	0.744490D-01		
49	0.710693D-04	-0.125007D-04	0.924441D-02	0.705363D-02	
50	0.601137D-04	0.786311D-04	0.130047D-02	0.159970D-02	0.255226D-02
51	-0.349195D-04	-0.514042D-05	0.524482D-02	0.790083D-03	0.155162D-04
52	-0.460616D-05	-0.566748D-05	0.808572D-03	0.477199D-03	0.116579D-03
53	0.427118D-04	-0.871295D-04	0.351892D-03	-0.414788D-04	0.429126D-04
54	-0.569818D-04	-0.990393D-04	0.364238D-02	0.129787D-04	0.368205D-04
55	0.221834D-04	-0.383363D-04	0.486903D-03	0.190486D-03	-0.297827D-04
56	-0.327335D-04	0.195675D-04	0.125331D-03	-0.811395D-04	-0.393963D-04
57	-0.237588D-04	-0.811903D-05	0.158265D-03	-0.357441D-04	-0.265710D-04
58	0.259715D-04	-0.112910D-04	0.915453D-03	0.641229D-03	0.204928D-03
59	-0.179521D-06	-0.441476D-05	0.248813D-03	0.207896D-03	0.180326D-03
60	0.229609D-04	-0.317724D-05	0.281044D-03	0.683873D-04	0.414250D-05
61	-0.576615D-05	-0.192215D-04	-0.401360D-04	0.165643D-04	-0.267006D-05
62	-0.197037D-04	-0.973604D-05	0.800771D-04	0.316480D-04	0.319242D-04
63	-0.362732D-03	0.691862D-03	-0.542607D-02	-0.406482D-02	-0.115443D-02
64	-0.159317D-03	-0.164166D-03	0.114223D-04	-0.716031D-03	-0.102707D-02
65	-0.181458D-03	0.334667D-04	-0.108981D-04	-0.671777D-04	-0.171620D-03
66	-0.822375D-04	-0.985375D-05	-0.328242D-03	-0.774693D-04	0.761485D-04
67	0.352230D-05	-0.306283D-04	-0.539029D-03	-0.145981D-03	-0.648865D-04
68	-0.314220D-03	0.145714D-03	-0.157625D-02	-0.537022D-03	0.130676D-02
69	0.362476D-02	-0.657542D-03	-0.143064D-03	0.384341D-03	0.274178D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.633441D-02				
52	0.793946D-03	0.122099D-02			
53	0.812836D-03	0.140511D-03	0.232736D-02		
54	-0.178910D-02	-0.189274D-03	-0.136923D-03	0.445994D-02	
55	-0.242779D-03	-0.350810D-03	-0.491493D-04	0.486131D-03	0.782489D-03
56	0.841071D-04	-0.488853D-04	-0.618012D-03	0.183254D-03	0.360195D-04

57	-0.189093D-03	0.303736D-04	0.175664D-03	0.438857D-03	-0.442623D-04
58	-0.477694D-03	-0.264691D-04	-0.151368D-03	-0.438641D-03	-0.226824D-05
59	-0.147606D-04	-0.122806D-03	0.109919D-04	-0.499089D-04	-0.463984D-04
60	0.327714D-04	0.812793D-04	-0.249443D-03	0.130665D-04	-0.113097D-04
61	-0.204015D-04	-0.234219D-04	0.434915D-04	0.806158D-05	0.661917D-04
62	0.548400D-05	-0.397153D-04	0.183207D-04	-0.207016D-04	0.866907D-05
63	0.160456D-03	-0.424437D-03	-0.257436D-03	-0.603594D-03	-0.180892D-03
64	0.268712D-03	-0.282551D-05	0.213702D-03	0.153330D-03	-0.182205D-03
65	-0.133529D-03	-0.663310D-03	0.374213D-03	-0.108208D-03	0.169200D-03
66	0.420266D-04	0.133894D-03	-0.205582D-04	-0.429683D-03	-0.406342D-03
67	0.106236D-03	0.130808D-03	-0.248682D-05	-0.397248D-05	-0.185790D-05
68	0.102759D-02	0.108284D-02	-0.428808D-03	-0.103962D-02	-0.409437D-05
69	0.330828D-04	-0.615107D-04	-0.143073D-03	-0.118157D-03	0.143841D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.845629D-03				
57	-0.464633D-03	0.114620D-02			
58	-0.633217D-04	-0.203548D-04	0.207733D-02		
59	0.688784D-05	0.825696D-06	0.269076D-03	0.402348D-03	
60	-0.192179D-04	0.543341D-04	0.168169D-03	0.118642D-04	0.382855D-03
61	-0.398830D-04	-0.931893D-04	0.597191D-04	-0.174219D-04	-0.971289D-04
62	-0.508181D-05	-0.642763D-05	0.654122D-04	0.629210D-04	-0.763044D-04
63	0.687850D-04	-0.267344D-03	-0.195910D-02	-0.450340D-03	-0.176498D-03
64	-0.723370D-04	0.206936D-03	-0.424160D-03	-0.433888D-03	-0.509954D-04
65	-0.265143D-03	0.189602D-03	-0.147964D-03	0.309124D-04	-0.428576D-03
66	0.920952D-04	-0.406505D-03	0.320242D-04	0.111228D-03	0.139001D-03
67	-0.319476D-04	0.104161D-03	-0.155537D-03	-0.260252D-03	0.499738D-04
68	0.315169D-03	-0.313015D-03	0.476093D-03	-0.189090D-03	-0.162393D-04
69	0.167253D-04	-0.198849D-03	-0.613699D-04	0.473757D-04	0.261374D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	0.246513D-03				
62	-0.231043D-04	0.242411D-03			
63	0.296080D-04	0.602398D-05	0.576120D-01		
64	0.225866D-04	-0.104750D-03	0.725955D-02	0.126461D-01	
65	0.137784D-03	0.132471D-03	0.290864D-02	-0.256113D-04	0.114684D-01
66	-0.218952D-03	0.197875D-04	0.196507D-02	-0.207997D-03	-0.344774D-02
67	-0.708042D-04	-0.219840D-03	0.136135D-02	0.103476D-02	-0.140312D-02

68	0.298334D-03	0.281150D-03	-0.565435D-02	-0.100741D-01	0.147652D-02
69	-0.462891D-04	0.952310D-05	-0.138193D-02	-0.213345D-03	-0.455252D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69
66	0.762598D-02			
67	-0.576079D-03	0.372285D-02		
68	-0.237581D-02	-0.608918D-02	0.217556D+00	
69	-0.136600D-03	0.224515D-03	-0.570674D-03	0.230665D-01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.231	1.000			
3	-0.095	-0.178	1.000		
4	0.062	0.092	-0.099	1.000	
5	0.129	0.080	-0.153	0.238	1.000
6	-0.067	-0.119	0.129	-0.211	-0.242
7	-0.001	0.032	-0.017	0.012	0.039
8	-0.031	-0.026	-0.029	-0.001	-0.008
9	-0.007	-0.003	-0.047	-0.037	-0.041
10	0.002	-0.006	0.049	-0.016	-0.036
11	-0.007	-0.024	0.063	-0.052	-0.041
12	0.003	-0.012	0.054	-0.033	0.000
13	0.007	0.040	-0.012	0.007	-0.026
14	0.051	0.002	0.007	0.017	0.001
15	0.022	0.022	0.012	0.058	-0.026
16	-0.013	-0.016	0.020	0.023	0.006
17	0.031	-0.009	0.054	-0.006	-0.004
18	-0.014	0.008	-0.001	0.019	0.021
19	0.031	-0.021	0.050	0.039	-0.011
20	0.000	0.020	-0.043	0.038	-0.024
21	-0.002	0.015	-0.017	0.009	0.056
22	0.017	0.006	0.002	0.008	-0.018
23	0.001	-0.057	-0.022	-0.042	-0.022
24	-0.032	0.005	-0.033	0.010	-0.008
25	0.024	0.032	-0.060	0.038	0.032
26	0.012	0.010	0.010	0.023	0.006
27	-0.002	-0.035	-0.002	-0.048	-0.023
28	-0.008	0.010	0.005	0.059	0.024

29	0.025	0.005	0.015	0.016	0.003
30	-0.040	0.014	0.062	-0.002	-0.025
31	0.002	0.003	0.021	0.049	0.039
32	0.012	-0.021	0.012	0.018	0.007
33	-0.026	-0.013	-0.009	-0.072	-0.052
34	0.005	0.012	-0.028	0.002	0.007
35	0.024	-0.024	-0.002	-0.022	0.008
36	-0.021	-0.056	0.029	-0.026	-0.030
37	0.005	-0.051	0.040	0.020	-0.007
38	0.007	0.027	-0.009	0.007	-0.002
39	-0.003	-0.042	0.009	-0.033	0.029
40	-0.046	0.014	0.027	-0.029	-0.022
41	0.004	0.025	0.025	-0.017	-0.025
42	-0.032	-0.005	0.000	0.018	0.005
43	0.010	0.026	-0.025	0.042	-0.005
44	0.015	0.034	0.003	0.048	0.045
45	-0.002	0.030	-0.022	0.015	0.016
46	-0.038	-0.010	-0.026	0.004	0.020
47	-0.005	0.005	0.032	-0.047	-0.026
48	0.006	0.019	0.027	-0.010	0.003
49	-0.024	-0.031	-0.026	-0.006	0.004
50	0.016	-0.016	0.022	-0.005	0.015
51	-0.019	0.011	-0.001	-0.035	-0.029
52	-0.081	-0.052	0.008	0.002	-0.029
53	-0.009	-0.001	0.028	-0.011	-0.024
54	0.010	-0.002	-0.028	0.007	0.004
55	0.062	-0.009	-0.024	0.024	0.031
56	0.065	-0.011	-0.002	0.026	0.003
57	-0.042	0.013	-0.009	-0.022	0.009
58	0.000	-0.080	0.030	0.021	0.042
59	0.025	-0.032	0.017	0.009	0.011
60	-0.043	-0.038	-0.012	0.012	0.027
61	0.014	-0.037	0.005	-0.011	0.017
62	-0.023	-0.026	0.030	-0.007	-0.028
63	0.043	0.039	-0.011	0.000	-0.001
64	0.001	0.000	-0.014	0.046	0.000
65	0.040	0.015	-0.011	0.002	0.005
66	0.009	0.002	0.046	0.015	-0.014
67	-0.028	0.036	-0.040	0.006	0.022
68	-0.008	-0.063	0.040	-0.049	-0.058
69	-0.004	0.010	-0.020	0.038	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.006	1.000			
8	0.024	-0.066	1.000		
9	0.038	0.058	0.109	1.000	
10	0.018	-0.023	-0.023	0.066	1.000
11	0.026	-0.122	-0.017	0.100	-0.165
12	-0.006	-0.020	0.079	-0.077	0.149
13	0.011	-0.012	-0.011	-0.009	-0.013
14	-0.023	-0.001	-0.009	0.044	0.023
15	0.008	0.008	-0.011	0.027	0.032
16	0.003	0.015	0.012	0.006	0.010
17	-0.044	0.014	0.005	-0.020	-0.011
18	0.010	-0.013	0.007	0.022	-0.011
19	0.025	0.038	-0.010	0.039	0.016
20	0.010	0.008	0.015	0.037	-0.036
21	-0.037	-0.040	0.012	-0.025	-0.036
22	-0.043	-0.026	0.037	0.005	-0.021
23	0.023	0.008	0.027	0.018	-0.005
24	0.009	0.005	-0.009	0.003	-0.003
25	-0.031	-0.039	-0.009	0.011	0.004
26	-0.022	0.004	0.034	0.038	-0.010
27	0.065	0.008	0.049	-0.025	0.014
28	-0.043	-0.056	-0.017	-0.071	-0.053
29	0.000	-0.008	0.016	-0.033	-0.054
30	0.037	0.033	-0.015	0.030	-0.021
31	0.006	-0.001	0.019	-0.003	-0.005
32	-0.030	-0.062	0.040	-0.037	0.015
33	0.011	0.008	-0.032	0.009	-0.005
34	-0.033	-0.022	-0.018	-0.005	0.002
35	0.022	0.025	0.017	-0.033	-0.010
36	0.035	-0.026	0.017	0.018	-0.007
37	0.011	0.010	0.014	-0.014	0.004
38	-0.014	0.056	-0.029	0.009	-0.061
39	-0.006	-0.015	-0.009	-0.031	-0.037
40	0.011	-0.010	0.019	-0.022	0.027
41	0.030	0.004	0.022	-0.073	0.010
42	-0.036	0.016	0.004	0.042	0.026
43	-0.013	0.035	0.022	0.064	-0.053
44	0.010	-0.007	-0.015	-0.040	0.034
45	0.005	-0.024	-0.040	0.010	-0.129
46	-0.042	-0.046	-0.063	-0.011	-0.007
47	0.039	0.014	0.127	0.031	0.028



48	-0.013	0.006	-0.046	0.002	-0.004
49	-0.004	-0.007	0.011	0.029	0.003
50	-0.017	-0.006	0.006	-0.015	0.030
51	-0.003	0.057	0.005	-0.036	0.000
52	0.037	0.032	0.015	-0.065	-0.028
53	0.004	0.038	0.012	-0.053	-0.052
54	-0.022	0.007	-0.016	-0.004	0.002
55	-0.007	-0.009	0.007	0.024	0.009
56	0.016	-0.002	0.034	0.031	-0.001
57	-0.052	0.015	-0.012	-0.017	0.038
58	-0.007	-0.034	-0.035	-0.014	0.004
59	-0.038	-0.012	0.003	0.036	0.038
60	-0.021	0.034	-0.020	0.023	0.040
61	0.026	0.008	-0.015	0.028	-0.029
62	-0.011	-0.050	-0.027	-0.059	-0.020
63	0.037	-0.027	-0.026	0.015	-0.015
64	0.011	0.022	-0.043	0.024	-0.020
65	0.006	-0.031	0.052	-0.003	0.001
66	0.013	-0.051	-0.047	0.001	-0.009
67	0.028	0.003	0.033	-0.015	-0.024
68	0.016	0.000	0.010	0.002	-0.020
69	-0.026	-0.018	-0.110	0.040	0.128

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.174	1.000			
13	0.022	0.004	1.000		
14	0.038	-0.003	0.299	1.000	
15	0.050	-0.020	0.086	0.337	1.000
16	-0.051	-0.033	-0.159	-0.191	-0.085
17	-0.027	-0.018	-0.006	-0.097	-0.192
18	0.009	-0.052	0.016	0.003	0.006
19	-0.014	-0.001	0.093	0.141	0.025
20	0.053	-0.021	0.005	0.085	0.152
21	0.040	0.002	-0.046	-0.055	-0.029
22	0.022	0.041	0.007	0.017	0.013
23	0.021	0.015	0.279	0.178	0.070
24	-0.020	-0.012	0.024	0.144	0.148
25	-0.005	0.011	-0.042	-0.074	-0.043
26	0.029	0.014	0.002	0.022	0.001
27	-0.008	0.016	0.017	0.012	0.007

28	0.024	0.010	-0.137	-0.137	-0.047
29	0.005	0.048	-0.022	-0.125	-0.206
30	0.020	-0.054	0.037	0.041	0.024
31	-0.029	-0.034	-0.005	0.000	0.036
32	-0.046	0.003	0.013	-0.013	-0.037
33	0.011	0.013	0.008	0.018	0.019
34	0.023	0.013	0.000	-0.005	-0.051
35	-0.031	0.010	-0.028	-0.037	-0.028
36	-0.015	-0.013	-0.023	0.015	0.021
37	-0.029	0.000	-0.023	-0.039	-0.004
38	0.046	0.030	0.055	0.050	-0.016
39	-0.007	-0.034	0.014	0.000	-0.018
40	0.021	-0.014	-0.004	-0.046	-0.021
41	0.012	0.007	0.039	0.013	-0.017
42	-0.088	0.039	-0.023	0.004	0.016
43	-0.043	-0.008	-0.007	-0.003	-0.025
44	-0.039	-0.027	-0.026	-0.046	-0.005
45	0.002	-0.045	-0.008	-0.039	-0.018
46	0.006	-0.016	0.011	-0.007	-0.028
47	-0.004	0.026	-0.023	-0.009	0.013
48	0.021	0.038	0.002	-0.014	0.010
49	0.001	0.008	0.004	0.016	0.038
50	-0.023	-0.008	0.016	0.010	0.000
51	-0.047	0.065	-0.003	0.029	-0.006
52	-0.012	-0.008	0.003	0.024	0.017
53	-0.014	0.024	0.005	0.004	-0.027
54	0.028	-0.016	-0.009	-0.049	-0.037
55	-0.012	-0.011	-0.045	-0.031	-0.025
56	0.018	-0.013	-0.016	-0.039	-0.010
57	0.004	0.028	-0.006	-0.006	-0.020
58	-0.010	-0.030	-0.007	0.050	0.034
59	-0.009	0.005	0.024	0.019	0.011
60	-0.031	-0.051	0.043	0.018	0.002
61	-0.025	0.008	-0.014	0.018	-0.024
62	0.021	0.012	-0.019	0.015	0.026
63	0.046	0.027	-0.025	-0.005	-0.001
64	0.067	-0.014	-0.014	0.016	-0.024
65	0.021	0.026	0.047	0.020	-0.011
66	-0.007	-0.019	-0.043	-0.051	-0.015
67	0.028	-0.014	-0.056	-0.007	-0.001
68	-0.004	0.002	0.012	-0.008	-0.012
69	-0.091	0.044	-0.025	-0.020	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	1.000				
17	0.255	1.000			
18	-0.157	-0.211	1.000		
19	-0.179	-0.040	0.027	1.000	
20	-0.039	-0.148	0.058	0.266	1.000
21	0.105	0.128	-0.191	-0.098	-0.154
22	-0.028	-0.011	0.079	0.102	0.154
23	-0.208	-0.058	0.044	0.247	0.041
24	-0.046	-0.158	0.046	0.049	0.216
25	0.138	0.138	-0.239	-0.036	-0.038
26	0.037	-0.013	0.059	0.129	0.156
27	-0.024	-0.030	0.007	0.047	0.046
28	0.113	-0.008	0.001	-0.162	-0.010
29	0.044	0.171	-0.006	-0.016	-0.190
30	-0.107	-0.141	0.219	0.037	0.017
31	0.026	0.031	-0.037	-0.107	-0.151
32	0.050	0.062	-0.022	-0.028	-0.064
33	-0.029	-0.031	0.008	-0.018	0.048
34	0.007	0.014	0.039	0.008	-0.027
35	-0.027	0.049	-0.016	0.015	0.022
36	0.024	0.050	-0.007	0.010	0.003
37	0.001	0.022	-0.046	0.027	-0.027
38	-0.041	0.015	0.014	0.017	-0.001
39	-0.021	-0.013	0.048	0.010	0.001
40	0.019	0.025	0.024	-0.017	-0.010
41	0.004	0.009	-0.031	-0.010	-0.036
42	-0.027	0.019	-0.028	0.013	-0.001
43	0.007	0.006	0.012	0.051	0.030
44	0.000	0.001	-0.028	-0.032	0.039
45	0.001	0.012	0.054	-0.013	0.039
46	-0.030	0.024	0.006	0.003	0.035
47	0.033	-0.022	-0.009	-0.027	-0.047
48	0.031	0.006	0.017	0.012	0.026
49	-0.005	0.011	0.035	-0.010	-0.019
50	0.004	0.009	0.020	-0.009	-0.016
51	0.009	-0.004	-0.040	-0.020	-0.011
52	0.012	0.012	-0.006	-0.035	-0.049
53	0.015	-0.013	-0.001	-0.002	0.041
54	0.031	-0.015	-0.009	0.004	0.045
55	-0.010	0.052	0.024	0.037	0.022
56	0.018	0.008	-0.021	-0.027	0.007

57	-0.005	0.011	-0.009	-0.023	-0.004
58	-0.024	0.008	0.008	0.035	0.010
59	-0.052	-0.036	0.012	0.001	0.014
60	-0.010	0.060	-0.008	0.015	0.010
61	0.001	0.026	0.009	0.009	-0.018
62	0.001	-0.033	0.009	-0.028	-0.046
63	0.019	0.029	0.008	-0.015	0.014
64	-0.008	-0.020	-0.006	0.000	0.061
65	0.019	0.007	-0.010	0.011	0.003
66	0.030	0.035	0.007	-0.018	-0.010
67	-0.002	0.014	0.000	-0.021	0.012
68	-0.017	-0.001	0.017	0.038	-0.036
69	-0.004	0.021	-0.008	0.017	0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.171	1.000			
23	-0.053	0.027	1.000		
24	-0.032	0.042	0.200	1.000	
25	0.254	-0.054	-0.160	-0.194	1.000
26	-0.204	0.343	0.097	0.131	-0.162
27	-0.039	0.042	0.239	0.136	-0.213
28	0.001	-0.033	-0.297	-0.099	0.064
29	0.055	-0.007	-0.049	-0.296	0.109
30	-0.229	-0.009	0.068	0.041	-0.287
31	0.182	-0.298	-0.007	-0.045	0.073
32	0.054	-0.067	-0.102	-0.138	0.206
33	-0.060	0.044	0.009	0.066	-0.108
34	-0.019	-0.044	0.018	-0.015	-0.028
35	0.004	-0.010	-0.029	-0.014	0.028
36	-0.012	-0.011	-0.006	0.005	-0.041
37	0.002	0.019	0.038	0.004	-0.004
38	-0.041	-0.004	0.006	-0.019	0.016
39	0.016	-0.028	-0.012	0.000	-0.029
40	0.037	-0.038	-0.026	-0.051	0.034
41	0.057	-0.021	0.022	-0.011	-0.002
42	-0.004	0.018	0.008	0.011	-0.004
43	0.011	-0.007	-0.036	-0.033	0.010
44	-0.015	0.003	-0.021	0.023	-0.007
45	-0.022	0.004	-0.034	0.018	-0.025
46	-0.017	0.017	0.003	-0.007	-0.001

47	0.042	-0.032	0.000	-0.036	0.016
48	-0.017	-0.019	-0.038	0.028	0.004
49	-0.005	-0.034	-0.052	0.009	-0.001
50	0.016	0.013	-0.023	-0.023	0.016
51	-0.031	-0.075	-0.010	-0.012	0.003
52	0.014	-0.092	-0.038	-0.013	0.010
53	-0.004	-0.007	0.003	-0.013	0.015
54	0.013	0.054	0.036	0.016	-0.004
55	-0.011	0.021	0.032	-0.003	0.010
56	0.019	0.005	0.017	0.010	0.009
57	0.029	0.027	0.017	-0.004	-0.025
58	-0.029	-0.052	-0.027	0.021	-0.045
59	-0.022	0.018	-0.001	0.040	-0.032
60	-0.037	-0.030	-0.011	-0.012	-0.026
61	-0.016	-0.053	0.033	-0.007	-0.004
62	0.019	-0.030	0.031	0.050	-0.053
63	0.019	0.002	0.003	0.025	0.040
64	0.014	-0.019	-0.023	-0.011	0.048
65	-0.010	0.021	0.006	-0.009	0.003
66	-0.040	-0.008	-0.021	0.037	-0.026
67	-0.011	-0.016	-0.035	-0.036	0.039
68	0.051	-0.048	0.007	0.010	-0.008
69	-0.021	0.020	-0.014	0.007	-0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.354	1.000			
28	-0.042	-0.073	1.000		
29	-0.028	-0.053	0.229	1.000	
30	0.037	0.051	-0.074	-0.159	1.000
31	-0.333	-0.086	0.068	0.100	-0.151
32	-0.227	-0.375	0.179	0.163	-0.230
33	0.103	0.082	-0.082	-0.182	0.219
34	-0.023	-0.018	0.022	0.018	0.037
35	0.020	0.000	0.003	0.042	-0.013
36	0.006	0.003	-0.053	-0.008	0.015
37	0.046	0.033	0.007	0.001	-0.006
38	-0.007	-0.015	-0.007	0.025	0.012
39	-0.027	-0.023	-0.016	-0.004	-0.008
40	-0.002	0.009	0.001	0.068	-0.007
41	-0.011	0.043	0.038	0.015	0.008

42	0.031	-0.011	0.000	-0.011	-0.014
43	-0.004	-0.013	-0.018	-0.001	-0.008
44	0.000	0.044	0.031	-0.013	-0.003
45	-0.021	-0.023	0.031	0.023	-0.032
46	0.010	-0.005	-0.003	0.018	-0.006
47	0.015	0.012	-0.026	0.008	0.024
48	0.000	-0.069	0.016	0.005	0.009
49	0.003	-0.059	-0.002	0.006	0.002
50	-0.020	0.001	-0.019	-0.023	-0.028
51	-0.003	-0.020	0.040	0.030	0.007
52	-0.036	0.027	0.036	0.009	0.029
53	0.005	-0.009	0.005	0.034	-0.033
54	-0.008	0.005	-0.009	0.005	0.009
55	0.000	-0.020	-0.019	0.014	-0.038
56	-0.007	0.022	0.027	-0.013	0.025
57	0.003	-0.011	-0.007	-0.016	-0.028
58	-0.014	0.014	-0.020	-0.045	0.020
59	-0.007	-0.037	0.003	-0.064	0.016
60	-0.013	0.006	-0.014	-0.006	0.028
61	-0.008	0.017	-0.015	0.025	0.025
62	-0.047	-0.030	-0.011	-0.022	0.012
63	0.006	0.016	0.006	0.046	-0.035
64	-0.016	-0.012	0.019	-0.011	0.034
65	0.033	0.012	-0.012	-0.006	-0.012
66	0.008	-0.027	0.038	0.043	0.039
67	0.007	-0.005	0.008	0.005	0.008
68	0.011	0.057	0.042	0.017	-0.024
69	-0.013	-0.018	-0.004	0.003	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.289	1.000			
33	-0.259	-0.349	1.000		
34	-0.005	0.023	0.034	1.000	
35	0.013	0.000	0.004	0.011	1.000
36	0.019	0.014	0.016	0.032	0.217
37	-0.046	-0.001	-0.002	0.042	0.123
38	-0.019	-0.027	0.030	-0.010	0.146
39	0.011	0.023	-0.025	0.006	0.063
40	0.022	0.016	0.007	0.019	-0.001
41	0.015	0.015	-0.049	0.019	-0.020

42	-0.005	0.006	0.019	-0.001	0.020
43	0.024	0.015	-0.015	-0.003	-0.048
44	0.006	-0.004	0.009	-0.010	-0.003
45	0.025	0.001	0.006	-0.018	-0.018
46	-0.006	0.018	0.038	-0.003	-0.008
47	0.024	-0.002	-0.024	0.009	0.011
48	-0.013	0.032	0.029	0.001	-0.042
49	0.005	0.025	0.004	0.005	-0.046
50	0.028	-0.002	-0.031	-0.018	-0.007
51	0.044	0.026	-0.024	-0.022	0.005
52	0.018	0.003	0.007	-0.053	-0.012
53	0.024	0.024	-0.006	-0.028	0.024
54	-0.024	-0.045	0.049	0.006	-0.002
55	-0.023	-0.007	-0.013	0.070	0.002
56	-0.005	-0.038	0.027	0.031	-0.027
57	-0.032	-0.051	0.010	-0.018	0.000
58	0.005	-0.027	0.031	0.035	-0.022
59	0.035	-0.002	0.006	-0.008	-0.026
60	-0.024	0.004	0.023	0.025	-0.052
61	0.077	0.000	-0.026	0.007	0.031
62	0.026	0.001	0.002	-0.023	0.007
63	0.001	0.005	-0.018	0.013	-0.008
64	0.007	0.001	-0.009	-0.001	-0.021
65	-0.030	0.012	0.019	0.010	-0.008
66	0.031	0.069	-0.037	-0.006	-0.004
67	-0.038	0.001	0.000	-0.018	0.018
68	0.000	-0.010	0.022	0.016	0.024
69	0.019	0.030	0.021	-0.003	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.018	1.000			
38	-0.009	-0.345	1.000		
39	0.163	-0.192	-0.090	1.000	
40	-0.148	0.033	-0.059	-0.114	1.000
41	-0.017	-0.008	0.007	-0.033	0.020
42	0.028	0.028	-0.021	0.021	-0.041
43	-0.015	0.001	0.004	-0.013	-0.009
44	0.005	0.041	-0.041	0.053	-0.077
45	-0.026	-0.001	0.014	0.006	-0.001
46	0.049	0.034	-0.033	-0.017	-0.037

47	0.034	0.022	-0.049	-0.009	-0.006
48	-0.033	-0.014	-0.047	0.052	0.010
49	-0.026	0.000	-0.051	0.022	0.036
50	-0.053	0.039	-0.030	0.004	0.012
51	-0.040	-0.008	-0.002	0.017	0.033
52	0.014	0.031	-0.037	0.010	0.042
53	0.015	0.003	0.014	-0.016	0.011
54	0.003	-0.001	-0.046	0.027	0.014
55	0.011	-0.040	0.024	0.016	-0.016
56	-0.024	-0.002	-0.007	0.018	-0.020
57	-0.006	-0.015	0.021	0.018	-0.016
58	0.005	-0.017	0.013	-0.006	0.011
59	-0.003	-0.009	0.028	-0.027	0.009
60	-0.011	0.005	-0.021	0.008	0.012
61	-0.013	0.009	0.019	0.021	-0.005
62	0.009	-0.009	-0.005	-0.003	0.005
63	-0.023	0.055	-0.008	-0.021	0.030
64	-0.041	-0.024	0.002	0.005	0.022
65	0.015	0.002	0.018	-0.009	-0.003
66	-0.004	0.055	-0.049	-0.032	0.040
67	-0.005	-0.012	0.034	-0.005	-0.003
68	0.003	0.097	-0.023	-0.017	-0.036
69	0.015	0.023	-0.031	0.003	-0.052

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	-0.267	1.000			
43	-0.203	-0.089	1.000		
44	-0.254	0.091	0.390	1.000	
45	-0.178	-0.115	0.436	0.314	1.000
46	0.040	0.251	0.007	0.148	0.161
47	-0.106	0.088	0.002	-0.010	-0.223
48	0.029	0.014	-0.018	-0.023	-0.031
49	0.003	0.064	0.010	-0.010	-0.016
50	0.016	0.070	0.019	-0.010	-0.031
51	-0.010	-0.018	0.041	0.016	0.040
52	-0.032	0.013	0.013	0.019	-0.004
53	0.027	-0.062	0.024	-0.011	0.033
54	0.003	-0.008	-0.009	-0.023	-0.014
55	0.006	0.016	0.012	-0.018	-0.009
56	0.015	0.025	-0.012	-0.017	-0.011



57	-0.046	-0.013	-0.048	-0.007	-0.036
58	0.028	0.026	-0.047	-0.011	-0.033
59	-0.025	0.003	-0.001	-0.013	0.041
60	-0.011	0.070	0.052	0.048	0.040
61	0.007	-0.004	-0.030	-0.005	-0.015
62	-0.021	-0.003	-0.017	-0.005	0.021
63	-0.026	-0.050	-0.008	-0.013	-0.010
64	-0.009	-0.055	0.026	0.037	0.003
65	-0.016	-0.046	0.037	0.002	0.031
66	0.023	-0.038	0.028	-0.012	-0.006
67	-0.030	0.010	0.012	0.030	0.024
68	0.016	0.034	0.027	0.002	-0.018
69	-0.317	0.610	0.438	0.469	0.380

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.189	1.000			
48	0.020	-0.071	1.000		
49	0.019	-0.004	0.403	1.000	
50	0.027	0.042	0.094	0.377	1.000
51	-0.010	-0.002	0.242	0.118	0.004
52	-0.003	-0.004	0.085	0.163	0.066
53	0.020	-0.048	0.027	-0.010	0.018
54	-0.019	-0.040	0.200	0.002	0.011
55	0.018	-0.037	0.064	0.081	-0.021
56	-0.025	0.018	0.016	-0.033	-0.027
57	-0.016	-0.006	0.017	-0.013	-0.016
58	0.013	-0.007	0.074	0.168	0.089
59	0.000	-0.006	0.045	0.123	0.178
60	0.026	-0.004	0.053	0.042	0.004
61	-0.008	-0.033	-0.009	0.013	-0.003
62	-0.028	-0.017	0.019	0.024	0.041
63	-0.034	0.077	-0.083	-0.202	-0.095
64	-0.032	-0.039	0.000	-0.076	-0.181
65	-0.038	0.008	0.000	-0.007	-0.032
66	-0.021	-0.003	-0.014	-0.011	0.017
67	0.001	-0.013	-0.032	-0.028	-0.021
68	-0.015	0.008	-0.012	-0.014	0.055
69	0.535	-0.116	-0.003	0.030	0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	51	52	53	54	55
51	1.000				
52	0.285	1.000			
53	0.212	0.083	1.000		
54	-0.337	-0.081	-0.042	1.000	
55	-0.109	-0.359	-0.036	0.260	1.000
56	0.036	-0.048	-0.441	0.094	0.044
57	-0.070	0.026	0.108	0.194	-0.047
58	-0.132	-0.017	-0.069	-0.144	-0.002
59	-0.009	-0.175	0.011	-0.037	-0.083
60	0.021	0.119	-0.264	0.010	-0.021
61	-0.016	-0.043	0.057	0.008	0.151
62	0.004	-0.073	0.024	-0.020	0.020
63	0.008	-0.051	-0.022	-0.038	-0.027
64	0.030	-0.001	0.039	0.020	-0.058
65	-0.016	-0.177	0.072	-0.015	0.056
66	0.006	0.044	-0.005	-0.074	-0.166
67	0.022	0.061	-0.001	-0.001	-0.001
68	0.028	0.066	-0.019	-0.033	0.000
69	0.003	-0.012	-0.020	-0.012	0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	1.000				
57	-0.472	1.000			
58	-0.048	-0.013	1.000		
59	0.012	0.001	0.294	1.000	
60	-0.034	0.082	0.189	0.030	1.000
61	-0.087	-0.175	0.083	-0.055	-0.316
62	-0.011	-0.012	0.092	0.201	-0.250
63	0.010	-0.033	-0.179	-0.094	-0.038
64	-0.022	0.054	-0.083	-0.192	-0.023
65	-0.085	0.052	-0.030	0.014	-0.205
66	0.036	-0.137	0.008	0.063	0.081
67	-0.018	0.050	-0.056	-0.213	0.042
68	0.023	-0.020	0.022	-0.020	-0.002
69	0.004	-0.039	-0.009	0.016	0.088

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.095	1.000			
63	0.008	0.002	1.000		
64	0.013	-0.060	0.269	1.000	
65	0.082	0.079	0.113	-0.002	1.000
66	-0.160	0.015	0.094	-0.021	-0.369
67	-0.074	-0.231	0.093	0.151	-0.215
68	0.041	0.039	-0.051	-0.192	0.030
69	-0.019	0.004	-0.038	-0.012	-0.028

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69
66	1.000			
67	-0.108	1.000		
68	-0.058	-0.214	1.000	
69	-0.010	0.024	-0.008	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.028	47
200	1.007	31
300	1.008	29
400	1.010	28
500	1.004	28
600	1.003	6
700	1.002	6
800	1.002	47
900	1.001	38
1000	1.001	44

These are models exploring whether single practices can account for the significant results reported in Table 4 of the main text.

The first twenty models that follow pertain to deterioration in physical health. The remaining models in the document pertain to reductions in psychological distress.

Single is a variable that denotes specific practices as stated

ACC - single practice, accumulated overtime

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-18.237                      22.632

Posterior Predictive P-Value                      0.464

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.970	0.066	0.000	0.843	1.104	*
CHOICE15	-0.073	0.024	0.002	-0.118	-0.027	*
BULLY15	0.029	0.050	0.284	-0.072	0.126	
DUTIES15	-0.032	0.028	0.129	-0.084	0.024	
PRESS15	-0.033	0.026	0.104	-0.084	0.017	
KES15	0.226	0.044	0.000	0.144	0.314	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*



PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.360	-0.010	0.016
KES15	0.001	0.008	0.436	-0.014	0.017
CHOICE15	-0.001	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.465	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	0.004	0.068	0.479	-0.139	0.135
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Thresholds

PHYCAT16\$1	1.340	0.048	0.000	1.249	1.440	*
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Residual Variances

PHYCAT16	0.019	0.015	0.000	0.002	0.059	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.067	0.022	0.002	-0.109	-0.024	*

BULLY15	0.013	0.021	0.284	-0.031	0.054	
DUTIES15	-0.026	0.023	0.129	-0.069	0.020	
PRESS15	-0.029	0.023	0.104	-0.074	0.016	
KES15	0.108	0.021	0.000	0.069	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.360	-0.022	0.033	
KES15	0.002	0.014	0.436	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.465	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	0.016	0.252	0.479	-0.478	0.526	
Thresholds PHYCAT16\$1	9.475	5.214	0.000	5.353	25.209	*
Residual Variances PHYCAT16	0.972	0.095	0.000	0.664	1.000	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.028	0.095	0.000	0.000	0.336

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>36</u>

NU	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>

LAMBDA	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>
SINGLE	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000



ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

ALPHA	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>1.000</u>	<u>0.116</u>	<u>0.145</u>	<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.116	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.125

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450533D-04				
2	0.998783D-05	0.605015D-04			
3	-0.750682D-05	-0.221193D-04	0.213867D-03		
4	0.336996D-05	0.123667D-04	-0.912683D-05	0.473269D-04	
5	0.114675D-04	0.198173D-04	-0.196250D-04	0.220974D-04	0.197369D-03
6	-0.554904D-05	-0.214191D-04	0.418893D-04	-0.152092D-04	-0.365491D-04
7	-0.292913D-05	0.183640D-05	-0.305953D-04	-0.174728D-04	0.162943D-04
8	0.698300D-05	0.479335D-05	-0.244963D-05	0.155752D-04	0.251953D-04
9	-0.578147D-05	-0.216785D-05	0.592831D-05	-0.747192D-06	-0.161567D-04
10	0.798877D-05	0.141860D-05	-0.316963D-04	-0.548432D-05	-0.183740D-04
11	-0.474303D-05	0.612888D-05	-0.215039D-04	0.298327D-05	0.114548D-04
12	0.147574D-05	-0.237757D-05	-0.110764D-04	0.133846D-05	0.169341D-04
13	0.224640D-07	0.967104D-06	-0.187489D-05	-0.685729D-06	-0.189245D-05
14	0.982593D-06	0.714797D-06	-0.305932D-05	-0.125405D-05	0.378384D-06
15	0.344458D-06	0.146790D-06	-0.301912D-05	0.343544D-06	-0.587341D-06
16	-0.659652D-06	-0.107644D-05	-0.118891D-05	0.618123D-06	-0.267025D-05
17	-0.477531D-06	-0.207921D-05	0.448876D-05	0.339830D-05	0.677599D-05
18	-0.432767D-05	-0.468782D-05	0.463675D-05	-0.748730D-05	-0.278388D-05
19	0.100724D-05	0.722429D-06	-0.135941D-05	0.184167D-06	-0.824335D-06
20	0.281265D-06	-0.269895D-06	-0.426990D-06	-0.381908D-06	-0.160219D-05
21	-0.931870D-06	-0.429978D-07	0.424733D-06	0.300266D-05	0.478678D-05
22	0.151243D-06	0.193093D-05	0.429596D-06	-0.815400D-06	0.189457D-05
23	0.990105D-06	0.784300D-06	0.126685D-05	-0.122564D-06	0.212931D-05

24	0.146863D-05	0.164441D-05	-0.283057D-05	-0.237994D-06	-0.554729D-05
25	0.111249D-06	0.220573D-05	0.875761D-05	0.132626D-05	0.639663D-05
26	0.491852D-06	0.695854D-06	0.451985D-05	-0.205540D-06	0.492828D-05
27	-0.232600D-05	0.496013D-05	0.950671D-05	0.643381D-06	0.394330D-05
28	-0.980133D-06	-0.208367D-05	-0.120073D-05	-0.423669D-06	0.212251D-05
29	-0.125012D-05	-0.865668D-06	0.433521D-05	-0.200373D-06	0.909787D-05
30	-0.151204D-06	0.875430D-06	0.126589D-05	-0.170817D-05	-0.139374D-04
31	-0.989390D-06	0.861438D-06	0.155441D-05	0.638641D-06	0.237150D-05
32	-0.131198D-05	0.505960D-06	0.634058D-05	0.168700D-05	-0.603124D-05
33	-0.129906D-05	-0.376613D-05	-0.330372D-05	-0.112691D-05	-0.592658D-05
34	-0.215889D-04	0.461245D-06	-0.952428D-05	-0.101659D-04	-0.530764D-05
35	-0.143698D-05	0.305664D-05	0.746142D-05	0.137073D-05	-0.678907D-05
36	-0.718980D-05	0.538830D-05	-0.145999D-04	-0.132214D-04	0.213598D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172645D-03				
7	-0.268441D-04	0.435179D-02			
8	-0.620214D-06	-0.366046D-03	0.190301D-02		
9	0.604231D-06	0.408987D-05	0.118984D-03	0.570085D-03	
10	-0.281126D-05	-0.332805D-04	-0.364438D-03	0.495478D-04	0.245267D-02
11	-0.511939D-05	-0.191024D-04	-0.862902D-04	0.151533D-05	-0.252081D-03
12	0.378710D-05	-0.623901D-04	0.162792D-03	-0.105704D-03	0.123291D-03
13	-0.129430D-05	-0.819269D-05	0.164525D-05	-0.137635D-05	0.131769D-05
14	-0.482179D-06	0.303472D-05	0.106267D-05	-0.139661D-05	0.456187D-05
15	0.558615D-06	-0.163089D-04	-0.185119D-05	0.235038D-05	0.755398D-05
16	0.186345D-05	-0.417616D-04	0.618509D-05	-0.334935D-05	0.979333D-05
17	0.339833D-05	-0.352258D-05	0.640608D-06	0.103135D-05	-0.262098D-05
18	0.390966D-05	-0.193968D-04	-0.203036D-05	0.231113D-05	-0.446676D-04
19	0.810616D-06	0.647146D-06	-0.340000D-05	0.184024D-05	0.799393D-05
20	0.233404D-05	-0.333818D-05	0.223921D-05	0.320593D-05	-0.320666D-05
21	0.420485D-06	-0.148649D-04	-0.593903D-05	0.155171D-05	0.395495D-05
22	-0.488304D-06	0.478406D-05	-0.505335D-06	0.249212D-05	-0.149033D-04
23	-0.233658D-05	-0.842892D-05	0.414994D-05	-0.567846D-05	0.218920D-04
24	-0.167524D-05	-0.703357D-05	0.523658D-05	0.318456D-05	0.100945D-04
25	-0.221664D-05	-0.256417D-04	0.566968D-05	0.310159D-05	0.145410D-04
26	-0.192436D-06	0.646988D-05	-0.251017D-05	0.512221D-05	-0.300197D-05
27	-0.275491D-05	0.178666D-04	0.802545D-06	-0.623250D-06	-0.174586D-04
28	0.297004D-05	0.638899D-05	-0.948848D-05	-0.593803D-05	-0.896479D-05
29	0.228056D-05	0.175248D-04	-0.129797D-04	-0.493511D-05	-0.352259D-06
30	0.105560D-04	-0.108104D-04	0.680997D-06	-0.129167D-05	-0.217369D-04
31	-0.325742D-05	-0.540559D-05	-0.991680D-06	-0.653560D-05	-0.514956D-05

32	-0.288558D-05	-0.379652D-05	-0.986681D-06	-0.391760D-05	0.275073D-04
33	0.799319D-05	-0.849875D-04	0.210952D-04	0.437937D-05	-0.265178D-04
34	0.238391D-05	-0.813161D-04	0.744596D-04	0.213244D-04	-0.187833D-04
35	-0.439225D-05	0.359111D-04	-0.140031D-04	-0.145215D-04	-0.277835D-05
36	-0.178331D-04	0.783720D-03	0.141250D-03	0.704579D-05	-0.437949D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.658107D-03				
12	0.130007D-03	0.781081D-03			
13	0.110922D-05	0.434820D-05	0.209809D-04		
14	0.184899D-05	0.187851D-05	0.447246D-05	0.131018D-04	
15	0.413954D-05	0.161917D-05	0.354409D-06	0.529095D-05	0.319537D-04
16	-0.977862D-05	0.390383D-05	-0.391621D-05	-0.438103D-05	0.581832D-06
17	0.292088D-05	0.748794D-05	-0.347547D-05	-0.414942D-05	-0.100671D-04
18	0.112689D-04	-0.273464D-05	0.256951D-05	0.534552D-06	0.119391D-05
19	0.545490D-05	0.378273D-06	0.954639D-06	0.225429D-05	0.445874D-06
20	0.200632D-05	-0.656378D-06	0.236773D-06	0.746056D-06	0.514804D-05
21	0.226603D-06	0.225326D-05	-0.855378D-06	-0.883246D-06	0.683809D-07
22	0.716888D-06	-0.395975D-05	0.784190D-06	0.380239D-06	0.513115D-06
23	-0.322592D-05	0.689093D-05	0.247738D-05	0.392789D-05	0.328926D-06
24	-0.107573D-05	0.368729D-06	0.165520D-05	0.334423D-05	0.101630D-04
25	-0.918765D-05	0.131325D-04	-0.216402D-05	-0.187380D-05	0.246916D-05
26	0.212678D-05	0.289168D-05	0.807590D-06	-0.414427D-06	0.741761D-06
27	0.881055D-05	0.280665D-05	-0.298944D-06	0.135359D-05	0.209524D-05
28	0.250073D-05	0.303516D-05	-0.316227D-05	-0.404429D-05	-0.566773D-06
29	-0.107814D-04	-0.405999D-05	-0.479619D-07	-0.266955D-05	-0.121459D-04
30	-0.126463D-05	-0.243436D-04	0.272948D-05	0.143071D-05	0.293698D-06
31	-0.464226D-05	-0.850511D-06	-0.653480D-06	-0.230717D-06	-0.132663D-05
32	-0.357460D-05	0.106397D-05	-0.447887D-06	-0.128366D-05	-0.190873D-05
33	0.310063D-05	0.207832D-04	0.170846D-05	0.105551D-05	0.185410D-05
34	0.220870D-05	0.497861D-04	-0.721283D-05	-0.121596D-04	0.574382D-05
35	0.885190D-05	0.153349D-04	0.308402D-05	-0.580204D-06	0.197070D-05
36	-0.176074D-04	0.114208D-04	-0.554683D-05	-0.886941D-05	0.490510D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487877D-04				
17	0.116854D-04	0.630627D-04			
18	-0.166713D-04	-0.375884D-04	0.455479D-03		

19	-0.190875D-05	-0.182661D-05	0.263138D-05	0.104691D-04	
20	-0.815518D-06	-0.456377D-05	0.521582D-06	0.301749D-05	0.133090D-04
21	0.305068D-05	0.110323D-04	-0.288251D-04	-0.233622D-05	-0.435056D-05
22	0.847274D-06	-0.337727D-05	-0.200712D-06	0.200431D-05	0.495621D-05
23	-0.285420D-05	0.885108D-07	0.228670D-05	0.498526D-05	0.123847D-05
24	-0.377769D-05	-0.690098D-05	-0.112144D-05	0.979659D-06	0.684330D-05
25	0.869838D-05	0.159890D-04	-0.477185D-04	-0.335271D-05	-0.110118D-05
26	-0.298093D-05	-0.138560D-05	0.431475D-05	0.225542D-05	0.579128D-05
27	-0.610788D-05	-0.439169D-05	0.195071D-04	0.496690D-05	0.711780D-05
28	0.619158D-05	0.382671D-05	-0.405775D-05	-0.351380D-05	-0.126081D-05
29	0.131519D-06	0.123597D-04	-0.327248D-05	-0.154905D-05	-0.501917D-05
30	-0.669855D-05	-0.249379D-04	0.646199D-04	0.186280D-05	0.143671D-05
31	0.941134D-06	0.612767D-05	-0.172111D-05	-0.252802D-05	-0.610896D-05
32	0.551944D-05	0.666109D-05	-0.160318D-04	-0.137160D-05	-0.428437D-05
33	0.444536D-05	-0.113149D-04	0.774539D-05	0.957596D-06	0.261515D-05
34	0.149794D-04	-0.413897D-05	-0.454498D-04	0.342781D-05	0.451150D-05
35	-0.273038D-05	-0.143485D-05	-0.302664D-06	0.113192D-05	0.977224D-06
36	-0.284874D-05	0.429220D-05	-0.428949D-04	0.456947D-06	-0.302284D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478284D-04				
22	-0.602879D-05	0.233634D-04			
23	-0.982587D-06	0.153867D-05	0.461742D-04		
24	-0.348131D-05	0.420734D-05	0.970786D-05	0.590964D-04	
25	0.235144D-04	-0.166025D-05	-0.574520D-05	-0.161966D-04	0.208198D-03
26	-0.462448D-05	0.106558D-04	0.268511D-05	0.129433D-04	-0.794016D-05
27	-0.507971D-05	0.100935D-04	0.146296D-04	0.375327D-04	-0.198688D-04
28	0.673021D-06	-0.177940D-05	-0.912887D-05	-0.160361D-05	-0.701068D-07
29	0.282247D-05	-0.238597D-05	-0.317072D-05	-0.137659D-04	0.415254D-05
30	-0.175183D-04	0.318707D-05	0.354447D-07	0.618220D-05	-0.443955D-04
31	0.825232D-05	-0.792349D-05	-0.265750D-05	-0.586853D-05	0.506530D-05
32	0.435631D-05	-0.447755D-05	-0.584848D-05	-0.203204D-04	0.221426D-04
33	-0.700399D-05	0.537387D-05	0.214408D-05	0.614409D-05	-0.109216D-04
34	-0.683695D-05	-0.261560D-05	-0.131218D-04	0.454127D-05	0.285835D-04
35	0.163811D-05	0.788616D-06	-0.144306D-05	0.327491D-05	0.849692D-05
36	0.330570D-05	0.764062D-06	-0.941545D-05	0.993778D-05	0.391760D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475461D-04					
27	0.414813D-04	0.387693D-03				
28	-0.858160D-06	-0.485151D-05	0.375046D-04			
29	-0.194243D-05	-0.877620D-05	0.797125D-05	0.516352D-04		
30	0.462562D-05	0.262746D-04	-0.700069D-05	-0.186012D-04	0.191129D-03	
31	-0.957434D-05	-0.967876D-05	0.279916D-05	0.130451D-04	-0.110203D-04	
32	-0.152215D-04	-0.649141D-04	0.421871D-05	0.198543D-04	-0.194339D-04	
33	0.632615D-05	0.118332D-04	-0.747081D-05	-0.373150D-04	0.567529D-04	
34	0.648819D-05	0.187337D-04	0.679534D-05	-0.262991D-05	-0.816505D-05	
35	0.270836D-05	0.496826D-05	-0.138546D-05	-0.368641D-05	0.367347D-05	
36	0.103621D-04	0.227645D-04	-0.335939D-05	-0.114408D-07	-0.101492D-04	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422965D-04				
32	0.239148D-04	0.160912D-03			
33	-0.287858D-04	-0.530724D-04	0.285421D-03		
34	0.485651D-05	-0.168295D-05	-0.207155D-04	0.457090D-02	
35	-0.603168D-05	0.383654D-05	-0.495981D-05	-0.100132D-03	0.218306D-03
36	0.835729D-06	-0.287716D-06	-0.289859D-04	0.218939D-02	0.260834D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.233782D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.076	-0.194	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.004	-0.032	-0.039	0.018
8	0.024	0.014	-0.004	0.052	0.041
9	-0.036	-0.012	0.017	-0.005	-0.048
10	0.024	0.004	-0.044	-0.016	-0.026
11	-0.028	0.031	-0.057	0.017	0.032



12	0.008	-0.011	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.029
14	0.040	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.011	-0.010	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.025	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.028	0.028	-0.025	-0.005	-0.051
25	0.001	0.020	0.042	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.018	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.015	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.048	0.001	-0.010	-0.022	-0.006
35	-0.014	0.027	0.035	0.013	-0.033
36	-0.022	0.014	-0.021	-0.040	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.031	1.000			
8	-0.001	-0.127	1.000		
9	0.002	0.003	0.114	1.000	
10	-0.004	-0.010	-0.169	0.042	1.000
11	-0.015	-0.011	-0.077	0.002	-0.198
12	0.010	-0.034	0.134	-0.158	0.089
13	-0.022	-0.027	0.008	-0.013	0.006
14	-0.010	0.013	0.007	-0.016	0.025
15	0.008	-0.044	-0.008	0.017	0.027
16	0.020	-0.091	0.020	-0.020	0.028
17	0.033	-0.007	0.002	0.005	-0.007
18	0.014	-0.014	-0.002	0.005	-0.042
19	0.019	0.003	-0.024	0.024	0.050

20	0.049	-0.014	0.014	0.037	-0.018
21	0.005	-0.033	-0.020	0.009	0.012
22	-0.008	0.015	-0.002	0.022	-0.062
23	-0.026	-0.019	0.014	-0.035	0.065
24	-0.017	-0.014	0.016	0.017	0.027
25	-0.012	-0.027	0.009	0.009	0.020
26	-0.002	0.014	-0.008	0.031	-0.009
27	-0.011	0.014	0.001	-0.001	-0.018
28	0.037	0.016	-0.036	-0.041	-0.030
29	0.024	0.037	-0.041	-0.029	-0.001
30	0.058	-0.012	0.001	-0.004	-0.032
31	-0.038	-0.013	-0.003	-0.042	-0.016
32	-0.017	-0.005	-0.002	-0.013	0.044
33	0.036	-0.076	0.029	0.011	-0.032
34	0.003	-0.018	0.025	0.013	-0.006
35	-0.023	0.037	-0.022	-0.041	-0.004
36	-0.028	0.246	0.067	0.006	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.009	0.034	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.055	0.020	-0.122	-0.173	0.015
17	0.014	0.034	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.066	0.004	0.064	0.192	0.024
20	0.021	-0.006	0.014	0.056	0.250
21	0.001	0.012	-0.027	-0.035	0.002
22	0.006	-0.029	0.035	0.022	0.019
23	-0.019	0.036	0.080	0.160	0.009
24	-0.005	0.002	0.047	0.120	0.234
25	-0.025	0.033	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.017	0.005	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.058	-0.020	-0.001	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.028	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.003	-0.008	-0.028	-0.027

33	0.007	0.044	0.022	0.017	0.019
34	0.001	0.026	-0.023	-0.050	0.015
35	0.023	0.037	0.046	-0.011	0.024
36	-0.014	0.008	-0.025	-0.051	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.021	0.018	0.042
34	0.032	-0.008	-0.031	0.016	0.018
35	-0.026	-0.012	-0.001	0.024	0.018
36	-0.008	0.011	-0.042	0.003	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.015	-0.008	-0.029	0.009	0.029
35	0.016	0.011	-0.014	0.029	0.040
36	0.010	0.003	-0.029	0.027	0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.214	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.014	0.014	0.016	-0.005	-0.009
35	0.027	0.017	-0.015	-0.035	0.018
36	0.031	0.024	-0.011	0.000	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.011	-0.002	-0.018	1.000	
35	-0.063	0.020	-0.020	-0.100	1.000
36	0.003	0.000	-0.035	0.670	0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36	1.000
----	-------

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	10
200	1.007	33
300	1.008	8
400	1.009	33
500	1.005	3
600	1.004	35
700	1.006	35
800	1.003	35
900	1.001	35
1000	1.000	1

ACT - single practice, active governance

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between



the Observed and the Replicated Chi-Square Values

-18.002                      22.625

Posterior Predictive P-Value                      0.477

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.970	0.066	0.000	0.843	1.105	*
CHOICE15	-0.070	0.024	0.003	-0.116	-0.024	*
BULLY15	0.032	0.050	0.270	-0.069	0.128	
DUTIES15	-0.033	0.028	0.127	-0.084	0.024	
PRESS15	-0.033	0.026	0.107	-0.084	0.018	
KES15	0.226	0.044	0.000	0.144	0.314	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.358	-0.010	0.016
KES15	0.001	0.008	0.435	-0.014	0.017
CHOICE15	-0.001	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.465	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.073	0.037	0.023	-0.147	-0.003	*
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Thresholds

PHYCAT16\$1	1.330	0.035	0.000	1.261	1.401	*
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Residual Variances

PHYCAT16	0.016	0.013	0.000	0.001	0.052	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.415	0.023	0.000	0.370	0.460	*
CHOICE15	-0.065	0.022	0.003	-0.107	-0.022	*

BULLY15	0.014	0.021	0.270	-0.030	0.055	
DUTIES15	-0.027	0.023	0.127	-0.069	0.020	
PRESS15	-0.029	0.023	0.107	-0.073	0.016	
KES15	0.108	0.021	0.000	0.069	0.149	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.194	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.358	-0.022	0.033	
KES15	0.002	0.014	0.435	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.465	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.491	0.222	0.023	-0.864	-0.022	*
Thresholds PHYCAT16\$1	9.024	4.233	0.000	5.347	21.897	*
Residual Variances PHYCAT16	0.758	0.205	0.000	0.254	0.995	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.242	0.205	0.000	0.005	0.746

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
36

NU	
PHYCAT16	SINGLE
0	0

LAMBDA	
PHYCAT16	SINGLE
0	0
SINGLE	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<hr/> 0	<hr/>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<hr/> 0	<hr/> 0

BETA	PHYCAT16	SINGLE
PHYCAT16	<hr/> 0	<hr/> 34
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<hr/> 35	<hr/>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<hr/> 0.000

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>



0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	<u>0.000</u>
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.433

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450515D-04				
2	0.997852D-05	0.604930D-04			
3	-0.751676D-05	-0.221256D-04	0.213885D-03		
4	0.337134D-05	0.123650D-04	-0.913301D-05	0.473264D-04	
5	0.114668D-04	0.198145D-04	-0.196325D-04	0.220975D-04	0.197372D-03
6	-0.554186D-05	-0.214126D-04	0.419019D-04	-0.152095D-04	-0.365512D-04
7	-0.319664D-05	0.125676D-05	-0.307098D-04	-0.166286D-04	0.168537D-04
8	0.699504D-05	0.478988D-05	-0.234282D-05	0.155524D-04	0.253260D-04
9	-0.547044D-05	-0.270924D-05	0.607697D-05	-0.893663D-06	-0.163908D-04
10	0.792163D-05	0.814411D-06	-0.322607D-04	-0.546489D-05	-0.187963D-04
11	-0.464741D-05	0.602168D-05	-0.212768D-04	0.281387D-05	0.114106D-04
12	0.139253D-05	-0.222421D-05	-0.109955D-04	0.127786D-05	0.168181D-04
13	0.235204D-07	0.962898D-06	-0.186934D-05	-0.689465D-06	-0.190708D-05
14	0.986814D-06	0.715481D-06	-0.305725D-05	-0.125468D-05	0.373271D-06
15	0.348524D-06	0.149649D-06	-0.302015D-05	0.344814D-06	-0.587216D-06
16	-0.664051D-06	-0.107651D-05	-0.119563D-05	0.619060D-06	-0.267090D-05
17	-0.474245D-06	-0.207396D-05	0.448333D-05	0.339859D-05	0.677518D-05
18	-0.431696D-05	-0.468893D-05	0.462993D-05	-0.748066D-05	-0.279695D-05
19	0.101001D-05	0.723085D-06	-0.135700D-05	0.186200D-06	-0.828133D-06
20	0.284155D-06	-0.267511D-06	-0.426526D-06	-0.380877D-06	-0.160479D-05
21	-0.932207D-06	-0.411509D-07	0.424017D-06	0.300400D-05	0.478788D-05
22	0.152519D-06	0.193234D-05	0.428792D-06	-0.814074D-06	0.189297D-05
23	0.987920D-06	0.785192D-06	0.127209D-05	-0.123526D-06	0.213025D-05

24	0.146810D-05	0.164793D-05	-0.283554D-05	-0.238091D-06	-0.554540D-05
25	0.115903D-06	0.221430D-05	0.875082D-05	0.133044D-05	0.641183D-05
26	0.493982D-06	0.699172D-06	0.451415D-05	-0.204586D-06	0.492893D-05
27	-0.230320D-05	0.497793D-05	0.949033D-05	0.649217D-06	0.395576D-05
28	-0.984073D-06	-0.208047D-05	-0.121065D-05	-0.422033D-06	0.211601D-05
29	-0.125521D-05	-0.870088D-06	0.433495D-05	-0.201301D-06	0.909042D-05
30	-0.146779D-06	0.875588D-06	0.126123D-05	-0.170871D-05	-0.139289D-04
31	-0.992055D-06	0.858333D-06	0.155606D-05	0.635980D-06	0.237100D-05
32	-0.130497D-05	0.506392D-06	0.633865D-05	0.168783D-05	-0.603231D-05
33	-0.128678D-05	-0.375629D-05	-0.330090D-05	-0.112079D-05	-0.591310D-05
34	-0.818582D-05	0.112092D-04	0.142590D-06	-0.465780D-05	0.313658D-05
35	-0.160515D-05	0.292275D-05	0.820194D-05	0.191609D-06	-0.609031D-05
36	0.117411D-05	0.620493D-05	-0.943998D-05	-0.844304D-05	0.249493D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172645D-03				
7	-0.255094D-04	0.435837D-02			
8	-0.741496D-06	-0.362222D-03	0.190673D-02		
9	0.112060D-05	0.278600D-05	0.117634D-03	0.571956D-03	
10	-0.234243D-05	-0.326401D-04	-0.364063D-03	0.527174D-04	0.245287D-02
11	-0.517273D-05	-0.199310D-04	-0.879128D-04	0.111263D-05	-0.251439D-03
12	0.340711D-05	-0.587276D-04	0.161778D-03	-0.108492D-03	0.123227D-03
13	-0.127924D-05	-0.783490D-05	0.173437D-05	-0.171867D-05	0.107351D-05
14	-0.480857D-06	0.285330D-05	0.111730D-05	-0.132037D-05	0.440639D-05
15	0.554397D-06	-0.169406D-04	-0.187999D-05	0.231095D-05	0.752912D-05
16	0.185181D-05	-0.419010D-04	0.615973D-05	-0.374423D-05	0.980018D-05
17	0.339354D-05	-0.292325D-05	0.606102D-06	0.930470D-06	-0.241562D-05
18	0.390949D-05	-0.174209D-04	-0.160738D-05	0.312864D-05	-0.442981D-04
19	0.814607D-06	0.566990D-06	-0.342177D-05	0.188555D-05	0.793787D-05
20	0.233433D-05	-0.337066D-05	0.222695D-05	0.300869D-05	-0.318432D-05
21	0.417804D-06	-0.147808D-04	-0.587216D-05	0.156914D-05	0.399495D-05
22	-0.487312D-06	0.480553D-05	-0.429760D-06	0.250436D-05	-0.149340D-04
23	-0.233621D-05	-0.878109D-05	0.432216D-05	-0.567912D-05	0.217200D-04
24	-0.167565D-05	-0.807836D-05	0.532631D-05	0.267407D-05	0.986136D-05
25	-0.221544D-05	-0.245279D-04	0.560531D-05	0.282959D-05	0.144549D-04
26	-0.191974D-06	0.609759D-05	-0.235573D-05	0.488721D-05	-0.299706D-05
27	-0.276404D-05	0.193217D-04	0.163693D-05	-0.277192D-06	-0.168888D-04
28	0.295981D-05	0.663663D-05	-0.947882D-05	-0.627177D-05	-0.898320D-05
29	0.228162D-05	0.176132D-04	-0.131467D-04	-0.484679D-05	-0.445079D-06
30	0.105658D-04	-0.113347D-04	0.721089D-06	-0.123289D-05	-0.218001D-04
31	-0.325969D-05	-0.612252D-05	-0.131495D-05	-0.630984D-05	-0.512550D-05

32	-0.288702D-05	-0.243607D-05	-0.113275D-05	-0.375042D-05	0.275528D-04
33	0.799233D-05	-0.839795D-04	0.213258D-04	0.510696D-05	-0.255883D-04
34	-0.197896D-06	-0.181290D-04	0.619581D-04	-0.351065D-04	-0.234206D-04
35	-0.328046D-05	0.321679D-04	-0.109126D-04	-0.197369D-04	-0.739316D-05
36	-0.189978D-04	0.821728D-03	0.116331D-03	-0.146377D-04	-0.379471D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.658790D-03				
12	0.129862D-03	0.781957D-03			
13	0.106087D-05	0.440419D-05	0.209825D-04		
14	0.183991D-05	0.188609D-05	0.447298D-05	0.131017D-04	
15	0.421799D-05	0.167717D-05	0.353203D-06	0.529120D-05	0.319565D-04
16	-0.981246D-05	0.406399D-05	-0.392099D-05	-0.438086D-05	0.577843D-06
17	0.279956D-05	0.735611D-05	-0.347425D-05	-0.414655D-05	-0.100666D-04
18	0.110968D-04	-0.321610D-05	0.256605D-05	0.538782D-06	0.119927D-05
19	0.543318D-05	0.375216D-06	0.956493D-06	0.225476D-05	0.446676D-06
20	0.199212D-05	-0.638185D-06	0.237481D-06	0.746625D-06	0.514920D-05
21	0.320900D-06	0.221668D-05	-0.854419D-06	-0.882756D-06	0.686771D-07
22	0.701709D-06	-0.396572D-05	0.784258D-06	0.381493D-06	0.514878D-06
23	-0.319133D-05	0.701272D-05	0.247793D-05	0.392819D-05	0.332209D-06
24	-0.968669D-06	0.716628D-06	0.165498D-05	0.334425D-05	0.101650D-04
25	-0.905385D-05	0.130108D-04	-0.216113D-05	-0.187023D-05	0.247306D-05
26	0.211532D-05	0.295567D-05	0.808783D-06	-0.414178D-06	0.742587D-06
27	0.891134D-05	0.282532D-05	-0.296773D-06	0.135784D-05	0.210348D-05
28	0.249620D-05	0.315271D-05	-0.316082D-05	-0.404504D-05	-0.566406D-06
29	-0.108503D-04	-0.412094D-05	-0.476352D-07	-0.267307D-05	-0.121485D-04
30	-0.135332D-05	-0.245511D-04	0.271869D-05	0.142983D-05	0.293995D-06
31	-0.456506D-05	-0.922977D-06	-0.654473D-06	-0.232499D-06	-0.132782D-05
32	-0.364665D-05	0.879187D-06	-0.443055D-06	-0.128048D-05	-0.190775D-05
33	0.319732D-05	0.203983D-04	0.170554D-05	0.106180D-05	0.186087D-05
34	-0.187641D-04	0.108055D-04	-0.966722D-06	-0.256604D-05	0.213599D-05
35	0.640361D-05	0.182008D-04	0.278839D-05	-0.843525D-06	0.181759D-05
36	-0.218830D-04	-0.102565D-04	-0.181631D-05	-0.295937D-05	0.247946D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487876D-04				
17	0.116879D-04	0.630636D-04			
18	-0.166501D-04	-0.375865D-04	0.455395D-03		

19	-0.191155D-05	-0.182529D-05	0.264174D-05	0.104697D-04	
20	-0.817609D-06	-0.456184D-05	0.522154D-06	0.301803D-05	0.133097D-04
21	0.305091D-05	0.110317D-04	-0.288210D-04	-0.233323D-05	-0.434987D-05
22	0.845888D-06	-0.337708D-05	-0.194889D-06	0.200373D-05	0.495584D-05
23	-0.284880D-05	0.896230D-07	0.229041D-05	0.498447D-05	0.124078D-05
24	-0.377907D-05	-0.690040D-05	-0.111628D-05	0.978898D-06	0.684431D-05
25	0.869495D-05	0.159968D-04	-0.477151D-04	-0.335304D-05	-0.110355D-05
26	-0.298492D-05	-0.138530D-05	0.431201D-05	0.225273D-05	0.579040D-05
27	-0.611175D-05	-0.439401D-05	0.195083D-04	0.496605D-05	0.711675D-05
28	0.619350D-05	0.382613D-05	-0.405655D-05	-0.351234D-05	-0.126122D-05
29	0.138526D-06	0.123619D-04	-0.327684D-05	-0.154917D-05	-0.502031D-05
30	-0.670010D-05	-0.249388D-04	0.646170D-04	0.186050D-05	0.143585D-05
31	0.947664D-06	0.612844D-05	-0.172888D-05	-0.252610D-05	-0.610800D-05
32	0.551767D-05	0.665998D-05	-0.160395D-04	-0.137195D-05	-0.428560D-05
33	0.443397D-05	-0.113253D-04	0.777669D-05	0.955664D-06	0.261601D-05
34	0.103187D-04	-0.216263D-05	-0.177148D-04	0.233660D-06	0.308226D-05
35	-0.196278D-05	-0.186872D-05	-0.122276D-05	0.847790D-06	0.510768D-06
36	-0.893109D-05	0.616518D-05	-0.249703D-04	-0.116336D-05	-0.446221D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478253D-04				
22	-0.602983D-05	0.233611D-04			
23	-0.982683D-06	0.153864D-05	0.461756D-04		
24	-0.348050D-05	0.420679D-05	0.971103D-05	0.591040D-04	
25	0.235142D-04	-0.166092D-05	-0.574159D-05	-0.162007D-04	0.208194D-03
26	-0.462345D-05	0.106538D-04	0.268688D-05	0.129452D-04	-0.794500D-05
27	-0.508100D-05	0.100917D-04	0.146316D-04	0.375339D-04	-0.198602D-04
28	0.675236D-06	-0.178010D-05	-0.912399D-05	-0.160121D-05	-0.767595D-07
29	0.282377D-05	-0.238695D-05	-0.317328D-05	-0.137680D-04	0.414810D-05
30	-0.175184D-04	0.319056D-05	0.343445D-07	0.618274D-05	-0.443998D-04
31	0.825250D-05	-0.792214D-05	-0.265379D-05	-0.586558D-05	0.506384D-05
32	0.435990D-05	-0.447515D-05	-0.584165D-05	-0.203177D-04	0.221399D-04
33	-0.701188D-05	0.537344D-05	0.213864D-05	0.613999D-05	-0.109223D-04
34	-0.424241D-05	-0.206491D-05	-0.636988D-06	0.128786D-04	0.186677D-05
35	0.228486D-05	0.824323D-06	-0.905787D-06	0.361790D-05	0.755855D-05
36	0.601602D-05	0.159351D-05	-0.273815D-05	0.903735D-05	0.251378D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30



26	0.475443D-04					
27	0.414785D-04	0.387696D-03				
28	-0.860592D-06	-0.485348D-05	0.375064D-04			
29	-0.194477D-05	-0.878274D-05	0.797175D-05	0.516376D-04		
30	0.462922D-05	0.262722D-04	-0.700647D-05	-0.186108D-04	0.191139D-03	
31	-0.957172D-05	-0.967593D-05	0.279974D-05	0.130456D-04	-0.110247D-04	
32	-0.152191D-04	-0.649126D-04	0.421614D-05	0.198547D-04	-0.194440D-04	
33	0.632419D-05	0.118295D-04	-0.747497D-05	-0.373225D-04	0.567852D-04	
34	0.389233D-05	-0.658271D-05	0.533576D-05	0.506875D-05	-0.125513D-05	
35	0.256843D-05	0.533571D-05	-0.450497D-06	-0.210691D-05	0.282393D-05	
36	0.762753D-05	0.152390D-04	-0.568249D-05	0.232540D-05	-0.733775D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422946D-04				
32	0.239135D-04	0.160906D-03			
33	-0.287862D-04	-0.530734D-04	0.285434D-03		
34	0.854740D-05	-0.652597D-05	-0.325897D-04	0.133923D-02	
35	-0.459671D-05	0.384539D-05	-0.358263D-05	-0.578653D-04	0.171369D-03
36	-0.143976D-05	0.329728D-06	-0.221369D-04	0.179503D-03	0.629921D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.125059D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.002	-0.032	-0.037	0.018
8	0.024	0.014	-0.004	0.052	0.041
9	-0.034	-0.015	0.017	-0.005	-0.049
10	0.024	0.002	-0.045	-0.016	-0.027
11	-0.027	0.030	-0.057	0.016	0.032

12	0.007	-0.010	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.047	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.028	0.028	-0.025	-0.005	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.033	0.033	0.005	0.014
28	-0.024	-0.044	-0.014	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.033	0.039	0.000	-0.019	0.006
35	-0.018	0.029	0.043	0.002	-0.033
36	0.005	0.023	-0.018	-0.035	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.029	1.000			
8	-0.001	-0.126	1.000		
9	0.004	0.002	0.113	1.000	
10	-0.004	-0.010	-0.168	0.045	1.000
11	-0.015	-0.012	-0.078	0.002	-0.198
12	0.009	-0.032	0.132	-0.162	0.089
13	-0.021	-0.026	0.009	-0.016	0.005
14	-0.010	0.012	0.007	-0.015	0.025
15	0.007	-0.045	-0.008	0.017	0.027
16	0.020	-0.091	0.020	-0.022	0.028
17	0.033	-0.006	0.002	0.005	-0.006
18	0.014	-0.012	-0.002	0.006	-0.042
19	0.019	0.003	-0.024	0.024	0.050

20	0.049	-0.014	0.014	0.034	-0.018
21	0.005	-0.032	-0.019	0.009	0.012
22	-0.008	0.015	-0.002	0.022	-0.062
23	-0.026	-0.020	0.015	-0.035	0.065
24	-0.017	-0.016	0.016	0.015	0.026
25	-0.012	-0.026	0.009	0.008	0.020
26	-0.002	0.013	-0.008	0.030	-0.009
27	-0.011	0.015	0.002	-0.001	-0.017
28	0.037	0.016	-0.035	-0.043	-0.030
29	0.024	0.037	-0.042	-0.028	-0.001
30	0.058	-0.012	0.001	-0.004	-0.032
31	-0.038	-0.014	-0.005	-0.041	-0.016
32	-0.017	-0.003	-0.002	-0.012	0.044
33	0.036	-0.075	0.029	0.013	-0.031
34	0.000	-0.008	0.039	-0.040	-0.013
35	-0.019	0.037	-0.019	-0.063	-0.011
36	-0.041	0.352	0.075	-0.017	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.009	0.034	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.011	0.014	0.259	1.000
16	-0.055	0.021	-0.123	-0.173	0.015
17	0.014	0.033	-0.096	-0.144	-0.224
18	0.020	-0.005	0.026	0.007	0.010
19	0.065	0.004	0.065	0.193	0.024
20	0.021	-0.006	0.014	0.057	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.006	-0.029	0.035	0.022	0.019
23	-0.018	0.037	0.080	0.160	0.009
24	-0.005	0.003	0.047	0.120	0.234
25	-0.024	0.032	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.018	0.005	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.059	-0.021	-0.001	-0.103	-0.299
30	-0.004	-0.064	0.043	0.029	0.004
31	-0.027	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027

33	0.007	0.043	0.022	0.017	0.019
34	-0.020	0.011	-0.006	-0.019	0.010
35	0.019	0.050	0.047	-0.018	0.025
36	-0.024	-0.010	-0.011	-0.023	0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.157	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.017	0.042
34	0.040	-0.007	-0.023	0.002	0.023
35	-0.021	-0.018	-0.004	0.020	0.011
36	-0.036	0.022	-0.033	-0.010	-0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.017	-0.012	-0.003	0.046	0.004
35	0.025	0.013	-0.010	0.036	0.040
36	0.025	0.009	-0.011	0.033	0.049

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.015	-0.009	0.024	0.019	-0.002
35	0.028	0.021	-0.006	-0.022	0.016
36	0.031	0.022	-0.026	0.009	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.036	-0.014	-0.053	1.000	
35	-0.054	0.023	-0.016	-0.121	1.000
36	-0.006	0.001	-0.037	0.139	0.136

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.018	35
200	1.012	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.006	35
700	1.007	35
800	1.003	35
900	1.002	35
1000	1.000	36

EAT - single practice, healthy eating

SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES



```
PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000
```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-16.989                      21.633

Posterior Predictive P-Value                      0.464

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.970	0.066	0.000	0.843	1.105	*
CHOICE15	-0.072	0.024	0.002	-0.117	-0.025	*
BULLY15	0.031	0.050	0.274	-0.070	0.127	
DUTIES15	-0.032	0.028	0.131	-0.083	0.024	
PRESS15	-0.032	0.026	0.110	-0.083	0.018	
KES15	0.225	0.044	0.000	0.143	0.315	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.436	-0.014	0.017
CHOICE15	-0.001	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.465	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.052	0.036	0.068	-0.126	0.014
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Thresholds

PHYCAT16\$1	1.321	0.038	0.000	1.244	1.397	*
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Residual Variances

PHYCAT16	0.018	0.014	0.000	0.002	0.056	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.066	0.022	0.002	-0.108	-0.023	*

BULLY15	0.013	0.021	0.274	-0.030	0.055	
DUTIES15	-0.026	0.023	0.131	-0.068	0.020	
PRESS15	-0.029	0.023	0.110	-0.073	0.016	
KES15	0.107	0.021	0.000	0.068	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.436	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.465	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.374	0.237	0.068	-0.793	0.113	
Thresholds PHYCAT16\$1	8.990	4.478	0.000	5.260	22.029	*
Residual Variances PHYCAT16	0.860	0.175	0.000	0.372	0.999	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.020	0.000	0.177	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.140	0.175	0.000	0.001	0.628

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>          </u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>          </u>
36

NU	
PHYCAT16	SINGLE
<u>          </u>	<u>          </u>
0	0

	LAMBDA	
	PHYCAT16	SINGLE
PHYCAT16	<u>          </u>	<u>          </u>
SINGLE	0	0
	0	0

THETA



	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

# STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

ALPHA	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>1.000</u>	<u>0.116</u>	<u>0.145</u>	<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.116	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.381

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450505D-04				
2	0.998451D-05	0.605005D-04			
3	-0.751991D-05	-0.221279D-04	0.213889D-03		
4	0.337241D-05	0.123671D-04	-0.913240D-05	0.473274D-04	
5	0.114671D-04	0.198158D-04	-0.196314D-04	0.220995D-04	0.197369D-03
6	-0.555039D-05	-0.214206D-04	0.419045D-04	-0.152117D-04	-0.365494D-04
7	-0.331605D-05	0.144922D-05	-0.314511D-04	-0.173642D-04	0.167860D-04
8	0.684707D-05	0.514473D-05	-0.206450D-05	0.155323D-04	0.252544D-04
9	-0.552834D-05	-0.237198D-05	0.595571D-05	-0.819478D-06	-0.160384D-04
10	0.796777D-05	0.110041D-05	-0.324314D-04	-0.540700D-05	-0.184328D-04
11	-0.462440D-05	0.594308D-05	-0.217869D-04	0.295279D-05	0.115467D-04
12	0.160139D-05	-0.248602D-05	-0.110197D-04	0.128496D-05	0.167955D-04
13	0.213661D-07	0.964170D-06	-0.187044D-05	-0.688362D-06	-0.190543D-05
14	0.983318D-06	0.714173D-06	-0.305753D-05	-0.125389D-05	0.375608D-06
15	0.345199D-06	0.147026D-06	-0.302134D-05	0.345469D-06	-0.586355D-06
16	-0.658495D-06	-0.107522D-05	-0.119218D-05	0.616091D-06	-0.266121D-05
17	-0.472279D-06	-0.207462D-05	0.448580D-05	0.339752D-05	0.678046D-05
18	-0.433674D-05	-0.469622D-05	0.463879D-05	-0.748584D-05	-0.280224D-05
19	0.100822D-05	0.723814D-06	-0.135739D-05	0.184747D-06	-0.826373D-06
20	0.283481D-06	-0.267636D-06	-0.428559D-06	-0.381209D-06	-0.160312D-05
21	-0.931302D-06	-0.432765D-07	0.426370D-06	0.300238D-05	0.478920D-05
22	0.152009D-06	0.193251D-05	0.428964D-06	-0.814300D-06	0.189276D-05
23	0.988810D-06	0.783987D-06	0.126683D-05	-0.124527D-06	0.212851D-05

24	0.146957D-05	0.164659D-05	-0.283619D-05	-0.238775D-06	-0.555069D-05
25	0.121006D-06	0.221275D-05	0.875403D-05	0.133094D-05	0.640647D-05
26	0.491376D-06	0.697462D-06	0.451824D-05	-0.204087D-06	0.492695D-05
27	-0.231390D-05	0.497163D-05	0.950174D-05	0.648474D-06	0.395759D-05
28	-0.980001D-06	-0.208240D-05	-0.120259D-05	-0.422010D-06	0.211735D-05
29	-0.125117D-05	-0.867361D-06	0.433953D-05	-0.201193D-06	0.909392D-05
30	-0.150741D-06	0.876819D-06	0.125901D-05	-0.170719D-05	-0.139360D-04
31	-0.991418D-06	0.857481D-06	0.155844D-05	0.637248D-06	0.237210D-05
32	-0.130802D-05	0.507223D-06	0.634047D-05	0.168889D-05	-0.602595D-05
33	-0.129133D-05	-0.375908D-05	-0.331341D-05	-0.112278D-05	-0.591392D-05
34	-0.104948D-04	0.835761D-05	0.954354D-05	-0.571177D-05	0.668381D-05
35	-0.164032D-05	0.307354D-05	0.968449D-05	0.680965D-06	-0.550765D-05
36	-0.104768D-05	0.789143D-05	-0.570095D-05	-0.102154D-04	0.268130D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172651D-03				
7	-0.267706D-04	0.435093D-02			
8	-0.816052D-06	-0.363340D-03	0.190672D-02		
9	0.876696D-06	0.280585D-05	0.117468D-03	0.570704D-03	
10	-0.272509D-05	-0.346885D-04	-0.367678D-03	0.526344D-04	0.245328D-02
11	-0.501756D-05	-0.184825D-04	-0.857482D-04	0.165728D-05	-0.250690D-03
12	0.367564D-05	-0.575855D-04	0.162068D-03	-0.106524D-03	0.125128D-03
13	-0.128985D-05	-0.850019D-05	0.182001D-05	-0.147985D-05	0.120746D-05
14	-0.483625D-06	0.298232D-05	0.106111D-05	-0.130180D-05	0.446962D-05
15	0.555295D-06	-0.161955D-04	-0.181482D-05	0.236153D-05	0.755452D-05
16	0.185751D-05	-0.414143D-04	0.641570D-05	-0.364423D-05	0.981226D-05
17	0.339296D-05	-0.300875D-05	0.730368D-06	0.854323D-06	-0.241508D-05
18	0.392014D-05	-0.194691D-04	-0.215650D-05	0.254706D-05	-0.447811D-04
19	0.811769D-06	0.649709D-06	-0.336588D-05	0.185058D-05	0.791176D-05
20	0.233378D-05	-0.295312D-05	0.235216D-05	0.307025D-05	-0.321269D-05
21	0.419142D-06	-0.152048D-04	-0.594962D-05	0.162949D-05	0.390201D-05
22	-0.487312D-06	0.489066D-05	-0.448602D-06	0.251046D-05	-0.148842D-04
23	-0.233574D-05	-0.892210D-05	0.409839D-05	-0.559059D-05	0.218180D-04
24	-0.167738D-05	-0.735287D-05	0.543845D-05	0.297406D-05	0.100006D-04
25	-0.221902D-05	-0.248892D-04	0.564514D-05	0.315267D-05	0.148005D-04
26	-0.192044D-06	0.661042D-05	-0.237450D-05	0.506489D-05	-0.287612D-05
27	-0.275380D-05	0.178543D-04	0.840805D-06	-0.245911D-06	-0.171858D-04
28	0.295997D-05	0.651200D-05	-0.936108D-05	-0.613211D-05	-0.903571D-05
29	0.227750D-05	0.173785D-04	-0.130143D-04	-0.492524D-05	-0.503084D-06
30	0.105653D-04	-0.107802D-04	0.491983D-06	-0.104970D-05	-0.215605D-04
31	-0.325785D-05	-0.648696D-05	-0.131993D-05	-0.635393D-05	-0.506248D-05

32	-0.288600D-05	-0.440755D-05	-0.132859D-05	-0.387663D-05	0.276910D-04
33	0.799829D-05	-0.835110D-04	0.205114D-04	0.479899D-05	-0.257353D-04
34	-0.498911D-05	-0.403248D-04	0.789420D-04	-0.278915D-04	-0.266123D-04
35	-0.368850D-05	0.366703D-04	-0.668370D-05	-0.165186D-04	-0.764243D-05
36	-0.204771D-04	0.807720D-03	0.139917D-03	-0.161346D-04	-0.443249D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.657528D-03				
12	0.130143D-03	0.780694D-03			
13	0.953352D-06	0.426416D-05	0.209790D-04		
14	0.190622D-05	0.189758D-05	0.447211D-05	0.131009D-04	
15	0.419655D-05	0.165445D-05	0.354083D-06	0.528960D-05	0.319516D-04
16	-0.989254D-05	0.394380D-05	-0.391892D-05	-0.438006D-05	0.581484D-06
17	0.280726D-05	0.743397D-05	-0.347706D-05	-0.414883D-05	-0.100649D-04
18	0.114339D-04	-0.279390D-05	0.256634D-05	0.537306D-06	0.119544D-05
19	0.543058D-05	0.397312D-06	0.955366D-06	0.225400D-05	0.444769D-06
20	0.193709D-05	-0.682453D-06	0.238289D-06	0.746149D-06	0.514701D-05
21	0.309702D-06	0.222002D-05	-0.857877D-06	-0.883217D-06	0.691900D-07
22	0.685737D-06	-0.393414D-05	0.785542D-06	0.380445D-06	0.513127D-06
23	-0.320290D-05	0.710058D-05	0.247607D-05	0.392682D-05	0.326030D-06
24	-0.108588D-05	0.587967D-06	0.165565D-05	0.334532D-05	0.101618D-04
25	-0.922635D-05	0.129023D-04	-0.216408D-05	-0.187471D-05	0.247055D-05
26	0.205111D-05	0.291978D-05	0.811178D-06	-0.414610D-06	0.741157D-06
27	0.902186D-05	0.333808D-05	-0.299300D-06	0.135080D-05	0.209724D-05
28	0.246634D-05	0.299601D-05	-0.316186D-05	-0.404230D-05	-0.563752D-06
29	-0.107060D-04	-0.415060D-05	-0.484086D-07	-0.266992D-05	-0.121446D-04
30	-0.116430D-05	-0.243393D-04	0.272665D-05	0.143077D-05	0.291608D-06
31	-0.442037D-05	-0.860383D-06	-0.656626D-06	-0.230901D-06	-0.132527D-05
32	-0.347881D-05	0.901853D-06	-0.443788D-06	-0.127866D-05	-0.190304D-05
33	0.344199D-05	0.207495D-04	0.171168D-05	0.105738D-05	0.185429D-05
34	-0.258152D-04	0.794354D-05	-0.273196D-05	-0.243336D-05	0.471338D-05
35	0.293807D-05	0.168092D-04	0.253018D-05	-0.105841D-05	0.217316D-05
36	-0.269212D-04	-0.539943D-05	-0.286141D-05	-0.401527D-05	0.404713D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487812D-04				
17	0.116822D-04	0.630603D-04			
18	-0.166512D-04	-0.375807D-04	0.455420D-03		



19	-0.190875D-05	-0.182333D-05	0.263157D-05	0.104682D-04	
20	-0.816988D-06	-0.456207D-05	0.521138D-06	0.301675D-05	0.133089D-04
21	0.305016D-05	0.110303D-04	-0.288190D-04	-0.233172D-05	-0.434910D-05
22	0.847551D-06	-0.337648D-05	-0.199938D-06	0.200391D-05	0.495631D-05
23	-0.285309D-05	0.904163D-07	0.228456D-05	0.498269D-05	0.123830D-05
24	-0.377635D-05	-0.690003D-05	-0.112639D-05	0.977966D-06	0.684286D-05
25	0.869915D-05	0.159916D-04	-0.477169D-04	-0.335144D-05	-0.110156D-05
26	-0.298390D-05	-0.138452D-05	0.431375D-05	0.225513D-05	0.579104D-05
27	-0.610644D-05	-0.438679D-05	0.195003D-04	0.496397D-05	0.711509D-05
28	0.619385D-05	0.382628D-05	-0.404736D-05	-0.351161D-05	-0.126071D-05
29	0.135859D-06	0.123617D-04	-0.327306D-05	-0.154809D-05	-0.501875D-05
30	-0.669841D-05	-0.249392D-04	0.646115D-04	0.185841D-05	0.143457D-05
31	0.943213D-06	0.612623D-05	-0.171889D-05	-0.252541D-05	-0.610789D-05
32	0.551420D-05	0.665423D-05	-0.160188D-04	-0.136896D-05	-0.428407D-05
33	0.443793D-05	-0.113218D-04	0.775522D-05	0.954970D-06	0.261450D-05
34	0.815844D-05	-0.272494D-05	-0.887700D-06	0.779715D-06	0.388697D-05
35	-0.228203D-05	-0.170425D-05	0.142428D-06	0.103134D-05	0.807887D-06
36	-0.705652D-05	0.557026D-05	-0.206663D-04	-0.729335D-06	-0.332383D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478245D-04				
22	-0.602861D-05	0.233621D-04			
23	-0.979202D-06	0.153683D-05	0.461730D-04		
24	-0.347776D-05	0.420562D-05	0.970940D-05	0.591016D-04	
25	0.235105D-04	-0.165834D-05	-0.574382D-05	-0.161991D-04	0.208195D-03
26	-0.462327D-05	0.106542D-04	0.268253D-05	0.129417D-04	-0.794199D-05
27	-0.507383D-05	0.100908D-04	0.146298D-04	0.375309D-04	-0.198645D-04
28	0.673783D-06	-0.177985D-05	-0.912121D-05	-0.160050D-05	-0.803898D-07
29	0.282317D-05	-0.238624D-05	-0.316853D-05	-0.137644D-04	0.414743D-05
30	-0.175173D-04	0.318743D-05	0.297591D-07	0.617876D-05	-0.443939D-04
31	0.825033D-05	-0.792292D-05	-0.265103D-05	-0.586495D-05	0.506065D-05
32	0.435313D-05	-0.447421D-05	-0.583395D-05	-0.203136D-04	0.221329D-04
33	-0.700752D-05	0.537383D-05	0.213832D-05	0.613993D-05	-0.109154D-04
34	-0.632892D-05	-0.270328D-05	-0.525799D-05	0.905645D-05	0.401283D-05
35	0.217176D-05	0.802749D-06	-0.153086D-05	0.359102D-05	0.768788D-05
36	0.441459D-05	0.114792D-05	-0.510174D-05	0.105612D-04	0.269342D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475439D-04				
27	0.414772D-04	0.387703D-03			
28	-0.858362D-06	-0.484398D-05	0.375054D-04		
29	-0.194187D-05	-0.877643D-05	0.797047D-05	0.516358D-04	
30	0.462519D-05	0.262702D-04	-0.700229D-05	-0.186062D-04	0.191135D-03
31	-0.957231D-05	-0.967499D-05	0.279883D-05	0.130443D-04	-0.110198D-04
32	-0.152162D-04	-0.649073D-04	0.420913D-05	0.198484D-04	-0.194306D-04
33	0.632306D-05	0.118209D-04	-0.747119D-05	-0.373197D-04	0.567696D-04
34	0.749924D-05	-0.170576D-04	0.514755D-05	0.446875D-05	-0.136643D-04
35	0.235511D-05	0.509361D-05	-0.854113D-06	-0.259917D-05	0.311588D-05
36	0.963586D-05	0.800519D-05	-0.487107D-05	0.318877D-05	-0.105686D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422952D-04				
32	0.239122D-04	0.160896D-03			
33	-0.287866D-04	-0.530664D-04	0.285436D-03		
34	0.276439D-05	-0.677898D-05	-0.399293D-04	0.132905D-02	
35	-0.501414D-05	0.364338D-05	-0.579190D-05	-0.557176D-04	0.197124D-03
36	-0.179439D-05	-0.215998D-05	-0.324272D-04	0.478715D-03	0.646012D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.144696D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.003	-0.033	-0.038	0.018
8	0.023	0.015	-0.003	0.052	0.041
9	-0.034	-0.013	0.017	-0.005	-0.048
10	0.024	0.003	-0.045	-0.016	-0.026
11	-0.027	0.030	-0.058	0.017	0.032

12	0.009	-0.011	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.040	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.028	0.028	-0.025	-0.005	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.018	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.043	0.029	0.018	-0.023	0.013
35	-0.017	0.028	0.047	0.007	-0.028
36	-0.004	0.027	-0.010	-0.039	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.031	1.000			
8	-0.001	-0.126	1.000		
9	0.003	0.002	0.113	1.000	
10	-0.004	-0.011	-0.170	0.044	1.000
11	-0.015	-0.011	-0.077	0.003	-0.197
12	0.010	-0.031	0.133	-0.160	0.090
13	-0.021	-0.028	0.009	-0.014	0.005
14	-0.010	0.012	0.007	-0.015	0.025
15	0.007	-0.043	-0.007	0.017	0.027
16	0.020	-0.090	0.021	-0.022	0.028
17	0.033	-0.006	0.002	0.005	-0.006
18	0.014	-0.014	-0.002	0.005	-0.042
19	0.019	0.003	-0.024	0.024	0.049

20	0.049	-0.012	0.015	0.035	-0.018
21	0.005	-0.033	-0.020	0.010	0.011
22	-0.008	0.015	-0.002	0.022	-0.062
23	-0.026	-0.020	0.014	-0.034	0.065
24	-0.017	-0.014	0.016	0.016	0.026
25	-0.012	-0.026	0.009	0.009	0.021
26	-0.002	0.015	-0.008	0.031	-0.008
27	-0.011	0.014	0.001	-0.001	-0.018
28	0.037	0.016	-0.035	-0.042	-0.030
29	0.024	0.037	-0.041	-0.029	-0.001
30	0.058	-0.012	0.001	-0.003	-0.031
31	-0.038	-0.015	-0.005	-0.041	-0.016
32	-0.017	-0.005	-0.002	-0.013	0.044
33	0.036	-0.075	0.028	0.012	-0.031
34	-0.010	-0.017	0.050	-0.032	-0.015
35	-0.020	0.040	-0.011	-0.049	-0.011
36	-0.041	0.322	0.084	-0.018	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.182	1.000			
13	0.008	0.033	1.000		
14	0.021	0.019	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.055	0.020	-0.123	-0.173	0.015
17	0.014	0.034	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.065	0.004	0.064	0.192	0.024
20	0.021	-0.007	0.014	0.057	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.006	-0.029	0.035	0.022	0.019
23	-0.018	0.037	0.080	0.160	0.008
24	-0.006	0.003	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.018	0.006	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.058	-0.021	-0.001	-0.103	-0.299
30	-0.003	-0.063	0.043	0.029	0.004
31	-0.027	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.003	-0.008	-0.028	-0.027

33	0.008	0.044	0.022	0.017	0.019
34	-0.028	0.008	-0.016	-0.018	0.023
35	0.008	0.043	0.039	-0.021	0.027
36	-0.028	-0.005	-0.016	-0.029	0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.157	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.017	0.042
34	0.032	-0.009	-0.001	0.007	0.029
35	-0.023	-0.015	0.000	0.023	0.016
36	-0.027	0.018	-0.025	-0.006	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.025	-0.015	-0.021	0.032	0.008
35	0.022	0.012	-0.016	0.033	0.038
36	0.017	0.006	-0.020	0.036	0.049

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.030	-0.024	0.023	0.017	-0.027
35	0.024	0.018	-0.010	-0.026	0.016
36	0.037	0.011	-0.021	0.012	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.012	-0.015	-0.065	1.000	
35	-0.055	0.020	-0.024	-0.109	1.000
36	-0.007	-0.004	-0.050	0.345	0.121

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.012	35
200	1.009	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.004	35
700	1.006	35
800	1.003	35
900	1.001	35
1000	1.000	1

ALC - single practice, drinking support

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142



131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-17.506                      21.623

Posterior Predictive P-Value                      0.458

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.970	0.066	0.000	0.844	1.106	*
CHOICE15	-0.073	0.024	0.002	-0.119	-0.027	*
BULLY15	0.030	0.050	0.283	-0.070	0.126	
DUTIES15	-0.032	0.028	0.130	-0.083	0.024	
PRESS15	-0.032	0.026	0.112	-0.083	0.018	
KES15	0.226	0.044	0.000	0.144	0.314	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.436	-0.014	0.017
CHOICE15	-0.002	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.027	0.033	0.193	-0.093	0.037
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Thresholds

PHYCAT16\$1	1.333	0.037	0.000	1.261	1.408	*
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Residual Variances

PHYCAT16	0.019	0.014	0.000	0.002	0.059	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.067	0.022	0.002	-0.109	-0.025	*

BULLY15	0.013	0.021	0.283	-0.031	0.054	
DUTIES15	-0.026	0.023	0.130	-0.069	0.020	
PRESS15	-0.028	0.023	0.112	-0.073	0.016	
KES15	0.108	0.021	0.000	0.068	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.436	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.213	0.239	0.193	-0.656	0.285	
Thresholds PHYCAT16\$1	9.253	4.678	0.000	5.438	23.536	*
Residual Variances PHYCAT16	0.944	0.120	0.000	0.558	1.000	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.056	0.120	0.000	0.000	0.442

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
----------	---	---	---	---	---

THETA

	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA

PRESS15	DUTIES15
<u>5</u>	<u>6</u>

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0



	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<hr/> 27	<hr/>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<hr/> 36

NU	
PHYCAT16	SINGLE
<hr/> 0	<hr/> 0

	LAMBDA	
	PHYCAT16	SINGLE
PHYCAT16	<hr/> 0	<hr/> 0
SINGLE	0	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000      0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.657

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450562D-04				
2	0.998821D-05	0.604992D-04			
3	-0.751989D-05	-0.221246D-04	0.213888D-03		
4	0.337127D-05	0.123672D-04	-0.913023D-05	0.473269D-04	
5	0.114711D-04	0.198165D-04	-0.196321D-04	0.220987D-04	0.197376D-03
6	-0.555222D-05	-0.214181D-04	0.418942D-04	-0.152094D-04	-0.365455D-04
7	-0.299513D-05	0.158802D-05	-0.305786D-04	-0.175832D-04	0.164448D-04
8	0.699000D-05	0.474380D-05	-0.239492D-05	0.154606D-04	0.251902D-04
9	-0.577500D-05	-0.210172D-05	0.617239D-05	-0.811449D-06	-0.161840D-04
10	0.770665D-05	0.134525D-05	-0.321564D-04	-0.529219D-05	-0.182286D-04
11	-0.457546D-05	0.597674D-05	-0.213545D-04	0.289269D-05	0.117133D-04
12	0.152487D-05	-0.236084D-05	-0.111139D-04	0.130734D-05	0.169098D-04
13	0.224929D-07	0.965303D-06	-0.187353D-05	-0.688193D-06	-0.189382D-05
14	0.981910D-06	0.714463D-06	-0.305851D-05	-0.125457D-05	0.380403D-06
15	0.343621D-06	0.145155D-06	-0.301729D-05	0.343278D-06	-0.587542D-06
16	-0.661026D-06	-0.107545D-05	-0.118673D-05	0.613614D-06	-0.267254D-05
17	-0.475320D-06	-0.207610D-05	0.448890D-05	0.339709D-05	0.677271D-05
18	-0.433417D-05	-0.469483D-05	0.464069D-05	-0.748776D-05	-0.277766D-05
19	0.100680D-05	0.723018D-06	-0.135728D-05	0.185396D-06	-0.825513D-06
20	0.283471D-06	-0.268627D-06	-0.426432D-06	-0.380647D-06	-0.160437D-05
21	-0.936850D-06	-0.460996D-07	0.427997D-06	0.299938D-05	0.478957D-05
22	0.154028D-06	0.193291D-05	0.430248D-06	-0.814141D-06	0.189350D-05
23	0.990316D-06	0.784943D-06	0.126720D-05	-0.121850D-06	0.212793D-05

24	0.146965D-05	0.164566D-05	-0.282675D-05	-0.237407D-06	-0.555376D-05
25	0.115426D-06	0.220886D-05	0.875005D-05	0.132778D-05	0.639417D-05
26	0.494059D-06	0.696679D-06	0.452056D-05	-0.203332D-06	0.492435D-05
27	-0.231549D-05	0.497404D-05	0.950367D-05	0.649099D-06	0.396485D-05
28	-0.976078D-06	-0.208066D-05	-0.120377D-05	-0.425429D-06	0.212245D-05
29	-0.124665D-05	-0.863079D-06	0.433130D-05	-0.201260D-06	0.909977D-05
30	-0.161463D-06	0.868188D-06	0.127148D-05	-0.170535D-05	-0.139391D-04
31	-0.991329D-06	0.859889D-06	0.155526D-05	0.635737D-06	0.237494D-05
32	-0.131251D-05	0.504111D-06	0.634084D-05	0.168536D-05	-0.602821D-05
33	-0.130344D-05	-0.376875D-05	-0.330567D-05	-0.112339D-05	-0.592740D-05
34	-0.573125D-05	-0.568858D-05	0.275827D-05	-0.106609D-04	-0.109402D-04
35	-0.115683D-05	0.299072D-05	0.825715D-05	0.107104D-05	-0.614780D-05
36	0.159949D-05	0.547342D-05	-0.991751D-05	-0.880667D-05	0.221135D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172648D-03				
7	-0.257805D-04	0.435083D-02			
8	-0.618953D-06	-0.369340D-03	0.190683D-02		
9	0.602860D-06	0.213368D-05	0.119701D-03	0.570766D-03	
10	-0.312567D-05	-0.338403D-04	-0.364851D-03	0.504333D-04	0.245099D-02
11	-0.453607D-05	-0.185309D-04	-0.897783D-04	0.581709D-06	-0.250772D-03
12	0.380888D-05	-0.604220D-04	0.162391D-03	-0.105824D-03	0.124465D-03
13	-0.128984D-05	-0.829611D-05	0.163597D-05	-0.130607D-05	0.127306D-05
14	-0.479872D-06	0.316962D-05	0.114187D-05	-0.145843D-05	0.442582D-05
15	0.559116D-06	-0.163218D-04	-0.189334D-05	0.240366D-05	0.759580D-05
16	0.186803D-05	-0.427830D-04	0.598595D-05	-0.318639D-05	0.992679D-05
17	0.340003D-05	-0.409889D-05	0.633297D-06	0.114786D-05	-0.252905D-05
18	0.390717D-05	-0.202981D-04	-0.177577D-05	0.223017D-05	-0.449615D-04
19	0.811306D-06	0.552352D-06	-0.337438D-05	0.183327D-05	0.795465D-05
20	0.233418D-05	-0.330822D-05	0.225957D-05	0.320811D-05	-0.309155D-05
21	0.420987D-06	-0.150823D-04	-0.595769D-05	0.160573D-05	0.381992D-05
22	-0.488526D-06	0.504542D-05	-0.569346D-06	0.253812D-05	-0.148901D-04
23	-0.233681D-05	-0.842401D-05	0.404550D-05	-0.567207D-05	0.217134D-04
24	-0.167506D-05	-0.732851D-05	0.517632D-05	0.330985D-05	0.102131D-04
25	-0.221891D-05	-0.256267D-04	0.557824D-05	0.310525D-05	0.148336D-04
26	-0.191025D-06	0.638942D-05	-0.266816D-05	0.524210D-05	-0.282261D-05
27	-0.275866D-05	0.175737D-04	0.693668D-06	-0.504647D-06	-0.176045D-04
28	0.296634D-05	0.617386D-05	-0.952848D-05	-0.588843D-05	-0.888417D-05
29	0.227871D-05	0.174919D-04	-0.129861D-04	-0.496939D-05	-0.410288D-06
30	0.105574D-04	-0.106732D-04	0.733459D-06	-0.134510D-05	-0.219071D-04
31	-0.325917D-05	-0.598717D-05	-0.969123D-06	-0.650307D-05	-0.513665D-05



32	-0.288449D-05	-0.386411D-05	-0.802655D-06	-0.395251D-05	0.276008D-04
33	0.799330D-05	-0.846365D-04	0.210015D-04	0.427941D-05	-0.263366D-04
34	-0.184863D-05	-0.764621D-04	0.966198D-04	0.352872D-04	0.197366D-04
35	-0.318494D-05	0.335109D-04	-0.146095D-04	-0.106467D-04	-0.506821D-05
36	-0.206384D-04	0.810301D-03	0.128486D-03	0.673906D-05	-0.395231D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.659437D-03				
12	0.129718D-03	0.781364D-03			
13	0.104709D-05	0.434933D-05	0.209784D-04		
14	0.196675D-05	0.186240D-05	0.447327D-05	0.131019D-04	
15	0.415756D-05	0.159561D-05	0.353822D-06	0.529022D-05	0.319530D-04
16	-0.100451D-04	0.397158D-05	-0.391789D-05	-0.438491D-05	0.580675D-06
17	0.275435D-05	0.752220D-05	-0.347976D-05	-0.415139D-05	-0.100672D-04
18	0.115901D-04	-0.283741D-05	0.255788D-05	0.533332D-06	0.119419D-05
19	0.546007D-05	0.408391D-06	0.954720D-06	0.225505D-05	0.445554D-06
20	0.192746D-05	-0.676785D-06	0.236931D-06	0.746015D-06	0.514821D-05
21	0.266659D-06	0.219857D-05	-0.855436D-06	-0.882835D-06	0.689013D-07
22	0.762388D-06	-0.397963D-05	0.785671D-06	0.380799D-06	0.513600D-06
23	-0.307165D-05	0.696266D-05	0.247366D-05	0.392686D-05	0.327846D-06
24	-0.134247D-05	0.472156D-06	0.165085D-05	0.334295D-05	0.101634D-04
25	-0.921114D-05	0.129830D-04	-0.215961D-05	-0.187132D-05	0.247134D-05
26	0.195086D-05	0.296469D-05	0.806624D-06	-0.416006D-06	0.740631D-06
27	0.917848D-05	0.307771D-05	-0.300269D-06	0.135252D-05	0.209810D-05
28	0.248570D-05	0.308592D-05	-0.316279D-05	-0.404457D-05	-0.566328D-06
29	-0.106528D-04	-0.408097D-05	-0.470434D-07	-0.266985D-05	-0.121466D-04
30	-0.131431D-05	-0.243501D-04	0.273222D-05	0.143545D-05	0.297839D-06
31	-0.450806D-05	-0.911209D-06	-0.655799D-06	-0.231171D-06	-0.132629D-05
32	-0.370728D-05	0.880732D-06	-0.447877D-06	-0.128142D-05	-0.190637D-05
33	0.316519D-05	0.206706D-04	0.170727D-05	0.105474D-05	0.185361D-05
34	-0.401845D-04	0.150328D-04	-0.339062D-05	-0.186174D-05	0.638240D-05
35	0.485478D-05	0.180533D-04	0.272917D-05	-0.739757D-06	0.196129D-05
36	-0.302467D-04	-0.759691D-05	-0.209843D-05	-0.407571D-05	0.297586D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487990D-04				
17	0.116913D-04	0.630629D-04			
18	-0.166831D-04	-0.375930D-04	0.455511D-03		

19	-0.190842D-05	-0.182613D-05	0.263116D-05	0.104692D-04	
20	-0.814322D-06	-0.456305D-05	0.520523D-06	0.301720D-05	0.133087D-04
21	0.305001D-05	0.110309D-04	-0.288242D-04	-0.233591D-05	-0.434985D-05
22	0.846897D-06	-0.337731D-05	-0.202219D-06	0.200393D-05	0.495599D-05
23	-0.285688D-05	0.896606D-07	0.228966D-05	0.498485D-05	0.123744D-05
24	-0.377866D-05	-0.690062D-05	-0.112243D-05	0.980332D-06	0.684383D-05
25	0.869787D-05	0.159842D-04	-0.477243D-04	-0.335429D-05	-0.110049D-05
26	-0.298030D-05	-0.138471D-05	0.431713D-05	0.225650D-05	0.579163D-05
27	-0.611572D-05	-0.438804D-05	0.195143D-04	0.496805D-05	0.711829D-05
28	0.619468D-05	0.382777D-05	-0.405393D-05	-0.351328D-05	-0.126055D-05
29	0.134528D-06	0.123615D-04	-0.327560D-05	-0.154964D-05	-0.502048D-05
30	-0.670413D-05	-0.249407D-04	0.646289D-04	0.186272D-05	0.143733D-05
31	0.942811D-06	0.612839D-05	-0.172206D-05	-0.252659D-05	-0.610801D-05
32	0.552359D-05	0.665875D-05	-0.160327D-04	-0.137147D-05	-0.428338D-05
33	0.444226D-05	-0.113151D-04	0.774437D-05	0.956903D-06	0.261483D-05
34	0.120283D-04	0.140129D-07	-0.126366D-04	-0.640380D-06	0.143981D-05
35	-0.249788D-05	-0.141064D-05	-0.139089D-05	0.993931D-06	0.571421D-06
36	-0.804436D-05	0.656425D-05	-0.239928D-04	-0.107986D-05	-0.452690D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478265D-04				
22	-0.602785D-05	0.233630D-04			
23	-0.981922D-06	0.154000D-05	0.461763D-04		
24	-0.348078D-05	0.420720D-05	0.970724D-05	0.590983D-04	
25	0.235125D-04	-0.165859D-05	-0.575219D-05	-0.162004D-04	0.208197D-03
26	-0.462374D-05	0.106548D-04	0.268311D-05	0.129417D-04	-0.794114D-05
27	-0.507694D-05	0.100950D-04	0.146295D-04	0.375292D-04	-0.198689D-04
28	0.669287D-06	-0.177905D-05	-0.912754D-05	-0.160107D-05	-0.787088D-07
29	0.282174D-05	-0.238638D-05	-0.317099D-05	-0.137662D-04	0.414842D-05
30	-0.175150D-04	0.318578D-05	0.346985D-07	0.618344D-05	-0.443890D-04
31	0.825041D-05	-0.792274D-05	-0.265500D-05	-0.586817D-05	0.506242D-05
32	0.435268D-05	-0.447500D-05	-0.584339D-05	-0.203149D-04	0.221385D-04
33	-0.700074D-05	0.537273D-05	0.214541D-05	0.614375D-05	-0.109127D-04
34	-0.272199D-05	-0.404142D-05	-0.722269D-05	0.717140D-05	0.118713D-04
35	0.222523D-05	0.836122D-06	-0.138791D-05	0.292945D-05	0.872444D-05
36	0.626661D-05	0.175191D-05	-0.424931D-05	0.977802D-05	0.266363D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475445D-04					
27	0.414755D-04	0.387696D-03				
28	-0.854936D-06	-0.484496D-05	0.375083D-04			
29	-0.194097D-05	-0.877515D-05	0.796992D-05	0.516343D-04		
30	0.462396D-05	0.262654D-04	-0.700334D-05	-0.186031D-04	0.191132D-03	
31	-0.957259D-05	-0.967803D-05	0.280012D-05	0.130461D-04	-0.110213D-04	
32	-0.152149D-04	-0.649095D-04	0.421339D-05	0.198494D-04	-0.194304D-04	
33	0.632065D-05	0.118172D-04	-0.747035D-05	-0.373127D-04	0.567510D-04	
34	0.413640D-05	-0.625885D-05	-0.109590D-05	-0.445204D-05	-0.146314D-05	
35	0.213771D-05	0.482501D-05	-0.142224D-05	-0.317210D-05	0.294360D-05	
36	0.823204D-05	0.117232D-04	-0.661069D-05	0.825361D-06	-0.693220D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422950D-04				
32	0.239127D-04	0.160901D-03			
33	-0.287867D-04	-0.530628D-04	0.285418D-03		
34	0.395909D-05	0.943289D-06	-0.198689D-04	0.105922D-02	
35	-0.512598D-05	0.429011D-05	-0.626903D-05	-0.383751D-04	0.207919D-03
36	-0.206482D-05	0.195632D-05	-0.228675D-04	0.268493D-03	0.910755D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.137753D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.194	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.003	-0.032	-0.039	0.018
8	0.024	0.014	-0.004	0.051	0.041
9	-0.036	-0.011	0.018	-0.005	-0.048
10	0.023	0.003	-0.044	-0.016	-0.026
11	-0.027	0.030	-0.057	0.016	0.032

12	0.008	-0.011	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.029
14	0.040	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.036	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.028	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.018	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.015	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.026	-0.022	0.006	-0.048	-0.024
35	-0.012	0.027	0.039	0.011	-0.030
36	0.006	0.019	-0.018	-0.034	0.042

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.030	1.000			
8	-0.001	-0.128	1.000		
9	0.002	0.001	0.115	1.000	
10	-0.005	-0.010	-0.169	0.043	1.000
11	-0.013	-0.011	-0.080	0.001	-0.197
12	0.010	-0.033	0.133	-0.158	0.090
13	-0.021	-0.027	0.008	-0.012	0.006
14	-0.010	0.013	0.007	-0.017	0.025
15	0.008	-0.044	-0.008	0.018	0.027
16	0.020	-0.093	0.020	-0.019	0.029
17	0.033	-0.008	0.002	0.006	-0.006
18	0.014	-0.014	-0.002	0.004	-0.043
19	0.019	0.003	-0.024	0.024	0.050

20	0.049	-0.014	0.014	0.037	-0.017
21	0.005	-0.033	-0.020	0.010	0.011
22	-0.008	0.016	-0.003	0.022	-0.062
23	-0.026	-0.019	0.014	-0.035	0.065
24	-0.017	-0.014	0.015	0.018	0.027
25	-0.012	-0.027	0.009	0.009	0.021
26	-0.002	0.014	-0.009	0.032	-0.008
27	-0.011	0.014	0.001	-0.001	-0.018
28	0.037	0.015	-0.036	-0.040	-0.029
29	0.024	0.037	-0.041	-0.029	-0.001
30	0.058	-0.012	0.001	-0.004	-0.032
31	-0.038	-0.014	-0.003	-0.042	-0.016
32	-0.017	-0.005	-0.001	-0.013	0.044
33	0.036	-0.076	0.028	0.011	-0.031
34	-0.004	-0.036	0.068	0.045	0.012
35	-0.017	0.035	-0.023	-0.031	-0.007
36	-0.042	0.331	0.079	0.008	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.009	0.034	1.000		
14	0.021	0.018	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.056	0.020	-0.122	-0.173	0.015
17	0.014	0.034	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.066	0.005	0.064	0.193	0.024
20	0.021	-0.007	0.014	0.056	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.006	-0.029	0.035	0.022	0.019
23	-0.018	0.037	0.079	0.160	0.009
24	-0.007	0.002	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.011	0.015	0.026	-0.017	0.019
27	0.018	0.006	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.058	-0.020	-0.001	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.027	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027

33	0.007	0.044	0.022	0.017	0.019
34	-0.048	0.017	-0.023	-0.016	0.035
35	0.013	0.045	0.041	-0.014	0.024
36	-0.032	-0.007	-0.012	-0.030	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.139	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.192
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.021	0.018	0.042
34	0.053	0.000	-0.018	-0.006	0.012
35	-0.025	-0.012	-0.005	0.021	0.011
36	-0.031	0.022	-0.030	-0.009	-0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.012	-0.026	-0.033	0.029	0.025
35	0.022	0.012	-0.014	0.026	0.042
36	0.024	0.010	-0.017	0.034	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.305	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.096	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.018	-0.010	-0.005	-0.019	-0.003
35	0.022	0.017	-0.016	-0.031	0.015
36	0.032	0.016	-0.029	0.003	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.019	0.002	-0.036	1.000	
35	-0.055	0.023	-0.026	-0.082	1.000
36	-0.009	0.004	-0.036	0.222	0.170

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36	1.000
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TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	10
200	1.014	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.004	35
700	1.005	35
800	1.002	35
900	1.001	35
1000	1.000	1



PHY - single practice, physical health

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

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PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

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# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-16.933                      21.977

Posterior Predictive P-Value                      0.464

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.965	0.066	0.000	0.838	1.101	*
CHOICE15	-0.072	0.024	0.002	-0.117	-0.025	*
BULLY15	0.032	0.050	0.259	-0.069	0.129	
DUTIES15	-0.032	0.028	0.130	-0.083	0.023	
PRESS15	-0.037	0.026	0.081	-0.088	0.014	
KES15	0.226	0.044	0.000	0.143	0.315	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.011	0.016
KES15	0.001	0.008	0.434	-0.014	0.017
CHOICE15	-0.001	0.015	0.455	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.491	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.110	0.035	0.001	-0.176	-0.041	*
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Thresholds

PHYCAT16\$1	1.311	0.033	0.000	1.245	1.379	*
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Residual Variances

PHYCAT16	0.008	0.010	0.000	0.000	0.038	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.413	0.024	0.000	0.368	0.459	*
CHOICE15	-0.066	0.022	0.002	-0.107	-0.023	*

BULLY15	0.014	0.021	0.259	-0.030	0.055	
DUTIES15	-0.027	0.023	0.130	-0.069	0.020	
PRESS15	-0.033	0.023	0.081	-0.078	0.012	
KES15	0.107	0.021	0.000	0.069	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.194	0.243	*
PRESS15	0.185	0.014	0.000	0.157	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.434	-0.025	0.031	
CHOICE15	-0.001	0.014	0.455	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.491	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.779	0.183	0.001	-0.987	-0.321	*
Thresholds PHYCAT16\$1	8.848	3.051	0.000	5.529	15.828	*
Residual Variances PHYCAT16	0.394	0.247	0.000	0.025	0.897	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.215	0.020	0.000	0.177	0.258

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.606	0.247	0.000	0.103	0.975

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
— 0 —

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0



DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>          </u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>          </u>
36

NU	
PHYCAT16	SINGLE
<u>          </u>	<u>          </u>
0	0

	LAMBDA	
	PHYCAT16	SINGLE
PHYCAT16	<u>          </u>	<u>          </u>
SINGLE	0	0
	0	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA			
	PRESS15	DUTIES15	
PHYCAT16	<u>0.000</u>	<u>0.000</u>	
PHY15	0.000	0.000	
KES15	0.000	0.000	
CHOICE15	0.000	0.000	
BULLY15	0.000	0.000	
PRESS15	1.000	0.000	
DUTIES15	0.000	1.000	

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA			
	PRESS15	DUTIES15	
PRESS15	<u>0.000</u>	<u>0.000</u>	
DUTIES15	0.000	0.000	

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.338

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450351D-04				
2	0.997920D-05	0.604939D-04			
3	-0.753180D-05	-0.221309D-04	0.213901D-03		
4	0.337012D-05	0.123628D-04	-0.913442D-05	0.473230D-04	
5	0.114564D-04	0.198065D-04	-0.196081D-04	0.221011D-04	0.197381D-03
6	-0.552543D-05	-0.214078D-04	0.418900D-04	-0.152080D-04	-0.365521D-04
7	-0.376855D-05	0.111117D-05	-0.279257D-04	-0.155585D-04	0.158008D-04
8	0.695619D-05	0.492630D-05	-0.279151D-05	0.157324D-04	0.258517D-04
9	-0.570451D-05	-0.195746D-05	0.541239D-05	-0.578403D-06	-0.159304D-04
10	0.766041D-05	0.122850D-05	-0.327903D-04	-0.540680D-05	-0.186508D-04
11	-0.445300D-05	0.587076D-05	-0.209392D-04	0.286493D-05	0.117821D-04
12	0.161995D-05	-0.247538D-05	-0.106025D-04	0.106180D-05	0.172891D-04
13	0.233935D-07	0.963271D-06	-0.186253D-05	-0.686526D-06	-0.190553D-05
14	0.993662D-06	0.723038D-06	-0.306009D-05	-0.125173D-05	0.384745D-06
15	0.360412D-06	0.164377D-06	-0.303596D-05	0.351469D-06	-0.572013D-06
16	-0.653830D-06	-0.107666D-05	-0.120178D-05	0.611019D-06	-0.268899D-05
17	-0.471159D-06	-0.208111D-05	0.448568D-05	0.339470D-05	0.676410D-05
18	-0.432919D-05	-0.469300D-05	0.463061D-05	-0.748296D-05	-0.276914D-05
19	0.101331D-05	0.724342D-06	-0.135893D-05	0.184844D-06	-0.825819D-06
20	0.288764D-06	-0.264606D-06	-0.429700D-06	-0.379381D-06	-0.160100D-05
21	-0.929039D-06	-0.402710D-07	0.414056D-06	0.300190D-05	0.478479D-05
22	0.155612D-06	0.193297D-05	0.429195D-06	-0.813987D-06	0.189462D-05
23	0.990682D-06	0.783727D-06	0.126883D-05	-0.127114D-06	0.211580D-05



24	0.148151D-05	0.165216D-05	-0.284148D-05	-0.237925D-06	-0.554124D-05
25	0.125187D-06	0.221530D-05	0.874195D-05	0.132756D-05	0.641527D-05
26	0.504047D-06	0.701105D-06	0.451537D-05	-0.204634D-06	0.493886D-05
27	-0.227582D-05	0.496517D-05	0.947009D-05	0.645877D-06	0.388947D-05
28	-0.986574D-06	-0.209077D-05	-0.118215D-05	-0.430273D-06	0.212085D-05
29	-0.124734D-05	-0.873960D-06	0.434546D-05	-0.203231D-06	0.909052D-05
30	-0.136576D-06	0.893956D-06	0.123988D-05	-0.169950D-05	-0.139345D-04
31	-0.992409D-06	0.856669D-06	0.155782D-05	0.635459D-06	0.236734D-05
32	-0.131946D-05	0.500746D-06	0.635080D-05	0.168656D-05	-0.603540D-05
33	-0.126656D-05	-0.373089D-05	-0.334010D-05	-0.111505D-05	-0.591404D-05
34	-0.820371D-05	-0.305804D-06	0.116325D-04	-0.537824D-05	0.149102D-05
35	-0.682309D-06	0.718824D-06	0.626493D-05	0.392671D-06	-0.282811D-05
36	-0.150232D-05	0.251233D-05	-0.362252D-05	-0.740724D-05	0.221249D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172632D-03				
7	-0.216061D-04	0.436924D-02			
8	-0.123925D-05	-0.357692D-03	0.189964D-02		
9	0.100731D-06	0.102313D-04	0.119789D-03	0.567332D-03	
10	-0.211514D-05	-0.250716D-04	-0.362785D-03	0.514040D-04	0.245076D-02
11	-0.545417D-05	-0.132471D-04	-0.849001D-04	0.215726D-05	-0.252093D-03
12	0.331507D-05	-0.453990D-04	0.159679D-03	-0.108654D-03	0.126450D-03
13	-0.127989D-05	-0.718921D-05	0.168142D-05	-0.144198D-05	0.108734D-05
14	-0.490210D-06	0.261310D-05	0.102275D-05	-0.137284D-05	0.446611D-05
15	0.542928D-06	-0.176835D-04	-0.201845D-05	0.239295D-05	0.747714D-05
16	0.186016D-05	-0.383708D-04	0.670159D-05	-0.382002D-05	0.932110D-05
17	0.339964D-05	-0.194353D-05	0.933069D-06	0.680536D-06	-0.183884D-05
18	0.389788D-05	-0.115396D-04	-0.155159D-05	0.201287D-05	-0.448304D-04
19	0.818937D-06	0.868520D-06	-0.346168D-05	0.183490D-05	0.784246D-05
20	0.233410D-05	-0.267410D-05	0.212407D-05	0.305905D-05	-0.322672D-05
21	0.415304D-06	-0.155025D-04	-0.575034D-05	0.153740D-05	0.399808D-05
22	-0.487327D-06	0.414860D-05	-0.520304D-06	0.250440D-05	-0.151993D-04
23	-0.232790D-05	-0.706512D-05	0.449306D-05	-0.574106D-05	0.220024D-04
24	-0.168555D-05	-0.636430D-05	0.524395D-05	0.335050D-05	0.994032D-05
25	-0.221339D-05	-0.210675D-04	0.579250D-05	0.235311D-05	0.140018D-04
26	-0.200841D-06	0.614783D-05	-0.239371D-05	0.506660D-05	-0.311260D-05
27	-0.277063D-05	0.205810D-04	0.169166D-05	-0.711239D-06	-0.167503D-04
28	0.296808D-05	0.671473D-05	-0.930777D-05	-0.607193D-05	-0.917976D-05
29	0.228177D-05	0.202885D-04	-0.127233D-04	-0.478011D-05	-0.184801D-06
30	0.105457D-04	-0.164381D-04	0.421821D-06	-0.973407D-06	-0.217059D-04
31	-0.325804D-05	-0.628419D-05	-0.146210D-05	-0.599650D-05	-0.471192D-05

32	-0.287948D-05	-0.500829D-05	-0.132446D-05	-0.375740D-05	0.274763D-04
33	0.798116D-05	-0.794616D-04	0.229043D-04	0.413812D-05	-0.261218D-04
34	-0.261095D-05	-0.777122D-05	0.257635D-04	-0.464094D-05	-0.240606D-04
35	-0.407676D-05	0.324936D-04	-0.687578D-06	-0.101884D-04	-0.132723D-04
36	-0.164402D-04	0.841619D-03	0.105726D-03	-0.183757D-04	-0.428085D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.656665D-03				
12	0.130321D-03	0.779547D-03			
13	0.107719D-05	0.424564D-05	0.209788D-04		
14	0.173112D-05	0.195426D-05	0.446791D-05	0.131008D-04	
15	0.415510D-05	0.165225D-05	0.351515D-06	0.529084D-05	0.319558D-04
16	-0.967727D-05	0.416678D-05	-0.390775D-05	-0.437699D-05	0.585878D-06
17	0.306236D-05	0.736407D-05	-0.347833D-05	-0.415055D-05	-0.100651D-04
18	0.108521D-04	-0.299614D-05	0.257959D-05	0.546649D-06	0.118838D-05
19	0.540584D-05	0.465901D-06	0.952266D-06	0.225351D-05	0.445306D-06
20	0.214870D-05	-0.664835D-06	0.236299D-06	0.744521D-06	0.514648D-05
21	0.464866D-06	0.215030D-05	-0.854374D-06	-0.882755D-06	0.731394D-07
22	0.683123D-06	-0.381496D-05	0.784683D-06	0.381418D-06	0.514103D-06
23	-0.361427D-05	0.690153D-05	0.247109D-05	0.392615D-05	0.330706D-06
24	-0.106169D-05	0.479411D-06	0.164806D-05	0.334257D-05	0.101637D-04
25	-0.812722D-05	0.129136D-04	-0.214614D-05	-0.187375D-05	0.246864D-05
26	0.239701D-05	0.308973D-05	0.807659D-06	-0.416803D-06	0.739183D-06
27	0.799456D-05	0.367300D-05	-0.298576D-06	0.135810D-05	0.209600D-05
28	0.286470D-05	0.328020D-05	-0.316031D-05	-0.403708D-05	-0.557773D-06
29	-0.105675D-04	-0.433840D-05	-0.428981D-07	-0.266835D-05	-0.121452D-04
30	-0.167007D-05	-0.246035D-04	0.272019D-05	0.142725D-05	0.288490D-06
31	-0.449853D-05	-0.107775D-05	-0.651778D-06	-0.230618D-06	-0.132289D-05
32	-0.355870D-05	0.533862D-06	-0.448724D-06	-0.128241D-05	-0.190438D-05
33	0.280779D-05	0.210585D-04	0.170180D-05	0.106266D-05	0.186360D-05
34	0.321871D-04	0.292764D-04	-0.278879D-05	-0.423568D-05	-0.249572D-05
35	0.873127D-05	0.131965D-04	0.149752D-05	-0.129050D-05	0.579743D-06
36	-0.117241D-04	-0.929118D-05	-0.163384D-05	-0.247283D-05	0.955978D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487806D-04				
17	0.116886D-04	0.630614D-04			
18	-0.166872D-04	-0.375864D-04	0.455465D-03		

19	-0.190912D-05	-0.182315D-05	0.264154D-05	0.104709D-04	
20	-0.814011D-06	-0.455950D-05	0.522177D-06	0.301814D-05	0.133089D-04
21	0.304678D-05	0.110279D-04	-0.288310D-04	-0.233402D-05	-0.434842D-05
22	0.845520D-06	-0.337748D-05	-0.195727D-06	0.200340D-05	0.495576D-05
23	-0.284816D-05	0.829137D-07	0.229654D-05	0.498732D-05	0.124222D-05
24	-0.377093D-05	-0.690615D-05	-0.110719D-05	0.975135D-06	0.684198D-05
25	0.868366D-05	0.159889D-04	-0.477179D-04	-0.335421D-05	-0.110525D-05
26	-0.297791D-05	-0.138233D-05	0.430580D-05	0.225139D-05	0.579168D-05
27	-0.609901D-05	-0.441065D-05	0.194723D-04	0.497465D-05	0.712846D-05
28	0.618566D-05	0.382442D-05	-0.404123D-05	-0.350938D-05	-0.125901D-05
29	0.130008D-06	0.123624D-04	-0.326467D-05	-0.155049D-05	-0.501933D-05
30	-0.669621D-05	-0.249372D-04	0.646115D-04	0.186291D-05	0.143648D-05
31	0.944917D-06	0.612628D-05	-0.172334D-05	-0.252781D-05	-0.610888D-05
32	0.551373D-05	0.666180D-05	-0.160379D-04	-0.137701D-05	-0.428879D-05
33	0.443788D-05	-0.113288D-04	0.775711D-05	0.958288D-06	0.261757D-05
34	0.757214D-05	-0.372522D-05	0.302873D-05	0.317857D-06	0.588864D-05
35	-0.665503D-06	-0.157242D-05	0.272277D-05	0.837495D-06	0.723809D-06
36	-0.639852D-05	0.443704D-05	-0.165113D-04	-0.578816D-06	-0.258479D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478233D-04				
22	-0.602736D-05	0.233604D-04			
23	-0.983673D-06	0.153794D-05	0.461649D-04		
24	-0.347926D-05	0.420413D-05	0.970338D-05	0.590986D-04	
25	0.235136D-04	-0.166299D-05	-0.575181D-05	-0.162079D-04	0.208201D-03
26	-0.462201D-05	0.106569D-04	0.269043D-05	0.129442D-04	-0.794263D-05
27	-0.509389D-05	0.100971D-04	0.146204D-04	0.375369D-04	-0.198649D-04
28	0.673607D-06	-0.177836D-05	-0.911650D-05	-0.159514D-05	-0.818974D-07
29	0.282271D-05	-0.238593D-05	-0.316674D-05	-0.137639D-04	0.414698D-05
30	-0.175206D-04	0.318831D-05	0.270458D-07	0.617784D-05	-0.443935D-04
31	0.825101D-05	-0.792186D-05	-0.265437D-05	-0.586404D-05	0.506817D-05
32	0.436275D-05	-0.447777D-05	-0.584802D-05	-0.203212D-04	0.221482D-04
33	-0.701120D-05	0.537345D-05	0.213802D-05	0.614782D-05	-0.109279D-04
34	-0.933432D-05	-0.227702D-05	-0.545076D-05	0.392346D-05	0.282932D-05
35	0.103162D-05	0.538638D-06	-0.991873D-06	0.829325D-06	0.627930D-05
36	0.190151D-05	0.151438D-05	-0.163030D-05	0.916444D-05	0.244912D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475501D-04					
27	0.414958D-04	0.387673D-03				
28	-0.855756D-06	-0.484869D-05	0.374971D-04			
29	-0.194071D-05	-0.877369D-05	0.796130D-05	0.516334D-04		
30	0.461798D-05	0.262890D-04	-0.699884D-05	-0.186063D-04	0.191137D-03	
31	-0.957342D-05	-0.968178D-05	0.280187D-05	0.130453D-04	-0.110246D-04	
32	-0.152292D-04	-0.649136D-04	0.421206D-05	0.198532D-04	-0.194295D-04	
33	0.632647D-05	0.118634D-04	-0.745228D-05	-0.373140D-04	0.567640D-04	
34	0.586274D-05	-0.977110D-05	0.450602D-05	0.437192D-05	-0.597676D-07	
35	0.186392D-05	0.255686D-05	0.112313D-05	-0.731721D-06	0.202471D-05	
36	0.836546D-05	0.188925D-04	-0.468911D-05	0.454217D-05	-0.799370D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422978D-04				
32	0.239192D-04	0.160925D-03			
33	-0.287891D-04	-0.530887D-04	0.285410D-03		
34	-0.373868D-05	-0.538168D-05	-0.228305D-04	0.120924D-02	
35	-0.415177D-05	0.301786D-05	-0.120935D-05	0.541145D-05	0.100700D-03
36	-0.510714D-05	-0.999628D-06	-0.161080D-04	0.236337D-03	0.633341D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.111115D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.095	0.229	1.000
6	-0.063	-0.209	0.218	-0.168	-0.198
7	-0.008	0.002	-0.029	-0.034	0.017
8	0.024	0.015	-0.004	0.052	0.042
9	-0.036	-0.011	0.016	-0.004	-0.048
10	0.023	0.003	-0.045	-0.016	-0.027
11	-0.026	0.029	-0.056	0.016	0.033

12	0.009	-0.011	-0.026	0.006	0.044
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.026	-0.058	-0.050	0.008
15	0.010	0.004	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.047	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.001	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.028	-0.014	-0.010	-0.025
34	-0.035	-0.001	0.023	-0.022	0.003
35	-0.010	0.009	0.043	0.006	-0.020
36	-0.007	0.010	-0.007	-0.032	0.047

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.025	1.000			
8	-0.002	-0.124	1.000		
9	0.000	0.006	0.115	1.000	
10	-0.003	-0.008	-0.168	0.044	1.000
11	-0.016	-0.008	-0.076	0.004	-0.199
12	0.009	-0.025	0.131	-0.163	0.091
13	-0.021	-0.024	0.008	-0.013	0.005
14	-0.010	0.011	0.006	-0.016	0.025
15	0.007	-0.047	-0.008	0.018	0.027
16	0.020	-0.083	0.022	-0.023	0.027
17	0.033	-0.004	0.003	0.004	-0.005
18	0.014	-0.008	-0.002	0.004	-0.042
19	0.019	0.004	-0.025	0.024	0.049

20	0.049	-0.011	0.013	0.035	-0.018
21	0.005	-0.034	-0.019	0.009	0.012
22	-0.008	0.013	-0.002	0.022	-0.064
23	-0.026	-0.016	0.015	-0.035	0.065
24	-0.017	-0.013	0.016	0.018	0.026
25	-0.012	-0.022	0.009	0.007	0.020
26	-0.002	0.013	-0.008	0.031	-0.009
27	-0.011	0.016	0.002	-0.002	-0.017
28	0.037	0.017	-0.035	-0.042	-0.030
29	0.024	0.043	-0.041	-0.028	-0.001
30	0.058	-0.018	0.001	-0.003	-0.032
31	-0.038	-0.015	-0.005	-0.039	-0.015
32	-0.017	-0.006	-0.002	-0.012	0.044
33	0.036	-0.071	0.031	0.010	-0.031
34	-0.006	-0.003	0.017	-0.006	-0.014
35	-0.031	0.049	-0.002	-0.043	-0.027
36	-0.038	0.382	0.073	-0.023	-0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.182	1.000			
13	0.009	0.033	1.000		
14	0.019	0.019	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.054	0.021	-0.122	-0.173	0.015
17	0.015	0.033	-0.096	-0.144	-0.224
18	0.020	-0.005	0.026	0.007	0.010
19	0.065	0.005	0.064	0.192	0.024
20	0.023	-0.007	0.014	0.056	0.250
21	0.003	0.011	-0.027	-0.035	0.002
22	0.006	-0.028	0.035	0.022	0.019
23	-0.021	0.036	0.079	0.160	0.009
24	-0.005	0.002	0.047	0.120	0.234
25	-0.022	0.032	-0.032	-0.036	0.030
26	0.014	0.016	0.026	-0.017	0.019
27	0.016	0.007	-0.003	0.019	0.019
28	0.018	0.019	-0.113	-0.182	-0.016
29	-0.057	-0.022	-0.001	-0.103	-0.299
30	-0.005	-0.064	0.043	0.029	0.004
31	-0.027	-0.006	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027

33	0.006	0.045	0.022	0.017	0.020
34	0.036	0.030	-0.018	-0.034	-0.013
35	0.034	0.047	0.033	-0.036	0.010
36	-0.014	-0.010	-0.011	-0.020	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.157	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.034	-0.093
33	0.038	-0.084	0.022	0.018	0.042
34	0.031	-0.013	0.004	0.003	0.046
35	-0.009	-0.020	0.013	0.026	0.020
36	-0.027	0.017	-0.023	-0.005	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.039	-0.014	-0.023	0.015	0.006
35	0.015	0.011	-0.015	0.011	0.043
36	0.008	0.009	-0.007	0.036	0.051

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.048	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.024	-0.014	0.021	0.017	0.000
35	0.027	0.013	0.018	-0.010	0.015
36	0.036	0.029	-0.023	0.019	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	-0.017	-0.012	-0.039	1.000	
35	-0.064	0.024	-0.007	0.016	1.000
36	-0.024	-0.002	-0.029	0.204	0.189

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT



TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.012	10
200	1.022	36
300	1.009	8
400	1.009	33
500	1.005	3
600	1.007	35
700	1.010	35
800	1.005	35
900	1.004	35
1000	1.002	35

PSY - single practice, psychological problems

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-18.392                      21.866

Posterior Predictive P-Value                      0.464

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.970	0.066	0.000	0.843	1.106	*
CHOICE15	-0.071	0.024	0.002	-0.116	-0.024	*
BULLY15	0.032	0.050	0.264	-0.068	0.128	
DUTIES15	-0.032	0.028	0.127	-0.083	0.024	
PRESS15	-0.032	0.026	0.111	-0.083	0.018	
KES15	0.226	0.044	0.000	0.143	0.313	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.358	-0.010	0.016
KES15	0.001	0.008	0.435	-0.014	0.017
CHOICE15	-0.001	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.070	0.035	0.020	-0.141	-0.003	*
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Thresholds

PHYCAT16\$1	1.328	0.035	0.000	1.259	1.401	*
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Residual Variances

PHYCAT16	0.015	0.013	0.000	0.001	0.051	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.065	0.022	0.002	-0.107	-0.022	*

BULLY15	0.014	0.021	0.264	-0.030	0.055	
DUTIES15	-0.027	0.023	0.127	-0.068	0.020	
PRESS15	-0.028	0.023	0.111	-0.073	0.016	
KES15	0.107	0.021	0.000	0.068	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.194	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.172	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.358	-0.022	0.033	
KES15	0.002	0.014	0.435	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.504	0.223	0.020	-0.871	-0.027	*
Thresholds PHYCAT16\$1	9.109	4.243	0.000	5.412	21.851	*
Residual Variances PHYCAT16	0.746	0.207	0.000	0.241	0.995	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.254	0.207	0.000	0.005	0.759

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
— 0 —

NU



PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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	THETA	
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

	ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

	ALPHA	
	PRESS15	DUTIES15
	<u>5</u>	<u>6</u>

	BETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
PHYCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT1 6	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
PHYCAT1 6	
<u></u>	<u></u>
36	

NU	
PHYCAT1 6	SINGLE
<u></u>	<u></u>
0	0

	LAMBDA	
	PHYCAT1 6	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	<u>0.000</u>
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.496

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity



Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450508D-04				
2	0.998023D-05	0.604922D-04			
3	-0.752735D-05	-0.221272D-04	0.213891D-03		
4	0.336809D-05	0.123635D-04	-0.913280D-05	0.473251D-04	
5	0.114650D-04	0.198147D-04	-0.196388D-04	0.220978D-04	0.197378D-03
6	-0.553824D-05	-0.214108D-04	0.418984D-04	-0.152085D-04	-0.365478D-04
7	-0.311013D-05	0.121433D-05	-0.305342D-04	-0.168246D-04	0.159843D-04
8	0.691523D-05	0.491498D-05	-0.230839D-05	0.156921D-04	0.253917D-04
9	-0.558132D-05	-0.248454D-05	0.576297D-05	-0.897413D-06	-0.162220D-04
10	0.789108D-05	0.103931D-05	-0.326633D-04	-0.548991D-05	-0.186697D-04
11	-0.446185D-05	0.589198D-05	-0.216022D-04	0.282057D-05	0.117863D-04
12	0.153382D-05	-0.224079D-05	-0.107520D-04	0.118971D-05	0.170643D-04
13	0.215283D-07	0.962068D-06	-0.186340D-05	-0.690675D-06	-0.190619D-05
14	0.987788D-06	0.717181D-06	-0.305779D-05	-0.125318D-05	0.376008D-06
15	0.351134D-06	0.151063D-06	-0.302333D-05	0.346956D-06	-0.584272D-06
16	-0.661027D-06	-0.107496D-05	-0.119214D-05	0.616837D-06	-0.267238D-05
17	-0.476948D-06	-0.207630D-05	0.449086D-05	0.339498D-05	0.677051D-05
18	-0.433887D-05	-0.469899D-05	0.462432D-05	-0.748270D-05	-0.279378D-05
19	0.100919D-05	0.724099D-06	-0.135821D-05	0.186301D-06	-0.825408D-06
20	0.284041D-06	-0.267643D-06	-0.426499D-06	-0.380299D-06	-0.160302D-05
21	-0.930509D-06	-0.417988D-07	0.422914D-06	0.300224D-05	0.478699D-05
22	0.154101D-06	0.193328D-05	0.428064D-06	-0.813674D-06	0.189271D-05
23	0.990007D-06	0.785142D-06	0.127257D-05	-0.122835D-06	0.213219D-05

24	0.147344D-05	0.164968D-05	-0.283335D-05	-0.237139D-06	-0.554408D-05
25	0.110351D-06	0.221075D-05	0.875071D-05	0.132907D-05	0.639743D-05
26	0.496085D-06	0.699928D-06	0.451550D-05	-0.203266D-06	0.492868D-05
27	-0.229259D-05	0.498562D-05	0.948659D-05	0.654451D-06	0.396348D-05
28	-0.979989D-06	-0.208304D-05	-0.120571D-05	-0.426086D-06	0.212194D-05
29	-0.125447D-05	-0.871246D-06	0.434051D-05	-0.203771D-06	0.909502D-05
30	-0.138240D-06	0.880289D-06	0.125051D-05	-0.170482D-05	-0.139344D-04
31	-0.994953D-06	0.855973D-06	0.156028D-05	0.635079D-06	0.237369D-05
32	-0.131381D-05	0.501300D-06	0.633578D-05	0.168492D-05	-0.603321D-05
33	-0.126975D-05	-0.374021D-05	-0.332064D-05	-0.111445D-05	-0.591341D-05
34	-0.847482D-05	0.445189D-05	0.231555D-05	-0.128020D-05	0.518041D-05
35	-0.808214D-06	0.248366D-05	0.903739D-05	0.706963D-06	-0.363417D-05
36	0.126319D-05	0.470769D-05	-0.845854D-05	-0.747074D-05	0.251260D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172642D-03				
7	-0.248492D-04	0.435375D-02			
8	-0.881684D-06	-0.363629D-03	0.190477D-02		
9	0.810707D-06	0.345345D-05	0.118817D-03	0.571607D-03	
10	-0.249064D-05	-0.300695D-04	-0.364694D-03	0.522757D-04	0.245089D-02
11	-0.498331D-05	-0.190175D-04	-0.864205D-04	0.227814D-05	-0.250835D-03
12	0.352916D-05	-0.558745D-04	0.160854D-03	-0.107568D-03	0.124442D-03
13	-0.127965D-05	-0.788567D-05	0.165363D-05	-0.160971D-05	0.998426D-06
14	-0.483017D-06	0.281423D-05	0.107517D-05	-0.131477D-05	0.442313D-05
15	0.553286D-06	-0.166150D-04	-0.183304D-05	0.236758D-05	0.750400D-05
16	0.185958D-05	-0.410705D-04	0.642926D-05	-0.361135D-05	0.977006D-05
17	0.339953D-05	-0.344800D-05	0.729220D-06	0.768379D-06	-0.251856D-05
18	0.391216D-05	-0.176921D-04	-0.161880D-05	0.241702D-05	-0.449753D-04
19	0.811220D-06	0.624334D-06	-0.340066D-05	0.185558D-05	0.790283D-05
20	0.233397D-05	-0.327371D-05	0.223391D-05	0.305015D-05	-0.325319D-05
21	0.420414D-06	-0.149608D-04	-0.577987D-05	0.150959D-05	0.376626D-05
22	-0.486614D-06	0.505236D-05	-0.526740D-06	0.252848D-05	-0.148502D-04
23	-0.233432D-05	-0.855836D-05	0.430068D-05	-0.571103D-05	0.216886D-04
24	-0.167605D-05	-0.770248D-05	0.518475D-05	0.293629D-05	0.997643D-05
25	-0.221317D-05	-0.239148D-04	0.592237D-05	0.279586D-05	0.141359D-04
26	-0.190295D-06	0.660006D-05	-0.248824D-05	0.489947D-05	-0.297516D-05
27	-0.276643D-05	0.200386D-04	0.114109D-05	-0.679196D-06	-0.169508D-04
28	0.297512D-05	0.625602D-05	-0.941864D-05	-0.613414D-05	-0.906194D-05
29	0.228579D-05	0.175633D-04	-0.129963D-04	-0.483256D-05	-0.432486D-06
30	0.105509D-04	-0.113364D-04	0.385355D-06	-0.112877D-05	-0.214761D-04
31	-0.325662D-05	-0.658935D-05	-0.122946D-05	-0.617913D-05	-0.498196D-05

32	-0.288167D-05	-0.386675D-05	-0.100197D-05	-0.406084D-05	0.271654D-04
33	0.797472D-05	-0.820045D-04	0.214747D-04	0.509897D-05	-0.251905D-04
34	-0.244429D-05	-0.951792D-04	0.730358D-04	-0.125586D-04	-0.889261D-06
35	-0.364930D-05	0.337886D-04	-0.770640D-05	-0.174136D-04	-0.687707D-05
36	-0.185007D-04	0.813865D-03	0.118323D-03	-0.124283D-04	-0.346780D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.657339D-03				
12	0.129637D-03	0.780074D-03			
13	0.100126D-05	0.436842D-05	0.209808D-04		
14	0.189958D-05	0.188619D-05	0.447100D-05	0.131018D-04	
15	0.423836D-05	0.172078D-05	0.351812D-06	0.529135D-05	0.319547D-04
16	-0.990214D-05	0.411236D-05	-0.391588D-05	-0.438044D-05	0.580595D-06
17	0.278940D-05	0.737146D-05	-0.347751D-05	-0.414850D-05	-0.100653D-04
18	0.110750D-04	-0.304882D-05	0.255309D-05	0.536433D-06	0.119556D-05
19	0.541194D-05	0.400128D-06	0.953519D-06	0.225332D-05	0.446058D-06
20	0.194087D-05	-0.606562D-06	0.235721D-06	0.745688D-06	0.514862D-05
21	0.361226D-06	0.224988D-05	-0.854035D-06	-0.881846D-06	0.700965D-07
22	0.707019D-06	-0.388566D-05	0.786172D-06	0.381484D-06	0.514255D-06
23	-0.329064D-05	0.704758D-05	0.247485D-05	0.392743D-05	0.332802D-06
24	-0.101164D-05	0.707757D-06	0.165436D-05	0.334596D-05	0.101666D-04
25	-0.917874D-05	0.128603D-04	-0.216251D-05	-0.187230D-05	0.247251D-05
26	0.201635D-05	0.302349D-05	0.811866D-06	-0.413723D-06	0.742533D-06
27	0.887571D-05	0.309515D-05	-0.279272D-06	0.136312D-05	0.210728D-05
28	0.253399D-05	0.317026D-05	-0.316029D-05	-0.404226D-05	-0.564811D-06
29	-0.107997D-04	-0.426239D-05	-0.476753D-07	-0.267153D-05	-0.121462D-04
30	-0.133418D-05	-0.244943D-04	0.272295D-05	0.142791D-05	0.290776D-06
31	-0.443550D-05	-0.110052D-05	-0.656486D-06	-0.233116D-06	-0.132758D-05
32	-0.374450D-05	0.827474D-06	-0.448473D-06	-0.128333D-05	-0.190827D-05
33	0.366922D-05	0.205857D-04	0.171316D-05	0.106401D-05	0.186116D-05
34	-0.281489D-04	0.122346D-04	-0.175791D-05	-0.235845D-05	0.197490D-05
35	0.246222D-05	0.197280D-04	0.274576D-05	-0.796606D-06	0.204877D-05
36	-0.240039D-04	-0.689489D-05	-0.182451D-05	-0.292019D-05	0.285373D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.487964D-04				
17	0.116932D-04	0.630648D-04			
18	-0.166592D-04	-0.375839D-04	0.455398D-03		

19	-0.191005D-05	-0.182456D-05	0.263506D-05	0.104700D-04	
20	-0.816686D-06	-0.456171D-05	0.521033D-06	0.301789D-05	0.133094D-04
21	0.305023D-05	0.110303D-04	-0.288211D-04	-0.233314D-05	-0.434950D-05
22	0.845376D-06	-0.337781D-05	-0.194258D-06	0.200425D-05	0.495594D-05
23	-0.285324D-05	0.870808D-07	0.228986D-05	0.498397D-05	0.123914D-05
24	-0.378017D-05	-0.690252D-05	-0.112069D-05	0.980975D-06	0.684509D-05
25	0.869851D-05	0.159922D-04	-0.477173D-04	-0.335584D-05	-0.110524D-05
26	-0.298588D-05	-0.138529D-05	0.431594D-05	0.225551D-05	0.579121D-05
27	-0.611906D-05	-0.439599D-05	0.195147D-04	0.497194D-05	0.711850D-05
28	0.619413D-05	0.382886D-05	-0.404827D-05	-0.351148D-05	-0.126142D-05
29	0.139620D-06	0.123624D-04	-0.327101D-05	-0.155037D-05	-0.502103D-05
30	-0.670611D-05	-0.249383D-04	0.646110D-04	0.186054D-05	0.143689D-05
31	0.949252D-06	0.612957D-05	-0.172790D-05	-0.252648D-05	-0.610856D-05
32	0.552120D-05	0.666000D-05	-0.160369D-04	-0.137478D-05	-0.428644D-05
33	0.443342D-05	-0.113253D-04	0.775729D-05	0.959257D-06	0.261832D-05
34	0.721446D-05	0.539416D-05	0.132712D-04	-0.101977D-06	0.217858D-05
35	-0.214121D-05	-0.178584D-05	0.142109D-05	0.101352D-05	0.850460D-06
36	-0.884215D-05	0.664111D-05	-0.187438D-04	-0.950567D-06	-0.414466D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478257D-04				
22	-0.602927D-05	0.233611D-04			
23	-0.982245D-06	0.153807D-05	0.461732D-04		
24	-0.348125D-05	0.420696D-05	0.970976D-05	0.591038D-04	
25	0.235166D-04	-0.166201D-05	-0.574925D-05	-0.162046D-04	0.208204D-03
26	-0.462459D-05	0.106537D-04	0.268480D-05	0.129440D-04	-0.794710D-05
27	-0.508206D-05	0.100916D-04	0.146403D-04	0.375374D-04	-0.198702D-04
28	0.675524D-06	-0.178041D-05	-0.912214D-05	-0.159969D-05	-0.776999D-07
29	0.282442D-05	-0.238682D-05	-0.317629D-05	-0.137687D-04	0.415008D-05
30	-0.175182D-04	0.319062D-05	0.338375D-07	0.618403D-05	-0.443975D-04
31	0.825147D-05	-0.792209D-05	-0.265451D-05	-0.586750D-05	0.506677D-05
32	0.435953D-05	-0.447451D-05	-0.584567D-05	-0.203177D-04	0.221428D-04
33	-0.700977D-05	0.537362D-05	0.214830D-05	0.614634D-05	-0.109256D-04
34	-0.438190D-05	-0.712135D-05	-0.358960D-05	-0.103767D-05	0.133713D-04
35	0.189127D-05	0.685304D-06	-0.125113D-05	0.263679D-05	0.763420D-05
36	0.547859D-05	0.133670D-05	-0.318167D-05	0.696725D-05	0.269805D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475432D-04					
27	0.414778D-04	0.387707D-03				
28	-0.859183D-06	-0.485294D-05	0.375109D-04			
29	-0.194346D-05	-0.878378D-05	0.797261D-05	0.516360D-04		
30	0.462820D-05	0.262735D-04	-0.700928D-05	-0.186098D-04	0.191139D-03	
31	-0.957225D-05	-0.967713D-05	0.280318D-05	0.130471D-04	-0.110262D-04	
32	-0.152180D-04	-0.649168D-04	0.421526D-05	0.198532D-04	-0.194406D-04	
33	0.632430D-05	0.118252D-04	-0.747651D-05	-0.373193D-04	0.567740D-04	
34	0.143417D-05	-0.113007D-04	0.623365D-05	0.748841D-05	-0.551088D-05	
35	0.219901D-05	0.416026D-05	-0.816295D-06	-0.264544D-05	0.236630D-05	
36	0.772073D-05	0.147013D-04	-0.555219D-05	0.256067D-05	-0.707349D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422956D-04				
32	0.239144D-04	0.160903D-03			
33	-0.287880D-04	-0.530719D-04	0.285426D-03		
34	0.110118D-04	0.149967D-05	-0.417544D-04	0.123764D-02	
35	-0.492255D-05	0.372833D-05	-0.433620D-05	-0.574471D-04	0.165325D-03
36	-0.231043D-05	0.189919D-05	-0.212075D-04	0.152084D-03	0.675040D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.123461D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.002	-0.032	-0.037	0.017
8	0.024	0.014	-0.004	0.052	0.041
9	-0.035	-0.013	0.016	-0.005	-0.048
10	0.024	0.003	-0.045	-0.016	-0.027
11	-0.026	0.030	-0.058	0.016	0.033

12	0.008	-0.010	-0.026	0.006	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.033	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.001	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.028	-0.013	-0.010	-0.025
34	-0.036	0.016	0.005	-0.005	0.010
35	-0.009	0.025	0.048	0.008	-0.020
36	0.005	0.017	-0.016	-0.031	0.051

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.029	1.000			
8	-0.002	-0.126	1.000		
9	0.003	0.002	0.114	1.000	
10	-0.004	-0.009	-0.169	0.044	1.000
11	-0.015	-0.011	-0.077	0.004	-0.198
12	0.010	-0.030	0.132	-0.161	0.090
13	-0.021	-0.026	0.008	-0.015	0.004
14	-0.010	0.012	0.007	-0.015	0.025
15	0.007	-0.045	-0.007	0.018	0.027
16	0.020	-0.089	0.021	-0.022	0.028
17	0.033	-0.007	0.002	0.004	-0.006
18	0.014	-0.013	-0.002	0.005	-0.043
19	0.019	0.003	-0.024	0.024	0.049

20	0.049	-0.014	0.014	0.035	-0.018
21	0.005	-0.033	-0.019	0.009	0.011
22	-0.008	0.016	-0.002	0.022	-0.062
23	-0.026	-0.019	0.015	-0.035	0.064
24	-0.017	-0.015	0.015	0.016	0.026
25	-0.012	-0.025	0.009	0.008	0.020
26	-0.002	0.015	-0.008	0.030	-0.009
27	-0.011	0.015	0.001	-0.001	-0.017
28	0.037	0.015	-0.035	-0.042	-0.030
29	0.024	0.037	-0.041	-0.028	-0.001
30	0.058	-0.012	0.001	-0.003	-0.031
31	-0.038	-0.015	-0.004	-0.040	-0.015
32	-0.017	-0.005	-0.002	-0.013	0.043
33	0.036	-0.074	0.029	0.013	-0.030
34	-0.005	-0.041	0.048	-0.015	-0.001
35	-0.022	0.040	-0.014	-0.057	-0.011
36	-0.040	0.351	0.077	-0.015	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.009	0.034	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.011	0.014	0.259	1.000
16	-0.055	0.021	-0.122	-0.173	0.015
17	0.014	0.033	-0.096	-0.144	-0.224
18	0.020	-0.005	0.026	0.007	0.010
19	0.065	0.004	0.064	0.192	0.024
20	0.021	-0.006	0.014	0.056	0.250
21	0.002	0.012	-0.027	-0.035	0.002
22	0.006	-0.029	0.036	0.022	0.019
23	-0.019	0.037	0.080	0.160	0.009
24	-0.005	0.003	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.011	0.016	0.026	-0.017	0.019
27	0.018	0.006	-0.003	0.019	0.019
28	0.016	0.019	-0.113	-0.182	-0.016
29	-0.059	-0.021	-0.001	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.027	-0.006	-0.022	-0.010	-0.036
32	-0.012	0.002	-0.008	-0.028	-0.027

33	0.008	0.044	0.022	0.017	0.019
34	-0.031	0.012	-0.011	-0.019	0.010
35	0.007	0.055	0.047	-0.017	0.028
36	-0.027	-0.007	-0.011	-0.023	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.157	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.192
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.018	0.042
34	0.029	0.019	0.018	-0.001	0.017
35	-0.024	-0.017	0.005	0.024	0.018
36	-0.036	0.024	-0.025	-0.008	-0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040



30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.018	-0.042	-0.015	-0.004	0.026
35	0.021	0.011	-0.014	0.027	0.041
36	0.023	0.008	-0.013	0.026	0.053

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.006	-0.016	0.029	0.030	-0.011
35	0.025	0.016	-0.010	-0.029	0.013
36	0.032	0.021	-0.026	0.010	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.048	0.003	-0.070	1.000	
35	-0.059	0.023	-0.020	-0.127	1.000
36	-0.010	0.004	-0.036	0.123	0.149

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.012	10
200	1.014	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.005	35
700	1.007	35
800	1.003	35
900	1.002	35
1000	1.000	35

SMO - single practice, smoking cessation

SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-18.220                      22.207

Posterior Predictive P-Value                      0.516

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.969	0.066	0.000	0.843	1.104	*
CHOICE15	-0.073	0.024	0.002	-0.118	-0.027	*
BULLY15	0.031	0.050	0.275	-0.070	0.127	
DUTIES15	-0.031	0.028	0.138	-0.082	0.025	
PRESS15	-0.033	0.026	0.106	-0.084	0.018	
KES15	0.224	0.044	0.000	0.142	0.313	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.105	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.435	-0.014	0.017
CHOICE15	-0.002	0.015	0.456	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.046	0.030	0.058	-0.109	0.015
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Thresholds

PHYCAT16\$1	1.324	0.037	0.000	1.250	1.400	*
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Residual Variances

PHYCAT16	0.018	0.014	0.000	0.002	0.055	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.067	0.022	0.002	-0.108	-0.024	*

BULLY15	0.013	0.021	0.275	-0.030	0.055	
DUTIES15	-0.026	0.023	0.138	-0.068	0.021	
PRESS15	-0.029	0.023	0.106	-0.074	0.016	
KES15	0.107	0.021	0.000	0.068	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.194	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.172	0.014	0.000	-0.199	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.435	-0.025	0.031	
CHOICE15	-0.001	0.014	0.456	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	



DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.400	0.236	0.058	-0.801	0.132	
Thresholds PHYCAT16\$1	8.825	4.170	0.000	5.282	21.152	*
Residual Variances PHYCAT16	0.839	0.181	0.000	0.359	0.999	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.020	0.000	0.177	0.258

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.161	0.181	0.000	0.001	0.641

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>36</u>

NU	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>

LAMBDA	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>
SINGLE	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	1.000
SINGLE	0.000
	0.000
	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000
	0.000

ALPHA
PHYCAT16
SINGLE



	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.608

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450667D-04				
2	0.998824D-05	0.604979D-04			
3	-0.751998D-05	-0.221203D-04	0.213884D-03		
4	0.336947D-05	0.123658D-04	-0.913106D-05	0.473265D-04	
5	0.114622D-04	0.198140D-04	-0.196307D-04	0.220976D-04	0.197378D-03
6	-0.554598D-05	-0.214187D-04	0.418910D-04	-0.152104D-04	-0.365492D-04
7	-0.337940D-05	0.160040D-05	-0.311950D-04	-0.171527D-04	0.167000D-04
8	0.657137D-05	0.502555D-05	-0.164712D-05	0.155884D-04	0.248838D-04
9	-0.569883D-05	-0.212306D-05	0.617941D-05	-0.801720D-06	-0.161580D-04
10	0.782566D-05	0.129035D-05	-0.323012D-04	-0.533382D-05	-0.184929D-04
11	-0.464780D-05	0.615950D-05	-0.216811D-04	0.298273D-05	0.118284D-04
12	0.160966D-05	-0.253441D-05	-0.112460D-04	0.124705D-05	0.168133D-04
13	0.243542D-07	0.965000D-06	-0.186862D-05	-0.689022D-06	-0.190240D-05
14	0.982373D-06	0.715250D-06	-0.305497D-05	-0.125294D-05	0.374871D-06
15	0.339802D-06	0.146151D-06	-0.301654D-05	0.346514D-06	-0.584887D-06
16	-0.660944D-06	-0.107427D-05	-0.119122D-05	0.620081D-06	-0.266961D-05
17	-0.474249D-06	-0.207815D-05	0.448999D-05	0.339712D-05	0.677747D-05
18	-0.433193D-05	-0.469093D-05	0.463269D-05	-0.749329D-05	-0.278562D-05
19	0.100582D-05	0.722923D-06	-0.135462D-05	0.185655D-06	-0.825968D-06
20	0.282630D-06	-0.267747D-06	-0.426249D-06	-0.380836D-06	-0.160252D-05
21	-0.926822D-06	-0.420665D-07	0.421055D-06	0.300285D-05	0.478765D-05
22	0.151840D-06	0.193356D-05	0.430005D-06	-0.814387D-06	0.189443D-05
23	0.994963D-06	0.789411D-06	0.126267D-05	-0.122932D-06	0.213386D-05

24	0.147372D-05	0.165015D-05	-0.283332D-05	-0.236818D-06	-0.554529D-05
25	0.113112D-06	0.220623D-05	0.875809D-05	0.132726D-05	0.639146D-05
26	0.497658D-06	0.700883D-06	0.451784D-05	-0.203739D-06	0.493000D-05
27	-0.228469D-05	0.498188D-05	0.948329D-05	0.649848D-06	0.395235D-05
28	-0.983384D-06	-0.208549D-05	-0.120479D-05	-0.422041D-06	0.212013D-05
29	-0.125065D-05	-0.868807D-06	0.433720D-05	-0.202222D-06	0.909289D-05
30	-0.150357D-06	0.877676D-06	0.126031D-05	-0.170740D-05	-0.139392D-04
31	-0.991842D-06	0.856908D-06	0.155458D-05	0.637133D-06	0.236941D-05
32	-0.132110D-05	0.501286D-06	0.634222D-05	0.168733D-05	-0.602964D-05
33	-0.127829D-05	-0.375302D-05	-0.331818D-05	-0.112195D-05	-0.591718D-05
34	-0.918365D-05	0.131909D-05	0.577644D-05	-0.412113D-05	0.437342D-05
35	-0.144985D-05	0.255318D-05	0.764792D-05	0.105703D-05	-0.573449D-05
36	-0.526879D-06	0.532514D-05	-0.829177D-05	-0.942376D-05	0.254538D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172657D-03				
7	-0.265891D-04	0.435008D-02			
8	-0.100983D-05	-0.364825D-03	0.190885D-02		
9	0.679171D-06	0.313417D-05	0.118210D-03	0.570530D-03	
10	-0.298371D-05	-0.306162D-04	-0.365643D-03	0.508914D-04	0.245222D-02
11	-0.508479D-05	-0.194055D-04	-0.861844D-04	0.182304D-05	-0.252006D-03
12	0.391671D-05	-0.580434D-04	0.161195D-03	-0.106025D-03	0.125408D-03
13	-0.128488D-05	-0.789482D-05	0.199147D-05	-0.133903D-05	0.119286D-05
14	-0.478857D-06	0.287787D-05	0.107059D-05	-0.137415D-05	0.444173D-05
15	0.559260D-06	-0.163324D-04	-0.170016D-05	0.238553D-05	0.747738D-05
16	0.185820D-05	-0.416224D-04	0.658105D-05	-0.342450D-05	0.970734D-05
17	0.339568D-05	-0.327498D-05	0.829135D-06	0.936361D-06	-0.263934D-05
18	0.391255D-05	-0.194457D-04	-0.284981D-05	0.228464D-05	-0.447351D-04
19	0.812114D-06	0.446645D-06	-0.348239D-05	0.183651D-05	0.794569D-05
20	0.233382D-05	-0.313159D-05	0.234014D-05	0.318355D-05	-0.318904D-05
21	0.418461D-06	-0.149290D-04	-0.601622D-05	0.158590D-05	0.406350D-05
22	-0.489376D-06	0.453762D-05	-0.409248D-06	0.254175D-05	-0.149606D-04
23	-0.233389D-05	-0.891763D-05	0.400312D-05	-0.572432D-05	0.219364D-04
24	-0.168001D-05	-0.740771D-05	0.551744D-05	0.316308D-05	0.102127D-04
25	-0.221919D-05	-0.257550D-04	0.650293D-05	0.327570D-05	0.144557D-04
26	-0.195526D-06	0.624632D-05	-0.243985D-05	0.512368D-05	-0.283403D-05
27	-0.276726D-05	0.173995D-04	0.505281D-06	-0.628311D-06	-0.168326D-04
28	0.296675D-05	0.690833D-05	-0.930308D-05	-0.596791D-05	-0.905080D-05
29	0.228044D-05	0.173977D-04	-0.132878D-04	-0.487444D-05	-0.431275D-06
30	0.105543D-04	-0.103922D-04	0.408548D-06	-0.146043D-05	-0.215253D-04
31	-0.325513D-05	-0.608234D-05	-0.144860D-05	-0.648189D-05	-0.502190D-05

32	-0.288313D-05	-0.293128D-05	-0.749878D-06	-0.397110D-05	0.273275D-04
33	0.799198D-05	-0.840011D-04	0.198337D-04	0.429402D-05	-0.256316D-04
34	-0.314097D-05	-0.562861D-04	0.593907D-04	-0.266631D-05	-0.338154D-05
35	-0.373171D-05	0.291771D-04	-0.532307D-05	-0.135174D-04	-0.584620D-05
36	-0.193523D-04	0.805484D-03	0.131870D-03	-0.457653D-05	-0.319166D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.658789D-03				
12	0.130334D-03	0.781804D-03			
13	0.109039D-05	0.422087D-05	0.209827D-04		
14	0.187780D-05	0.195732D-05	0.447318D-05	0.131019D-04	
15	0.418184D-05	0.162972D-05	0.355748D-06	0.529134D-05	0.319545D-04
16	-0.984663D-05	0.365928D-05	-0.391914D-05	-0.438498D-05	0.576921D-06
17	0.283286D-05	0.727028D-05	-0.347673D-05	-0.415206D-05	-0.100695D-04
18	0.113119D-04	-0.260872D-05	0.255611D-05	0.529876D-06	0.119299D-05
19	0.547512D-05	0.430442D-06	0.955665D-06	0.225347D-05	0.445752D-06
20	0.200971D-05	-0.711770D-06	0.238190D-06	0.745616D-06	0.514699D-05
21	0.248554D-06	0.230324D-05	-0.856728D-06	-0.881840D-06	0.708560D-07
22	0.680596D-06	-0.397858D-05	0.783809D-06	0.379703D-06	0.513000D-06
23	-0.322784D-05	0.715048D-05	0.248126D-05	0.392781D-05	0.330120D-06
24	-0.106967D-05	0.452127D-06	0.165523D-05	0.334466D-05	0.101616D-04
25	-0.938512D-05	0.125723D-04	-0.216765D-05	-0.187275D-05	0.246904D-05
26	0.205256D-05	0.284784D-05	0.810299D-06	-0.414242D-06	0.742357D-06
27	0.873540D-05	0.327706D-05	-0.300686D-06	0.135128D-05	0.210084D-05
28	0.249692D-05	0.292411D-05	-0.316270D-05	-0.404290D-05	-0.566669D-06
29	-0.106810D-04	-0.406615D-05	-0.504698D-07	-0.267307D-05	-0.121481D-04
30	-0.135941D-05	-0.243398D-04	0.272751D-05	0.143341D-05	0.294917D-06
31	-0.448678D-05	-0.788721D-06	-0.657591D-06	-0.233424D-06	-0.132722D-05
32	-0.364166D-05	0.723410D-06	-0.444792D-06	-0.128137D-05	-0.190689D-05
33	0.317579D-05	0.211325D-04	0.171097D-05	0.106116D-05	0.185800D-05
34	-0.240089D-04	-0.143059D-04	-0.526870D-06	-0.348611D-06	0.326236D-05
35	0.236360D-05	0.136285D-04	0.304062D-05	-0.728795D-06	0.199851D-05
36	-0.263166D-04	-0.145050D-04	-0.211053D-05	-0.332653D-05	0.361263D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487921D-04				
17	0.116896D-04	0.630669D-04			
18	-0.166621D-04	-0.375820D-04	0.455452D-03		

19	-0.190905D-05	-0.182573D-05	0.263073D-05	0.104685D-04	
20	-0.817189D-06	-0.456367D-05	0.520873D-06	0.301641D-05	0.133084D-04
21	0.305051D-05	0.110302D-04	-0.288224D-04	-0.233174D-05	-0.434801D-05
22	0.847438D-06	-0.337736D-05	-0.201703D-06	0.200343D-05	0.495590D-05
23	-0.285364D-05	0.849740D-07	0.227681D-05	0.498513D-05	0.123875D-05
24	-0.377924D-05	-0.690461D-05	-0.112496D-05	0.978704D-06	0.684253D-05
25	0.870194D-05	0.159906D-04	-0.477203D-04	-0.335376D-05	-0.110115D-05
26	-0.298157D-05	-0.138541D-05	0.431443D-05	0.225364D-05	0.579048D-05
27	-0.610860D-05	-0.439542D-05	0.194970D-04	0.495927D-05	0.711451D-05
28	0.619020D-05	0.382777D-05	-0.404502D-05	-0.351108D-05	-0.125949D-05
29	0.137867D-06	0.123657D-04	-0.327483D-05	-0.154817D-05	-0.501854D-05
30	-0.670867D-05	-0.249474D-04	0.646281D-04	0.185897D-05	0.143582D-05
31	0.941738D-06	0.612886D-05	-0.171821D-05	-0.252476D-05	-0.610757D-05
32	0.551178D-05	0.665954D-05	-0.160134D-04	-0.137015D-05	-0.428545D-05
33	0.443875D-05	-0.113242D-04	0.775441D-05	0.956390D-06	0.261528D-05
34	0.846566D-05	0.249384D-05	-0.995687D-05	-0.144534D-05	0.123919D-05
35	-0.221046D-05	-0.164953D-05	-0.418474D-06	0.815606D-06	0.627782D-06
36	-0.766557D-05	0.708879D-05	-0.238035D-04	-0.176626D-05	-0.436774D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478233D-04				
22	-0.602713D-05	0.233621D-04			
23	-0.979966D-06	0.153721D-05	0.461675D-04		
24	-0.347917D-05	0.420613D-05	0.970597D-05	0.590978D-04	
25	0.235119D-04	-0.165940D-05	-0.574186D-05	-0.161961D-04	0.208191D-03
26	-0.462190D-05	0.106541D-04	0.268416D-05	0.129425D-04	-0.794035D-05
27	-0.507114D-05	0.100905D-04	0.146287D-04	0.375321D-04	-0.198662D-04
28	0.671900D-06	-0.177798D-05	-0.912224D-05	-0.159874D-05	-0.874981D-07
29	0.282192D-05	-0.238579D-05	-0.317142D-05	-0.137635D-04	0.414543D-05
30	-0.175197D-04	0.318701D-05	0.299834D-07	0.618092D-05	-0.443869D-04
31	0.824921D-05	-0.792261D-05	-0.265265D-05	-0.586553D-05	0.506137D-05
32	0.435387D-05	-0.447575D-05	-0.583503D-05	-0.203159D-04	0.221323D-04
33	-0.700655D-05	0.537424D-05	0.214989D-05	0.614562D-05	-0.109087D-04
34	-0.859567D-05	0.109150D-06	-0.818263D-05	0.197529D-05	0.843596D-05
35	0.145824D-05	0.110452D-05	-0.185685D-05	0.285165D-05	0.771633D-05
36	0.362345D-05	0.174885D-05	-0.616749D-05	0.816842D-05	0.283980D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475447D-04									
27	0.414781D-04	0.387691D-03								
28	-0.858505D-06	-0.484825D-05	0.375100D-04							
29	-0.194266D-05	-0.878127D-05	0.797489D-05	0.516386D-04						
30	0.462356D-05	0.262772D-04	-0.700248D-05	-0.186044D-04	0.191142D-03					
31	-0.957256D-05	-0.967502D-05	0.279981D-05	0.130454D-04	-0.110206D-04					
32	-0.152191D-04	-0.649052D-04	0.420815D-05	0.198503D-04	-0.194272D-04					
33	0.632643D-05	0.118353D-04	-0.747824D-05	-0.373258D-04	0.567642D-04					
34	0.187312D-05	-0.306923D-04	0.716972D-05	0.206006D-05	-0.545776D-05					
35	0.213575D-05	0.301469D-05	-0.105817D-05	-0.236645D-05	0.311683D-05					
36	0.748711D-05	0.454316D-05	-0.413031D-05	0.216926D-05	-0.788808D-05					

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422954D-04				
32	0.239134D-04	0.160904D-03			
33	-0.287896D-04	-0.530733D-04	0.285456D-03		
34	0.294336D-05	0.693759D-05	-0.292612D-04	0.917299D-03	
35	-0.488941D-05	0.436436D-05	-0.583513D-05	-0.440795D-04	0.188632D-03
36	-0.116495D-05	0.269105D-05	-0.281432D-04	0.283514D-03	0.559713D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.135881D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.194	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.008	0.003	-0.032	-0.038	0.018
8	0.022	0.015	-0.003	0.052	0.041
9	-0.036	-0.011	0.018	-0.005	-0.048
10	0.024	0.003	-0.045	-0.016	-0.027
11	-0.027	0.031	-0.058	0.017	0.033

12	0.009	-0.012	-0.028	0.006	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.040	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.036	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.042	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.033	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.016	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.045	0.006	0.013	-0.020	0.010
35	-0.016	0.024	0.038	0.011	-0.030
36	-0.002	0.019	-0.015	-0.037	0.049

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.031	1.000			
8	-0.002	-0.127	1.000		
9	0.002	0.002	0.113	1.000	
10	-0.005	-0.009	-0.169	0.043	1.000
11	-0.015	-0.011	-0.077	0.003	-0.198
12	0.011	-0.031	0.132	-0.159	0.091
13	-0.021	-0.026	0.010	-0.012	0.005
14	-0.010	0.012	0.007	-0.016	0.025
15	0.008	-0.044	-0.007	0.018	0.027
16	0.020	-0.090	0.022	-0.021	0.028
17	0.033	-0.006	0.002	0.005	-0.007
18	0.014	-0.014	-0.003	0.004	-0.042
19	0.019	0.002	-0.025	0.024	0.050

20	0.049	-0.013	0.015	0.037	-0.018
21	0.005	-0.033	-0.020	0.010	0.012
22	-0.008	0.014	-0.002	0.022	-0.063
23	-0.026	-0.020	0.013	-0.035	0.065
24	-0.017	-0.015	0.016	0.017	0.027
25	-0.012	-0.027	0.010	0.010	0.020
26	-0.002	0.014	-0.008	0.031	-0.008
27	-0.011	0.013	0.001	-0.001	-0.017
28	0.037	0.017	-0.035	-0.041	-0.030
29	0.024	0.037	-0.042	-0.028	-0.001
30	0.058	-0.011	0.001	-0.004	-0.031
31	-0.038	-0.014	-0.005	-0.042	-0.016
32	-0.017	-0.004	-0.001	-0.013	0.044
33	0.036	-0.075	0.027	0.011	-0.031
34	-0.008	-0.028	0.045	-0.004	-0.002
35	-0.021	0.032	-0.009	-0.041	-0.009
36	-0.040	0.331	0.082	-0.005	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.182	1.000			
13	0.009	0.033	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.055	0.019	-0.122	-0.173	0.015
17	0.014	0.033	-0.096	-0.144	-0.224
18	0.021	-0.004	0.026	0.007	0.010
19	0.066	0.005	0.064	0.192	0.024
20	0.021	-0.007	0.014	0.056	0.250
21	0.001	0.012	-0.027	-0.035	0.002
22	0.005	-0.029	0.035	0.022	0.019
23	-0.019	0.038	0.080	0.160	0.009
24	-0.005	0.002	0.047	0.120	0.234
25	-0.025	0.031	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.017	0.006	-0.003	0.019	0.019
28	0.016	0.017	-0.113	-0.182	-0.016
29	-0.058	-0.020	-0.002	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.027	-0.004	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027



33	0.007	0.045	0.022	0.017	0.019
34	-0.031	-0.017	-0.004	-0.003	0.019
35	0.007	0.035	0.048	-0.015	0.026
36	-0.028	-0.014	-0.012	-0.025	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.017	0.042
34	0.040	0.010	-0.015	-0.015	0.011
35	-0.023	-0.015	-0.001	0.018	0.013
36	-0.030	0.024	-0.030	-0.015	-0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.041	0.001	-0.040	0.008	0.019
35	0.015	0.017	-0.020	0.027	0.039
36	0.014	0.010	-0.025	0.029	0.053

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.009	-0.051	0.039	0.009	-0.013
35	0.023	0.011	-0.013	-0.024	0.016
36	0.029	0.006	-0.018	0.008	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.015	0.018	-0.057	1.000	
35	-0.055	0.025	-0.025	-0.106	1.000
36	-0.005	0.006	-0.045	0.254	0.111

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	10
200	1.013	36
300	1.009	8
400	1.009	33
500	1.005	3
600	1.005	35
700	1.006	35
800	1.003	35
900	1.001	35
1000	1.000	1

TER - single practice, medical services

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-17.314                      22.156

Posterior Predictive P-Value                      0.490

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.969	0.066	0.000	0.842	1.105	*
CHOICE15	-0.073	0.024	0.001	-0.118	-0.027	*
BULLY15	0.031	0.050	0.278	-0.070	0.127	
DUTIES15	-0.032	0.028	0.130	-0.083	0.024	
PRESS15	-0.032	0.026	0.111	-0.083	0.018	
KES15	0.225	0.044	0.000	0.143	0.314	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.435	-0.014	0.017
CHOICE15	-0.001	0.015	0.456	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.038	0.032	0.110	-0.103	0.021
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Thresholds

PHYCAT16\$1	1.327	0.037	0.000	1.255	1.401	*
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Residual Variances

PHYCAT16	0.018	0.014	0.000	0.002	0.056	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.067	0.022	0.001	-0.109	-0.025	*



BULLY15	0.013	0.021	0.278	-0.030	0.055	
DUTIES15	-0.026	0.023	0.130	-0.068	0.020	
PRESS15	-0.028	0.023	0.111	-0.073	0.016	
KES15	0.107	0.021	0.000	0.067	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.435	-0.025	0.031	
CHOICE15	-0.001	0.014	0.456	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.293	0.229	0.110	-0.732	0.162	
Thresholds PHYCAT16\$1	9.177	4.635	0.000	5.448	22.389	*
Residual Variances PHYCAT16	0.913	0.145	0.000	0.464	1.000	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.087	0.145	0.000	0.000	0.536

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
— 0 —

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
----------	---	---	---	---	---

THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>36</u>

NU	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>

	LAMBDA	
	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	

ALPHA	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<u>0.000</u>	<u>0.000</u>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>1.000</u>	<u>0.116</u>	<u>0.145</u>	<u></u>	<u></u>	
PHYCAT16	0.000	0.116			
PHY15	0.000	0.000			
KES15	0.000	0.000			



CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u></u>
SINGLE	0.000	0.678

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450483D-04				
2	0.998595D-05	0.605001D-04			
3	-0.752290D-05	-0.221258D-04	0.213895D-03		
4	0.337114D-05	0.123666D-04	-0.913114D-05	0.473263D-04	
5	0.114644D-04	0.198139D-04	-0.196295D-04	0.220989D-04	0.197375D-03
6	-0.555296D-05	-0.214199D-04	0.419024D-04	-0.152113D-04	-0.365499D-04
7	-0.329077D-05	0.158817D-05	-0.320685D-04	-0.173640D-04	0.170049D-04
8	0.673180D-05	0.499148D-05	-0.163793D-05	0.158051D-04	0.249790D-04
9	-0.572720D-05	-0.211290D-05	0.612246D-05	-0.729361D-06	-0.160100D-04
10	0.781576D-05	0.129898D-05	-0.326758D-04	-0.538731D-05	-0.180978D-04
11	-0.458095D-05	0.601179D-05	-0.219249D-04	0.285291D-05	0.117486D-04
12	0.149364D-05	-0.235133D-05	-0.109385D-04	0.125306D-05	0.167501D-04
13	0.215631D-07	0.964792D-06	-0.186730D-05	-0.688221D-06	-0.189758D-05
14	0.981123D-06	0.713325D-06	-0.305677D-05	-0.125380D-05	0.377807D-06
15	0.341874D-06	0.144161D-06	-0.302135D-05	0.345039D-06	-0.585443D-06
16	-0.653743D-06	-0.106846D-05	-0.120021D-05	0.617762D-06	-0.266408D-05
17	-0.473365D-06	-0.207409D-05	0.449001D-05	0.339707D-05	0.677675D-05
18	-0.433936D-05	-0.469958D-05	0.464360D-05	-0.749031D-05	-0.278807D-05
19	0.100802D-05	0.723085D-06	-0.135609D-05	0.185001D-06	-0.825691D-06
20	0.283878D-06	-0.268169D-06	-0.428135D-06	-0.380561D-06	-0.160215D-05
21	-0.931907D-06	-0.426580D-07	0.422442D-06	0.300076D-05	0.478702D-05
22	0.153991D-06	0.193309D-05	0.427303D-06	-0.813341D-06	0.189433D-05
23	0.987725D-06	0.782769D-06	0.126280D-05	-0.122476D-06	0.213090D-05

24	0.147080D-05	0.164653D-05	-0.283498D-05	-0.236772D-06	-0.554797D-05
25	0.113580D-06	0.220704D-05	0.875756D-05	0.132535D-05	0.638717D-05
26	0.493497D-06	0.698301D-06	0.452001D-05	-0.202435D-06	0.492749D-05
27	-0.231479D-05	0.497369D-05	0.949911D-05	0.648546D-06	0.395347D-05
28	-0.979132D-06	-0.208164D-05	-0.120063D-05	-0.422598D-06	0.212194D-05
29	-0.124961D-05	-0.866001D-06	0.434086D-05	-0.201235D-06	0.909742D-05
30	-0.153651D-06	0.873511D-06	0.126199D-05	-0.170674D-05	-0.139381D-04
31	-0.990458D-06	0.857852D-06	0.155641D-05	0.636928D-06	0.237273D-05
32	-0.130806D-05	0.506039D-06	0.634028D-05	0.168696D-05	-0.602914D-05
33	-0.129900D-05	-0.376443D-05	-0.331091D-05	-0.112293D-05	-0.592269D-05
34	-0.831808D-05	-0.157708D-05	0.170574D-04	-0.323057D-05	0.785045D-06
35	-0.148480D-05	0.283897D-05	0.865862D-05	0.112721D-05	-0.554501D-05
36	0.385118D-06	0.488868D-05	-0.601296D-05	-0.844859D-05	0.239524D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172652D-03				
7	-0.269291D-04	0.435295D-02			
8	-0.652345D-06	-0.364123D-03	0.190872D-02		
9	0.650816D-06	0.172286D-05	0.120632D-03	0.570875D-03	
10	-0.308833D-05	-0.371203D-04	-0.365035D-03	0.506190D-04	0.244922D-02
11	-0.513867D-05	-0.183424D-04	-0.868597D-04	0.135009D-05	-0.251031D-03
12	0.366281D-05	-0.588228D-04	0.161752D-03	-0.105645D-03	0.124828D-03
13	-0.128990D-05	-0.824949D-05	0.178373D-05	-0.133403D-05	0.115380D-05
14	-0.483020D-06	0.289092D-05	0.105461D-05	-0.138295D-05	0.446937D-05
15	0.557080D-06	-0.162118D-04	-0.192490D-05	0.227180D-05	0.765896D-05
16	0.185876D-05	-0.411042D-04	0.644097D-05	-0.347828D-05	0.979852D-05
17	0.339594D-05	-0.358108D-05	0.110433D-05	0.113587D-05	-0.268804D-05
18	0.391562D-05	-0.203904D-04	-0.215874D-05	0.237065D-05	-0.451572D-04
19	0.810116D-06	0.661638D-06	-0.338982D-05	0.182821D-05	0.795342D-05
20	0.233240D-05	-0.291752D-05	0.226771D-05	0.314893D-05	-0.315479D-05
21	0.419534D-06	-0.150892D-04	-0.1578404D-05	0.158188D-05	0.372811D-05
22	-0.488302D-06	0.508938D-05	-0.667024D-06	0.237357D-05	-0.147783D-04
23	-0.233962D-05	-0.881894D-05	0.395356D-05	-0.583981D-05	0.217268D-04
24	-0.167943D-05	-0.722939D-05	0.523342D-05	0.298376D-05	0.101027D-04
25	-0.221258D-05	-0.257522D-04	0.616983D-05	0.327906D-05	0.144827D-04
26	-0.192857D-06	0.666187D-05	-0.263023D-05	0.507389D-05	-0.273494D-05
27	-0.275757D-05	0.173796D-04	0.861859D-06	-0.927457D-06	-0.177217D-04
28	0.296519D-05	0.649028D-05	-0.925686D-05	-0.592698D-05	-0.899161D-05
29	0.227985D-05	0.173262D-04	-0.130085D-04	-0.474490D-05	-0.448147D-06
30	0.105562D-04	-0.106894D-04	0.488831D-06	-0.139523D-05	-0.215501D-04
31	-0.325700D-05	-0.608710D-05	-0.134032D-05	-0.638682D-05	-0.496273D-05

32	-0.288381D-05	-0.424027D-05	-0.861393D-06	-0.381929D-05	0.276546D-04
33	0.799361D-05	-0.841053D-04	0.202586D-04	0.427293D-05	-0.258392D-04
34	0.641987D-05	-0.426223D-04	0.912734D-04	0.888927D-05	-0.568705D-05
35	-0.359394D-05	0.362921D-04	-0.626235D-05	-0.137963D-04	-0.667439D-05
36	-0.170469D-04	0.810291D-03	0.137377D-03	-0.443950D-06	-0.376871D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.657132D-03				
12	0.130456D-03	0.780698D-03			
13	0.991473D-06	0.429047D-05	0.209801D-04		
14	0.192635D-05	0.189411D-05	0.447108D-05	0.130998D-04	
15	0.427945D-05	0.168538D-05	0.352312D-06	0.528844D-05	0.319506D-04
16	-0.989152D-05	0.395661D-05	-0.391550D-05	-0.438119D-05	0.581485D-06
17	0.260621D-05	0.736921D-05	-0.347517D-05	-0.414857D-05	-0.100646D-04
18	0.114047D-04	-0.290029D-05	0.256113D-05	0.529896D-06	0.119132D-05
19	0.546189D-05	0.402803D-06	0.955824D-06	0.225485D-05	0.445705D-06
20	0.199076D-05	-0.651577D-06	0.239050D-06	0.746679D-06	0.514743D-05
21	0.219174D-06	0.222178D-05	-0.857546D-06	-0.882471D-06	0.697617D-07
22	0.781860D-06	-0.387770D-05	0.786765D-06	0.380612D-06	0.512763D-06
23	-0.315465D-05	0.703319D-05	0.247521D-05	0.392730D-05	0.327794D-06
24	-0.103985D-05	0.574311D-06	0.165309D-05	0.334451D-05	0.101613D-04
25	-0.950514D-05	0.129404D-04	-0.216723D-05	-0.187502D-05	0.246908D-05
26	0.211070D-05	0.291981D-05	0.810764D-06	-0.414294D-06	0.741349D-06
27	0.881229D-05	0.306111D-05	-0.298375D-06	0.135178D-05	0.210108D-05
28	0.245395D-05	0.297682D-05	-0.316308D-05	-0.404340D-05	-0.564126D-06
29	-0.106707D-04	-0.421270D-05	-0.468912D-07	-0.266859D-05	-0.121435D-04
30	-0.123591D-05	-0.243080D-04	0.273124D-05	0.143204D-05	0.293730D-06
31	-0.443194D-05	-0.911362D-06	-0.658227D-06	-0.233458D-06	-0.132713D-05
32	-0.368427D-05	0.856600D-06	-0.448297D-06	-0.128310D-05	-0.190804D-05
33	0.346318D-05	0.207665D-04	0.171427D-05	0.105997D-05	0.185550D-05
34	-0.313952D-04	-0.162038D-05	-0.458992D-05	-0.140874D-06	0.227084D-05
35	0.171435D-05	0.159788D-04	0.268826D-05	-0.532329D-06	0.188875D-05
36	-0.267146D-04	-0.887034D-05	-0.252469D-05	-0.330680D-05	0.238816D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487907D-04				
17	0.116874D-04	0.630617D-04			
18	-0.166706D-04	-0.375824D-04	0.455467D-03		

19	-0.190879D-05	-0.182544D-05	0.262761D-05	0.104677D-04	
20	-0.816672D-06	-0.456344D-05	0.520971D-06	0.301700D-05	0.133088D-04
21	0.304783D-05	0.110283D-04	-0.288216D-04	-0.233354D-05	-0.434916D-05
22	0.845302D-06	-0.337766D-05	-0.199835D-06	0.200462D-05	0.495626D-05
23	-0.285795D-05	0.875973D-07	0.229871D-05	0.498391D-05	0.123816D-05
24	-0.377553D-05	-0.689932D-05	-0.111972D-05	0.978913D-06	0.684280D-05
25	0.870111D-05	0.159848D-04	-0.477303D-04	-0.335325D-05	-0.110033D-05
26	-0.298375D-05	-0.138515D-05	0.432166D-05	0.225653D-05	0.579149D-05
27	-0.611014D-05	-0.439004D-05	0.195153D-04	0.496697D-05	0.711782D-05
28	0.619353D-05	0.382583D-05	-0.404970D-05	-0.351246D-05	-0.126193D-05
29	0.134593D-06	0.123601D-04	-0.327058D-05	-0.155008D-05	-0.502062D-05
30	-0.670272D-05	-0.249395D-04	0.646217D-04	0.186174D-05	0.143869D-05
31	0.943961D-06	0.612876D-05	-0.172044D-05	-0.252659D-05	-0.610864D-05
32	0.551917D-05	0.665837D-05	-0.160289D-04	-0.137022D-05	-0.428470D-05
33	0.443897D-05	-0.113167D-04	0.774141D-05	0.958409D-06	0.261785D-05
34	0.816343D-05	0.542560D-05	-0.519524D-05	-0.187223D-05	0.211789D-06
35	-0.252964D-05	-0.132934D-05	0.377557D-06	0.985287D-06	0.631837D-06
36	-0.792297D-05	0.840750D-05	-0.209723D-04	-0.142712D-05	-0.464678D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478246D-04				
22	-0.602810D-05	0.233627D-04			
23	-0.980389D-06	0.153846D-05	0.461719D-04		
24	-0.347859D-05	0.420650D-05	0.970685D-05	0.590964D-04	
25	0.235119D-04	-0.165990D-05	-0.574802D-05	-0.161957D-04	0.208196D-03
26	-0.462443D-05	0.106548D-04	0.268379D-05	0.129414D-04	-0.794178D-05
27	-0.507643D-05	0.100936D-04	0.146302D-04	0.375310D-04	-0.198683D-04
28	0.671755D-06	-0.177893D-05	-0.912519D-05	-0.159964D-05	-0.772918D-07
29	0.282226D-05	-0.238596D-05	-0.317034D-05	-0.137640D-04	0.414864D-05
30	-0.175181D-04	0.318740D-05	0.345450D-07	0.618203D-05	-0.443959D-04
31	0.824975D-05	-0.792262D-05	-0.265439D-05	-0.586676D-05	0.506366D-05
32	0.435210D-05	-0.447507D-05	-0.584160D-05	-0.203144D-04	0.221359D-04
33	-0.700431D-05	0.537288D-05	0.215166D-05	0.614535D-05	-0.109173D-04
34	-0.110898D-05	-0.788304D-05	-0.682098D-05	-0.120138D-05	0.178445D-04
35	0.183670D-05	0.696680D-06	-0.133947D-05	0.283207D-05	0.863480D-05
36	0.648103D-05	-0.108813D-06	-0.535931D-05	0.697403D-05	0.300773D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475450D-04					
27	0.414793D-04	0.387703D-03				
28	-0.857005D-06	-0.484455D-05	0.375080D-04			
29	-0.194091D-05	-0.877657D-05	0.797043D-05	0.516345D-04		
30	0.462578D-05	0.262721D-04	-0.700250D-05	-0.186025D-04	0.191137D-03	
31	-0.957271D-05	-0.967694D-05	0.279982D-05	0.130459D-04	-0.110213D-04	
32	-0.152157D-04	-0.649086D-04	0.421021D-05	0.198507D-04	-0.194297D-04	
33	0.632250D-05	0.118187D-04	-0.747131D-05	-0.373159D-04	0.567547D-04	
34	0.111443D-05	-0.159845D-04	0.181393D-05	0.251493D-05	-0.784984D-05	
35	0.237773D-05	0.475685D-05	-0.135539D-05	-0.250854D-05	0.353892D-05	
36	0.695575D-05	0.927843D-05	-0.612563D-05	0.221133D-05	-0.768781D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422951D-04				
32	0.239131D-04	0.160898D-03			
33	-0.287871D-04	-0.530652D-04	0.285422D-03		
34	0.219082D-05	0.635677D-06	-0.272681D-04	0.100892D-02	
35	-0.543178D-05	0.385060D-05	-0.587669D-05	-0.315128D-04	0.193568D-03
36	-0.185530D-05	0.125105D-05	-0.257042D-04	0.310565D-03	0.739079D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.137086D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.003	-0.033	-0.038	0.018
8	0.023	0.015	-0.003	0.053	0.041
9	-0.036	-0.011	0.018	-0.004	-0.048
10	0.024	0.003	-0.045	-0.016	-0.026
11	-0.027	0.030	-0.058	0.016	0.033

12	0.008	-0.011	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.029
14	0.040	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.018	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.015	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.039	-0.006	0.037	-0.015	0.002
35	-0.016	0.026	0.043	0.012	-0.028
36	0.002	0.017	-0.011	-0.033	0.046

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.031	1.000			
8	-0.001	-0.126	1.000		
9	0.002	0.001	0.116	1.000	
10	-0.005	-0.011	-0.169	0.043	1.000
11	-0.015	-0.011	-0.078	0.002	-0.198
12	0.010	-0.032	0.133	-0.158	0.090
13	-0.021	-0.027	0.009	-0.012	0.005
14	-0.010	0.012	0.007	-0.016	0.025
15	0.008	-0.043	-0.008	0.017	0.027
16	0.020	-0.089	0.021	-0.021	0.028
17	0.033	-0.007	0.003	0.006	-0.007
18	0.014	-0.014	-0.002	0.005	-0.043
19	0.019	0.003	-0.024	0.024	0.050



20	0.049	-0.012	0.014	0.036	-0.017
21	0.005	-0.033	-0.019	0.010	0.011
22	-0.008	0.016	-0.003	0.021	-0.062
23	-0.026	-0.020	0.013	-0.036	0.065
24	-0.017	-0.014	0.016	0.016	0.027
25	-0.012	-0.027	0.010	0.010	0.020
26	-0.002	0.015	-0.009	0.031	-0.008
27	-0.011	0.013	0.001	-0.002	-0.018
28	0.037	0.016	-0.035	-0.041	-0.030
29	0.024	0.037	-0.041	-0.028	-0.001
30	0.058	-0.012	0.001	-0.004	-0.031
31	-0.038	-0.014	-0.005	-0.041	-0.015
32	-0.017	-0.005	-0.002	-0.013	0.044
33	0.036	-0.075	0.027	0.011	-0.031
34	0.015	-0.020	0.066	0.012	-0.004
35	-0.020	0.040	-0.010	-0.042	-0.010
36	-0.035	0.332	0.085	-0.001	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.182	1.000			
13	0.008	0.034	1.000		
14	0.021	0.019	0.270	1.000	
15	0.030	0.011	0.014	0.258	1.000
16	-0.055	0.020	-0.122	-0.173	0.015
17	0.013	0.033	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.066	0.004	0.064	0.193	0.024
20	0.021	-0.006	0.014	0.057	0.250
21	0.001	0.011	-0.027	-0.035	0.002
22	0.006	-0.029	0.036	0.022	0.019
23	-0.018	0.037	0.080	0.160	0.009
24	-0.005	0.003	0.047	0.120	0.234
25	-0.026	0.032	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.017	0.006	-0.003	0.019	0.019
28	0.016	0.017	-0.113	-0.182	-0.016
29	-0.058	-0.021	-0.001	-0.103	-0.299
30	-0.003	-0.063	0.043	0.029	0.004
31	-0.027	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027

33	0.008	0.044	0.022	0.017	0.019
34	-0.039	-0.002	-0.032	-0.001	0.013
35	0.005	0.041	0.042	-0.011	0.024
36	-0.028	-0.009	-0.015	-0.025	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.192
30	-0.069	-0.227	0.219	0.042	0.029
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.021	0.018	0.042
34	0.037	0.022	-0.008	-0.018	0.002
35	-0.026	-0.012	0.001	0.022	0.012
36	-0.031	0.029	-0.027	-0.012	-0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.005	-0.051	-0.032	-0.005	0.039
35	0.019	0.010	-0.014	0.026	0.043
36	0.025	-0.001	-0.021	0.025	0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.005	-0.026	0.009	0.011	-0.018
35	0.025	0.017	-0.016	-0.025	0.018
36	0.027	0.013	-0.027	0.008	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.011	0.002	-0.051	1.000	
35	-0.060	0.022	-0.025	-0.071	1.000
36	-0.008	0.003	-0.041	0.264	0.143

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	10
200	1.013	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.004	35
700	1.005	35
800	1.002	35
900	1.001	35
1000	1.000	1

BEN - single practice, provision of health benefits

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-17.188                      22.233

Posterior Predictive P-Value                      0.471

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.969	0.066	0.000	0.843	1.107	*
CHOICE15	-0.074	0.024	0.001	-0.119	-0.027	*
BULLY15	0.029	0.050	0.283	-0.071	0.127	
DUTIES15	-0.031	0.028	0.135	-0.082	0.025	
PRESS15	-0.033	0.026	0.106	-0.084	0.017	
KES15	0.226	0.044	0.000	0.144	0.313	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.105	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*



PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.360	-0.010	0.016
KES15	0.001	0.008	0.437	-0.014	0.017
CHOICE15	-0.001	0.015	0.456	-0.030	0.027
BULLY15	0.001	0.007	0.465	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.067	0.037	0.029	-0.142	0.002
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Thresholds

PHYCAT16\$1	1.334	0.035	0.000	1.266	1.406	*
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Residual Variances

PHYCAT16	0.015	0.013	0.000	0.001	0.051	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.068	0.022	0.001	-0.109	-0.025	*

BULLY15	0.013	0.021	0.283	-0.031	0.054	
DUTIES15	-0.025	0.023	0.135	-0.068	0.021	
PRESS15	-0.029	0.023	0.106	-0.074	0.015	
KES15	0.107	0.021	0.000	0.068	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.360	-0.022	0.033	
KES15	0.002	0.014	0.437	-0.025	0.031	
CHOICE15	-0.001	0.014	0.456	-0.029	0.026	
BULLY15	0.001	0.014	0.465	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.460	0.234	0.029	-0.889	0.016	
Thresholds PHYCAT16\$1	9.286	4.301	0.000	5.518	21.638	*
Residual Variances PHYCAT16	0.788	0.217	0.000	0.210	0.998	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.212	0.217	0.000	0.002	0.790

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
— 0 —

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>          </u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>          </u>
36

NU	
PHYCAT16	SINGLE
<u>          </u>	<u>          </u>
0	0

	LAMBDA	
	PHYCAT16	SINGLE
PHYCAT16	<u>          </u>	<u>          </u>
SINGLE	0	0
	0	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000



ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.347

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450356D-04				
2	0.998517D-05	0.605033D-04			
3	-0.751324D-05	-0.221276D-04	0.213901D-03		
4	0.337125D-05	0.123662D-04	-0.912898D-05	0.473263D-04	
5	0.114562D-04	0.198087D-04	-0.196182D-04	0.221004D-04	0.197366D-03
6	-0.554239D-05	-0.214173D-04	0.418987D-04	-0.152094D-04	-0.365405D-04
7	-0.347468D-05	0.198247D-05	-0.319701D-04	-0.171714D-04	0.157388D-04
8	0.702896D-05	0.486301D-05	-0.229896D-05	0.155033D-04	0.254234D-04
9	-0.568503D-05	-0.211399D-05	0.628642D-05	-0.772050D-06	-0.162190D-04
10	0.767042D-05	0.129243D-05	-0.319923D-04	-0.555410D-05	-0.184088D-04
11	-0.463538D-05	0.602817D-05	-0.217011D-04	0.311939D-05	0.115829D-04
12	0.157207D-05	-0.250432D-05	-0.111359D-04	0.126995D-05	0.173098D-04
13	0.201577D-07	0.966451D-06	-0.186130D-05	-0.687565D-06	-0.190090D-05
14	0.983910D-06	0.716638D-06	-0.305414D-05	-0.125218D-05	0.378257D-06
15	0.350732D-06	0.151319D-06	-0.302336D-05	0.347762D-06	-0.584652D-06
16	-0.650305D-06	-0.107652D-05	-0.120190D-05	0.612177D-06	-0.266585D-05
17	-0.469665D-06	-0.207780D-05	0.447977D-05	0.339519D-05	0.678161D-05
18	-0.435176D-05	-0.469703D-05	0.465510D-05	-0.748534D-05	-0.279092D-05
19	0.100975D-05	0.724332D-06	-0.135651D-05	0.184395D-06	-0.827932D-06
20	0.286579D-06	-0.266718D-06	-0.428862D-06	-0.380132D-06	-0.160297D-05
21	-0.927959D-06	-0.415804D-07	0.420266D-06	0.299985D-05	0.478998D-05
22	0.152617D-06	0.193213D-05	0.431435D-06	-0.813967D-06	0.189157D-05
23	0.988582D-06	0.782770D-06	0.127253D-05	-0.118910D-06	0.212087D-05

24	0.147028D-05	0.164542D-05	-0.283044D-05	-0.235244D-06	-0.555080D-05
25	0.125028D-06	0.221014D-05	0.875089D-05	0.132480D-05	0.640114D-05
26	0.491191D-06	0.696407D-06	0.452113D-05	-0.203602D-06	0.492463D-05
27	-0.232317D-05	0.496524D-05	0.949885D-05	0.648730D-06	0.393795D-05
28	-0.980234D-06	-0.208490D-05	-0.119630D-05	-0.426381D-06	0.213226D-05
29	-0.125372D-05	-0.870119D-06	0.434172D-05	-0.204473D-06	0.910069D-05
30	-0.158029D-06	0.875988D-06	0.126203D-05	-0.170426D-05	-0.139463D-04
31	-0.994158D-06	0.856578D-06	0.155634D-05	0.636500D-06	0.237426D-05
32	-0.130977D-05	0.507662D-06	0.634240D-05	0.168478D-05	-0.602201D-05
33	-0.129623D-05	-0.375986D-05	-0.331996D-05	-0.112046D-05	-0.592066D-05
34	-0.869020D-05	0.213526D-06	0.171325D-04	-0.621172D-05	-0.996399D-05
35	-0.895431D-06	0.237660D-05	0.874845D-05	0.110759D-05	-0.524275D-05
36	0.185012D-05	0.440249D-05	-0.680935D-05	-0.906417D-05	0.218803D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172640D-03				
7	-0.259241D-04	0.434164D-02			
8	-0.673596D-06	-0.365805D-03	0.189939D-02		
9	0.605356D-06	0.380365D-05	0.118751D-03	0.568217D-03	
10	-0.315283D-05	-0.309914D-04	-0.363985D-03	0.495360D-04	0.245061D-02
11	-0.504229D-05	-0.190390D-04	-0.840925D-04	0.314024D-05	-0.250446D-03
12	0.348304D-05	-0.573390D-04	0.161933D-03	-0.105651D-03	0.126118D-03
13	-0.129438D-05	-0.817240D-05	0.175420D-05	-0.129290D-05	0.136785D-05
14	-0.485283D-06	0.320766D-05	0.114714D-05	-0.142270D-05	0.436066D-05
15	0.555530D-06	-0.160967D-04	-0.180450D-05	0.233925D-05	0.749354D-05
16	0.186761D-05	-0.415368D-04	0.628162D-05	-0.348815D-05	0.986181D-05
17	0.339664D-05	-0.318149D-05	0.898067D-06	0.927606D-06	-0.254036D-05
18	0.391205D-05	-0.163908D-04	-0.230631D-05	0.190500D-05	-0.449817D-04
19	0.810720D-06	0.523145D-06	-0.340806D-05	0.186181D-05	0.789090D-05
20	0.233209D-05	-0.346014D-05	0.221056D-05	0.322617D-05	-0.316529D-05
21	0.419987D-06	-0.151183D-04	-0.584945D-05	0.169532D-05	0.394365D-05
22	-0.489772D-06	0.435783D-05	-0.467812D-06	0.261389D-05	-0.149284D-04
23	-0.233218D-05	-0.789902D-05	0.418628D-05	-0.571337D-05	0.219873D-04
24	-0.167590D-05	-0.700098D-05	0.524528D-05	0.324190D-05	0.103149D-04
25	-0.222631D-05	-0.250170D-04	0.599733D-05	0.340429D-05	0.147019D-04
26	-0.193712D-06	0.635016D-05	-0.236985D-05	0.513990D-05	-0.286935D-05
27	-0.275156D-05	0.167719D-04	0.136541D-05	-0.591927D-06	-0.173477D-04
28	0.296171D-05	0.621035D-05	-0.940188D-05	-0.592387D-05	-0.903454D-05
29	0.228197D-05	0.176045D-04	-0.129536D-04	-0.487748D-05	-0.556317D-06
30	0.105549D-04	-0.116029D-04	0.211902D-06	-0.146067D-05	-0.215338D-04
31	-0.325366D-05	-0.588100D-05	-0.129572D-05	-0.645025D-05	-0.509659D-05

32	-0.288304D-05	-0.524524D-05	-0.144445D-05	-0.369315D-05	0.274685D-04
33	0.799575D-05	-0.805149D-04	0.212186D-04	0.372506D-05	-0.263767D-04
34	0.384202D-05	-0.668601D-04	0.644777D-04	0.149993D-04	-0.389097D-04
35	-0.324761D-05	0.287215D-04	-0.693501D-05	-0.799268D-05	-0.568654D-05
36	-0.173246D-04	0.816417D-03	0.104041D-03	-0.573953D-05	-0.376754D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.655815D-03				
12	0.129407D-03	0.778029D-03			
13	0.995712D-06	0.423901D-05	0.209819D-04		
14	0.184863D-05	0.193552D-05	0.447115D-05	0.130996D-04	
15	0.419577D-05	0.166484D-05	0.355184D-06	0.528983D-05	0.319532D-04
16	-0.980105D-05	0.398486D-05	-0.391611D-05	-0.437911D-05	0.582724D-06
17	0.294909D-05	0.738045D-05	-0.347729D-05	-0.414882D-05	-0.100645D-04
18	0.115044D-04	-0.258787D-05	0.257103D-05	0.537872D-06	0.118965D-05
19	0.542083D-05	0.427040D-06	0.954280D-06	0.225345D-05	0.444234D-06
20	0.197191D-05	-0.747316D-06	0.239567D-06	0.745617D-06	0.514649D-05
21	0.226225D-06	0.222423D-05	-0.858509D-06	-0.884631D-06	0.683962D-07
22	0.589055D-06	-0.403182D-05	0.786765D-06	0.379709D-06	0.511912D-06
23	-0.341849D-05	0.701046D-05	0.246976D-05	0.392453D-05	0.323809D-06
24	-0.111417D-05	0.506661D-06	0.165493D-05	0.334446D-05	0.101614D-04
25	-0.931971D-05	0.126976D-04	-0.216012D-05	-0.188165D-05	0.246420D-05
26	0.199880D-05	0.290716D-05	0.810533D-06	-0.414858D-06	0.740903D-06
27	0.878727D-05	0.334914D-05	-0.297611D-06	0.135820D-05	0.210297D-05
28	0.265268D-05	0.296998D-05	-0.316042D-05	-0.403879D-05	-0.560209D-06
29	-0.105358D-04	-0.408290D-05	-0.447991D-07	-0.266647D-05	-0.121425D-04
30	-0.118550D-05	-0.241560D-04	0.273063D-05	0.143073D-05	0.290362D-06
31	-0.430788D-05	-0.774219D-06	-0.658552D-06	-0.232844D-06	-0.132550D-05
32	-0.353174D-05	0.823878D-06	-0.446516D-06	-0.127933D-05	-0.190276D-05
33	0.339172D-05	0.212929D-04	0.171087D-05	0.105553D-05	0.185095D-05
34	-0.125711D-04	0.648577D-05	-0.637050D-05	-0.143679D-05	0.448151D-06
35	0.149782D-05	0.119918D-04	0.256723D-05	-0.933371D-06	0.178150D-05
36	-0.199823D-04	-0.131638D-04	-0.169299D-05	-0.259798D-05	0.288995D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.487757D-04				
17	0.116801D-04	0.630580D-04			
18	-0.166627D-04	-0.375755D-04	0.455460D-03		

19	-0.190679D-05	-0.182416D-05	0.262837D-05	0.104667D-04	
20	-0.815677D-06	-0.456295D-05	0.521462D-06	0.301653D-05	0.133087D-04
21	0.304717D-05	0.110297D-04	-0.288189D-04	-0.233356D-05	-0.434974D-05
22	0.846382D-06	-0.337719D-05	-0.200713D-06	0.200438D-05	0.495658D-05
23	-0.285554D-05	0.878342D-07	0.229614D-05	0.498324D-05	0.123673D-05
24	-0.377557D-05	-0.689963D-05	-0.112318D-05	0.980356D-06	0.684244D-05
25	0.869637D-05	0.159889D-04	-0.477297D-04	-0.335537D-05	-0.110195D-05
26	-0.298210D-05	-0.138564D-05	0.431935D-05	0.225650D-05	0.579147D-05
27	-0.610554D-05	-0.439327D-05	0.195021D-04	0.497006D-05	0.712042D-05
28	0.618691D-05	0.382389D-05	-0.404196D-05	-0.351057D-05	-0.126114D-05
29	0.125439D-06	0.123566D-04	-0.326112D-05	-0.154817D-05	-0.501953D-05
30	-0.668599D-05	-0.249335D-04	0.646051D-04	0.186121D-05	0.143726D-05
31	0.941326D-06	0.612730D-05	-0.171631D-05	-0.252658D-05	-0.610893D-05
32	0.551567D-05	0.665563D-05	-0.160207D-04	-0.137252D-05	-0.428540D-05
33	0.444594D-05	-0.113154D-04	0.773480D-05	0.953229D-06	0.261447D-05
34	0.235056D-05	0.621969D-05	-0.200631D-04	-0.422072D-07	0.679636D-05
35	-0.225169D-05	-0.827691D-06	-0.375258D-06	0.101629D-05	0.867851D-06
36	-0.996366D-05	0.634295D-05	-0.215344D-04	-0.108946D-05	-0.455561D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478244D-04				
22	-0.602832D-05	0.233632D-04			
23	-0.981190D-06	0.153736D-05	0.461631D-04		
24	-0.347860D-05	0.420589D-05	0.970337D-05	0.590945D-04	
25	0.235114D-04	-0.165886D-05	-0.575029D-05	-0.162008D-04	0.208207D-03
26	-0.462301D-05	0.106554D-04	0.267952D-05	0.129399D-04	-0.794007D-05
27	-0.507583D-05	0.100935D-04	0.146264D-04	0.375332D-04	-0.198728D-04
28	0.675588D-06	-0.178107D-05	-0.911709D-05	-0.159725D-05	-0.734902D-07
29	0.282335D-05	-0.238601D-05	-0.316196D-05	-0.137598D-04	0.415229D-05
30	-0.175182D-04	0.318776D-05	0.223781D-07	0.617246D-05	-0.443924D-04
31	0.825060D-05	-0.792388D-05	-0.265307D-05	-0.586648D-05	0.506448D-05
32	0.435501D-05	-0.447637D-05	-0.583534D-05	-0.203125D-04	0.221378D-04
33	-0.700610D-05	0.537413D-05	0.213276D-05	0.613634D-05	-0.109181D-04
34	-0.256795D-06	0.745747D-06	-0.883025D-05	-0.133973D-05	0.242161D-04
35	0.237409D-05	0.662692D-06	-0.136879D-05	0.278912D-05	0.807416D-05
36	0.643139D-05	0.199874D-05	-0.241670D-05	0.778226D-05	0.282804D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475445D-04					
27	0.414791D-04	0.387693D-03				
28	-0.854060D-06	-0.483881D-05	0.374965D-04			
29	-0.193906D-05	-0.877488D-05	0.796240D-05	0.516292D-04		
30	0.462065D-05	0.262708D-04	-0.699363D-05	-0.185946D-04	0.191125D-03	
31	-0.957344D-05	-0.967859D-05	0.279887D-05	0.130442D-04	-0.110188D-04	
32	-0.152155D-04	-0.649063D-04	0.420529D-05	0.198456D-04	-0.194223D-04	
33	0.632187D-05	0.118249D-04	-0.745736D-05	-0.373104D-04	0.567477D-04	
34	0.162854D-06	-0.245718D-04	0.856243D-05	0.638263D-06	-0.254696D-04	
35	0.193978D-05	0.400857D-05	-0.651822D-06	-0.223209D-05	0.208916D-05	
36	0.735403D-05	0.145353D-04	-0.634735D-05	0.139938D-05	-0.741817D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422974D-04				
32	0.239161D-04	0.160898D-03			
33	-0.287872D-04	-0.530656D-04	0.285423D-03		
34	-0.126529D-05	0.220108D-05	-0.363535D-04	0.137798D-02	
35	-0.541696D-05	0.333295D-05	-0.351570D-05	-0.359254D-04	0.173017D-03
36	-0.374918D-05	-0.146289D-05	-0.172536D-04	0.556216D-04	0.851503D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.122540D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.095	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.008	0.004	-0.033	-0.038	0.017
8	0.024	0.014	-0.004	0.052	0.042
9	-0.036	-0.011	0.018	-0.005	-0.048
10	0.023	0.003	-0.044	-0.016	-0.026
11	-0.027	0.030	-0.058	0.018	0.032



12	0.008	-0.012	-0.027	0.007	0.044
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.047	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.018	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.035	0.001	0.032	-0.024	-0.019
35	-0.010	0.023	0.045	0.012	-0.028
36	0.008	0.016	-0.013	-0.038	0.044

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.030	1.000			
8	-0.001	-0.127	1.000		
9	0.002	0.002	0.114	1.000	
10	-0.005	-0.010	-0.169	0.042	1.000
11	-0.015	-0.011	-0.075	0.005	-0.198
12	0.010	-0.031	0.133	-0.159	0.091
13	-0.022	-0.027	0.009	-0.012	0.006
14	-0.010	0.013	0.007	-0.016	0.024
15	0.007	-0.043	-0.007	0.017	0.027
16	0.020	-0.090	0.021	-0.021	0.029
17	0.033	-0.006	0.003	0.005	-0.006
18	0.014	-0.012	-0.002	0.004	-0.043
19	0.019	0.002	-0.024	0.024	0.049

20	0.049	-0.014	0.014	0.037	-0.018
21	0.005	-0.033	-0.019	0.010	0.012
22	-0.008	0.014	-0.002	0.023	-0.062
23	-0.026	-0.018	0.014	-0.035	0.065
24	-0.017	-0.014	0.016	0.018	0.027
25	-0.012	-0.026	0.010	0.010	0.021
26	-0.002	0.014	-0.008	0.031	-0.008
27	-0.011	0.013	0.002	-0.001	-0.018
28	0.037	0.015	-0.035	-0.041	-0.030
29	0.024	0.037	-0.041	-0.028	-0.002
30	0.058	-0.013	0.000	-0.004	-0.031
31	-0.038	-0.014	-0.005	-0.042	-0.016
32	-0.017	-0.006	-0.003	-0.012	0.044
33	0.036	-0.072	0.029	0.009	-0.032
34	0.008	-0.027	0.040	0.017	-0.021
35	-0.019	0.033	-0.012	-0.025	-0.009
36	-0.038	0.354	0.068	-0.007	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.008	0.033	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.011	0.014	0.259	1.000
16	-0.055	0.020	-0.122	-0.173	0.015
17	0.015	0.033	-0.096	-0.144	-0.224
18	0.021	-0.004	0.026	0.007	0.010
19	0.065	0.005	0.064	0.192	0.024
20	0.021	-0.007	0.014	0.056	0.250
21	0.001	0.012	-0.027	-0.035	0.002
22	0.005	-0.030	0.036	0.022	0.019
23	-0.020	0.037	0.079	0.160	0.008
24	-0.006	0.002	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.011	0.015	0.026	-0.017	0.019
27	0.017	0.006	-0.003	0.019	0.019
28	0.017	0.017	-0.113	-0.182	-0.016
29	-0.057	-0.020	-0.001	-0.103	-0.299
30	-0.003	-0.063	0.043	0.029	0.004
31	-0.026	-0.004	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027

33	0.008	0.045	0.022	0.017	0.019
34	-0.013	0.006	-0.037	-0.011	0.002
35	0.004	0.033	0.043	-0.020	0.024
36	-0.022	-0.013	-0.011	-0.021	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.084	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.002	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.021	0.017	0.042
34	0.009	0.021	-0.025	0.000	0.050
35	-0.025	-0.008	-0.001	0.024	0.018
36	-0.041	0.023	-0.029	-0.010	-0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.001	0.004	-0.035	-0.005	0.045
35	0.026	0.010	-0.015	0.028	0.043
36	0.027	0.012	-0.010	0.029	0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.048	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.001	-0.034	0.038	0.002	-0.050
35	0.021	0.015	-0.008	-0.024	0.011
36	0.030	0.021	-0.030	0.006	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	-0.005	0.005	-0.058	1.000	
35	-0.063	0.020	-0.016	-0.074	1.000
36	-0.016	-0.003	-0.029	0.043	0.185

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.011	10
200	1.020	36
300	1.009	8
400	1.009	33
500	1.005	3
600	1.006	35
700	1.008	35
800	1.004	35
900	1.002	35
1000	1.000	36

HPR - single practice, health promotion

SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

```

PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

```

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between



the Observed and the Replicated Chi-Square Values

-17.314                      22.889

Posterior Predictive P-Value                      0.464

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.969	0.066	0.000	0.843	1.105	*
CHOICE15	-0.071	0.024	0.002	-0.117	-0.024	*
BULLY15	0.030	0.050	0.278	-0.070	0.127	
DUTIES15	-0.031	0.028	0.134	-0.082	0.024	
PRESS15	-0.034	0.026	0.102	-0.085	0.017	
KES15	0.227	0.044	0.000	0.145	0.315	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.436	-0.014	0.017
CHOICE15	-0.001	0.015	0.456	-0.030	0.027
BULLY15	0.001	0.007	0.465	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.082	0.034	0.008	-0.152	-0.017	*
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Thresholds

PHYCAT16\$1	1.317	0.035	0.000	1.247	1.390	*
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Residual Variances

PHYCAT16	0.014	0.013	0.000	0.001	0.050	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.370	0.460	*
CHOICE15	-0.065	0.022	0.002	-0.107	-0.022	*

BULLY15	0.013	0.021	0.278	-0.030	0.055	
DUTIES15	-0.026	0.023	0.134	-0.068	0.021	
PRESS15	-0.030	0.023	0.102	-0.074	0.015	
KES15	0.108	0.021	0.000	0.069	0.149	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.194	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.436	-0.025	0.031	
CHOICE15	-0.001	0.014	0.456	-0.029	0.026	
BULLY15	0.001	0.014	0.465	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.587	0.209	0.008	-0.930	-0.125	*
Thresholds PHYCAT16\$1	8.817	3.835	0.000	5.268	19.591	*
Residual Variances PHYCAT16	0.656	0.227	0.000	0.135	0.982	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.344	0.227	0.000	0.018	0.865

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>36</u>

NU	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>

LAMBDA	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>
SINGLE	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>



0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.426

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450451D-04				
2	0.998422D-05	0.604989D-04			
3	-0.752769D-05	-0.221327D-04	0.213909D-03		
4	0.337189D-05	0.123654D-04	-0.913368D-05	0.473256D-04	
5	0.114650D-04	0.198159D-04	-0.196288D-04	0.221014D-04	0.197380D-03
6	-0.554248D-05	-0.214161D-04	0.419017D-04	-0.152116D-04	-0.365554D-04
7	-0.347287D-05	0.107438D-05	-0.309618D-04	-0.163496D-04	0.166285D-04
8	0.703269D-05	0.473492D-05	-0.274423D-05	0.155882D-04	0.254391D-04
9	-0.564901D-05	-0.218085D-05	0.601459D-05	-0.872613D-06	-0.161606D-04
10	0.765745D-05	0.118776D-05	-0.321899D-04	-0.540953D-05	-0.187354D-04
11	-0.457275D-05	0.621518D-05	-0.214157D-04	0.298548D-05	0.117769D-04
12	0.154446D-05	-0.255317D-05	-0.109623D-04	0.108716D-05	0.169303D-04
13	0.221601D-07	0.968313D-06	-0.186648D-05	-0.685654D-06	-0.190236D-05
14	0.988102D-06	0.720916D-06	-0.305947D-05	-0.125283D-05	0.376853D-06
15	0.351997D-06	0.155342D-06	-0.302337D-05	0.347081D-06	-0.584779D-06
16	-0.662862D-06	-0.107865D-05	-0.120178D-05	0.614532D-06	-0.267832D-05
17	-0.474201D-06	-0.207651D-05	0.448104D-05	0.339707D-05	0.677276D-05
18	-0.432333D-05	-0.469091D-05	0.463894D-05	-0.748447D-05	-0.279066D-05
19	0.101053D-05	0.722575D-05	-0.135800D-05	0.185278D-06	-0.830558D-06
20	0.284173D-06	-0.268186D-06	-0.426436D-06	-0.380709D-06	-0.160420D-05
21	-0.931938D-06	-0.409251D-07	0.422468D-06	0.300105D-05	0.478723D-05
22	0.153441D-06	0.193195D-05	0.429698D-06	-0.814141D-06	0.189376D-05
23	0.991452D-06	0.787503D-06	0.127359D-05	-0.121938D-06	0.212716D-05

24	0.147629D-05	0.165165D-05	-0.283592D-05	-0.235894D-06	-0.553961D-05
25	0.116066D-06	0.221085D-05	0.875131D-05	0.132740D-05	0.640709D-05
26	0.498082D-06	0.699415D-06	0.451526D-05	-0.203892D-06	0.492985D-05
27	-0.230257D-05	0.496955D-05	0.948727D-05	0.645652D-06	0.393054D-05
28	-0.986592D-06	-0.208697D-05	-0.120337D-05	-0.426613D-06	0.211991D-05
29	-0.125522D-05	-0.873271D-06	0.433951D-05	-0.204044D-06	0.909292D-05
30	-0.140462D-06	0.883560D-06	0.125517D-05	-0.170252D-05	-0.139340D-04
31	-0.995889D-06	0.857146D-06	0.155857D-05	0.635531D-06	0.236885D-05
32	-0.131095D-05	0.506966D-06	0.634012D-05	0.168807D-05	-0.602914D-05
33	-0.128070D-05	-0.374645D-05	-0.331968D-05	-0.111883D-05	-0.591307D-05
34	-0.672956D-05	0.315959D-05	-0.353163D-05	-0.680071D-05	0.365879D-05
35	-0.411488D-06	0.245690D-05	0.722669D-05	0.483944D-07	-0.492777D-05
36	0.474790D-06	0.477087D-05	-0.895388D-05	-0.959981D-05	0.238436D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172646D-03				
7	-0.252301D-04	0.434993D-02			
8	-0.785254D-06	-0.362820D-03	0.190393D-02		
9	0.753344D-06	0.620376D-05	0.119097D-03	0.569778D-03	
10	-0.263969D-05	-0.270518D-04	-0.363530D-03	0.522449D-04	0.245610D-02
11	-0.531636D-05	-0.209755D-04	-0.875060D-04	0.200144D-05	-0.252698D-03
12	0.359427D-05	-0.552864D-04	0.161066D-03	-0.106732D-03	0.124837D-03
13	-0.128389D-05	-0.805124D-05	0.157004D-05	-0.142180D-05	0.122662D-05
14	-0.485406D-06	0.293421D-05	0.109166D-05	-0.133015D-05	0.440161D-05
15	0.550466D-06	-0.167918D-04	-0.186240D-05	0.243099D-05	0.757486D-05
16	0.185360D-05	-0.420477D-04	0.602418D-05	-0.367739D-05	0.979940D-05
17	0.339479D-05	-0.288158D-05	0.699514D-06	0.762036D-06	-0.230087D-05
18	0.391547D-05	-0.153172D-04	-0.120511D-05	0.244077D-05	-0.451594D-04
19	0.816996D-06	0.471436D-06	-0.344230D-05	0.185086D-05	0.792620D-05
20	0.233574D-05	-0.348868D-05	0.213523D-05	0.311032D-05	-0.312489D-05
21	0.418937D-06	-0.147294D-04	-0.583605D-05	0.151747D-05	0.397496D-05
22	-0.488733D-06	0.426149D-05	-0.533859D-06	0.255975D-05	-0.149380D-04
23	-0.233540D-05	-0.813085D-05	0.427895D-05	-0.555125D-05	0.219726D-04
24	-0.168306D-05	-0.762183D-05	0.513171D-05	0.321476D-05	0.101957D-04
25	-0.221627D-05	-0.236841D-04	0.560284D-05	0.272925D-05	0.143856D-04
26	-0.197870D-06	0.588188D-05	-0.239097D-05	0.509514D-05	-0.278752D-05
27	-0.276776D-05	0.189341D-04	0.146865D-05	-0.510182D-06	-0.169213D-04
28	0.296136D-05	0.670293D-05	-0.946412D-05	-0.607133D-05	-0.892989D-05
29	0.228314D-05	0.184568D-04	-0.129897D-04	-0.490793D-05	-0.362191D-06
30	0.105574D-04	-0.126385D-04	0.649879D-06	-0.893075D-06	-0.215109D-04
31	-0.325521D-05	-0.612929D-05	-0.120103D-05	-0.630530D-05	-0.502018D-05

32	-0.288426D-05	-0.367545D-05	-0.127921D-05	-0.393481D-05	0.276827D-04
33	0.799107D-05	-0.824200D-04	0.222798D-04	0.456109D-05	-0.263926D-04
34	-0.305879D-05	-0.979823D-04	0.832650D-06	-0.253155D-04	-0.549828D-05
35	-0.390928D-05	0.206375D-04	-0.130997D-04	-0.133765D-04	-0.610975D-05
36	-0.189670D-04	0.798864D-03	0.104243D-03	-0.170249D-04	-0.378184D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.659476D-03				
12	0.129965D-03	0.781026D-03			
13	0.113546D-05	0.421998D-05	0.209829D-04		
14	0.183503D-05	0.189536D-05	0.447048D-05	0.130998D-04	
15	0.421423D-05	0.163131D-05	0.351306D-06	0.529040D-05	0.319567D-04
16	-0.970328D-05	0.400729D-05	-0.391687D-05	-0.437983D-05	0.580466D-06
17	0.283270D-05	0.741489D-05	-0.347589D-05	-0.414733D-05	-0.100681D-04
18	0.109129D-04	-0.281746D-05	0.256330D-05	0.536559D-06	0.119591D-05
19	0.539372D-05	0.389550D-06	0.953816D-06	0.225458D-05	0.446530D-06
20	0.201919D-05	-0.693123D-06	0.237220D-06	0.746110D-06	0.514885D-05
21	0.344296D-06	0.216966D-05	-0.852931D-06	-0.883692D-06	0.681735D-07
22	0.688295D-06	-0.391199D-05	0.787906D-06	0.381911D-06	0.514177D-06
23	-0.336136D-05	0.702589D-05	0.247443D-05	0.392725D-05	0.328465D-06
24	-0.895618D-06	0.518533D-06	0.165512D-05	0.334578D-05	0.101659D-04
25	-0.888828D-05	0.127143D-04	-0.215668D-05	-0.187395D-05	0.246937D-05
26	0.211280D-05	0.296102D-05	0.811910D-06	-0.412326D-06	0.743819D-06
27	0.863643D-05	0.332650D-05	-0.293373D-06	0.135881D-05	0.210222D-05
28	0.260343D-05	0.314541D-05	-0.315849D-05	-0.404064D-05	-0.561805D-06
29	-0.107804D-04	-0.409611D-05	-0.455413D-07	-0.267059D-05	-0.121478D-04
30	-0.147866D-05	-0.243405D-04	0.272849D-05	0.143487D-05	0.296317D-06
31	-0.451654D-05	-0.798751D-06	-0.655828D-06	-0.232430D-06	-0.132698D-05
32	-0.363746D-05	0.828945D-06	-0.444552D-06	-0.128006D-05	-0.190517D-05
33	0.304798D-05	0.209259D-04	0.170526D-05	0.106079D-05	0.185904D-05
34	-0.168837D-04	-0.110765D-04	0.342606D-06	-0.108200D-05	0.198033D-05
35	0.682255D-05	0.132669D-04	0.265086D-05	-0.800782D-06	0.200809D-05
36	-0.248935D-04	-0.161450D-04	-0.135403D-05	-0.257096D-05	0.292845D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487876D-04				
17	0.116862D-04	0.630619D-04			
18	-0.166563D-04	-0.375809D-04	0.455407D-03		

19	-0.191101D-05	-0.182680D-05	0.263383D-05	0.104694D-04	
20	-0.816413D-06	-0.456307D-05	0.521100D-06	0.301792D-05	0.133087D-04
21	0.304804D-05	0.110324D-04	-0.288208D-04	-0.233483D-05	-0.434989D-05
22	0.845295D-06	-0.337751D-05	-0.198326D-06	0.200336D-05	0.495580D-05
23	-0.285410D-05	0.882690D-07	0.229063D-05	0.498700D-05	0.124126D-05
24	-0.377743D-05	-0.690373D-05	-0.111129D-05	0.980421D-06	0.684447D-05
25	0.868989D-05	0.159926D-04	-0.477126D-04	-0.335568D-05	-0.110584D-05
26	-0.298261D-05	-0.138769D-05	0.431095D-05	0.225469D-05	0.579226D-05
27	-0.611234D-05	-0.440165D-05	0.194996D-04	0.496805D-05	0.712090D-05
28	0.618983D-05	0.382396D-05	-0.403331D-05	-0.351030D-05	-0.125966D-05
29	0.132446D-06	0.123626D-04	-0.326383D-05	-0.154987D-05	-0.502014D-05
30	-0.669349D-05	-0.249398D-04	0.646027D-04	0.186580D-05	0.143798D-05
31	0.946579D-06	0.612977D-05	-0.171961D-05	-0.252699D-05	-0.610832D-05
32	0.551719D-05	0.666163D-05	-0.160306D-04	-0.137415D-05	-0.428745D-05
33	0.444297D-05	-0.113250D-04	0.775239D-05	0.956833D-06	0.261636D-05
34	0.718232D-05	0.110576D-05	-0.562102D-05	-0.926544D-06	0.254702D-05
35	-0.167250D-05	-0.207969D-05	0.447130D-06	0.782351D-06	0.540837D-06
36	-0.839220D-05	0.627561D-05	-0.228784D-04	-0.133863D-05	-0.419204D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478267D-04				
22	-0.602902D-05	0.233624D-04			
23	-0.983926D-06	0.153748D-05	0.461685D-04		
24	-0.348042D-05	0.420588D-05	0.970630D-05	0.591010D-04	
25	0.235140D-04	-0.166133D-05	-0.574122D-05	-0.162031D-04	0.208192D-03
26	-0.462373D-05	0.106557D-04	0.268489D-05	0.129447D-04	-0.794269D-05
27	-0.508381D-05	0.100931D-04	0.146202D-04	0.375319D-04	-0.198622D-04
28	0.674468D-06	-0.178096D-05	-0.911847D-05	-0.159955D-05	-0.852685D-07
29	0.282423D-05	-0.238664D-05	-0.316738D-05	-0.137659D-04	0.414594D-05
30	-0.175214D-04	0.318994D-05	0.323993D-07	0.618142D-05	-0.443912D-04
31	0.825226D-05	-0.792332D-05	-0.265440D-05	-0.586724D-05	0.506483D-05
32	0.436083D-05	-0.447697D-05	-0.583868D-05	-0.203179D-04	0.221411D-04
33	-0.701376D-05	0.537553D-05	0.214522D-05	0.614771D-05	-0.109245D-04
34	-0.299908D-07	-0.363531D-05	-0.599877D-05	0.422242D-05	0.131868D-04
35	0.264575D-05	0.568990D-06	-0.118777D-05	0.262536D-05	0.757310D-05
36	0.605449D-05	0.124305D-05	-0.349190D-05	0.888563D-05	0.289120D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30



26	0.475476D-04					
27	0.414828D-04	0.387689D-03				
28	-0.858504D-06	-0.484008D-05	0.374999D-04			
29	-0.194370D-05	-0.877788D-05	0.796583D-05	0.516366D-04		
30	0.462435D-05	0.262781D-04	-0.700302D-05	-0.186074D-04	0.191134D-03	
31	-0.957460D-05	-0.967864D-05	0.280332D-05	0.130482D-04	-0.110268D-04	
32	-0.152234D-04	-0.649088D-04	0.421106D-05	0.198526D-04	-0.194378D-04	
33	0.632938D-05	0.118417D-04	-0.746809D-05	-0.373212D-04	0.567709D-04	
34	0.130319D-06	-0.179260D-04	0.393511D-05	0.218334D-05	-0.116979D-04	
35	0.157222D-05	0.370192D-05	-0.401130D-06	-0.198229D-05	0.232789D-05	
36	0.725620D-05	0.133989D-04	-0.555379D-05	0.250830D-05	-0.110543D-04	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422984D-04				
32	0.239194D-04	0.160908D-03			
33	-0.287941D-04	-0.530905D-04	0.285446D-03		
34	0.190306D-05	-0.823030D-05	-0.278711D-04	0.118564D-02	
35	-0.468429D-05	0.356880D-05	-0.288320D-05	-0.535943D-04	0.157334D-03
36	-0.321220D-05	-0.696089D-06	-0.234500D-04	0.260605D-03	0.647983D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.125161D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.008	0.002	-0.032	-0.036	0.018
8	0.024	0.014	-0.004	0.052	0.041
9	-0.035	-0.012	0.017	-0.005	-0.048
10	0.023	0.003	-0.044	-0.016	-0.027
11	-0.027	0.031	-0.057	0.017	0.033

12	0.008	-0.012	-0.027	0.006	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.026	-0.058	-0.050	0.007
15	0.009	0.004	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.047	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.029	0.012	-0.007	-0.029	0.008
35	-0.005	0.025	0.039	0.001	-0.028
36	0.002	0.017	-0.017	-0.039	0.048

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.029	1.000			
8	-0.001	-0.126	1.000		
9	0.002	0.004	0.114	1.000	
10	-0.004	-0.008	-0.168	0.044	1.000
11	-0.016	-0.012	-0.078	0.003	-0.199
12	0.010	-0.030	0.132	-0.160	0.090
13	-0.021	-0.027	0.008	-0.013	0.005
14	-0.010	0.012	0.007	-0.015	0.025
15	0.007	-0.045	-0.008	0.018	0.027
16	0.020	-0.091	0.020	-0.022	0.028
17	0.033	-0.006	0.002	0.004	-0.006
18	0.014	-0.011	-0.001	0.005	-0.043
19	0.019	0.002	-0.024	0.024	0.049

20	0.049	-0.014	0.013	0.036	-0.017
21	0.005	-0.032	-0.019	0.009	0.012
22	-0.008	0.013	-0.003	0.022	-0.062
23	-0.026	-0.018	0.014	-0.034	0.065
24	-0.017	-0.015	0.015	0.018	0.027
25	-0.012	-0.025	0.009	0.008	0.020
26	-0.002	0.013	-0.008	0.031	-0.008
27	-0.011	0.015	0.002	-0.001	-0.017
28	0.037	0.017	-0.035	-0.042	-0.029
29	0.024	0.039	-0.041	-0.029	-0.001
30	0.058	-0.014	0.001	-0.003	-0.031
31	-0.038	-0.014	-0.004	-0.041	-0.016
32	-0.017	-0.004	-0.002	-0.013	0.044
33	0.036	-0.074	0.030	0.011	-0.032
34	-0.007	-0.043	0.001	-0.031	-0.003
35	-0.024	0.025	-0.024	-0.045	-0.010
36	-0.041	0.342	0.068	-0.020	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.010	0.033	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.054	0.021	-0.122	-0.173	0.015
17	0.014	0.033	-0.096	-0.144	-0.224
18	0.020	-0.005	0.026	0.007	0.010
19	0.065	0.004	0.064	0.193	0.024
20	0.022	-0.007	0.014	0.057	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.006	-0.029	0.036	0.022	0.019
23	-0.019	0.037	0.080	0.160	0.009
24	-0.005	0.002	0.047	0.120	0.234
25	-0.024	0.032	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.017	0.006	-0.003	0.019	0.019
28	0.017	0.018	-0.113	-0.182	-0.016
29	-0.058	-0.020	-0.001	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.027	-0.004	-0.022	-0.010	-0.036
32	-0.011	0.002	-0.008	-0.028	-0.027

33	0.007	0.044	0.022	0.017	0.019
34	-0.019	-0.012	0.002	-0.009	0.010
35	0.021	0.038	0.046	-0.018	0.028
36	-0.027	-0.016	-0.008	-0.020	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.192
30	-0.069	-0.227	0.219	0.042	0.029
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.018	0.042
34	0.030	0.004	-0.008	-0.008	0.020
35	-0.019	-0.021	0.002	0.019	0.012
36	-0.034	0.022	-0.030	-0.012	-0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	0.000	-0.022	-0.026	0.016	0.027
35	0.031	0.009	-0.014	0.027	0.042
36	0.025	0.007	-0.015	0.033	0.057

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.001	-0.026	0.019	0.009	-0.025
35	0.018	0.015	-0.005	-0.022	0.013
36	0.030	0.019	-0.026	0.010	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.008	-0.019	-0.048	1.000	
35	-0.057	0.022	-0.014	-0.124	1.000
36	-0.014	-0.002	-0.039	0.214	0.146

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.012	35
200	1.014	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.006	35
700	1.008	35
800	1.005	35
900	1.003	35
1000	1.001	35

SPR - single practice, service promotion

SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES



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PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

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# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-17.462                      22.279

Posterior Predictive P-Value                      0.477

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.969	0.066	0.000	0.843	1.106	*
CHOICE15	-0.072	0.024	0.002	-0.118	-0.026	*
BULLY15	0.031	0.050	0.277	-0.070	0.127	
DUTIES15	-0.032	0.028	0.129	-0.083	0.024	
PRESS15	-0.032	0.026	0.111	-0.084	0.018	
KES15	0.225	0.044	0.000	0.143	0.312	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.436	-0.014	0.017
CHOICE15	-0.001	0.015	0.456	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.067	0.035	0.027	-0.142	0.001
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Thresholds

PHYCAT16\$1	1.321	0.037	0.000	1.248	1.394	*
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Residual Variances

PHYCAT16	0.017	0.014	0.000	0.001	0.055	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.415	0.023	0.000	0.370	0.459	*
CHOICE15	-0.066	0.022	0.002	-0.108	-0.023	*

BULLY15	0.013	0.021	0.277	-0.030	0.055	
DUTIES15	-0.027	0.023	0.129	-0.069	0.020	
PRESS15	-0.028	0.023	0.111	-0.073	0.016	
KES15	0.107	0.021	0.000	0.068	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.436	-0.025	0.031	
CHOICE15	-0.001	0.014	0.456	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.469	0.224	0.027	-0.885	0.006	
Thresholds PHYCAT16\$1	8.901	4.211	0.000	5.262	21.530	*
Residual Variances PHYCAT16	0.780	0.206	0.000	0.217	0.997	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.178	0.258

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.220	0.206	0.000	0.003	0.783

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
———  
0

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

NU	
PRESS15	DUTIES15
<u>0</u>	<u>0</u>

LAMBDA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA		
PRESS15	DUTIES15	
<u>0</u>	<u>0</u>	
PHYCAT16	0	
PHY15	0	
KES15	0	
CHOICE15	0	
BULLY15	0	
PRESS15	0	
DUTIES15	0	

THETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
PHYCAT16	0				
PHY15	0				
KES15	0	0			
CHOICE15	0	0	0		
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>          </u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>          </u>
36

NU	
PHYCAT16	SINGLE
<u>          </u>	<u>          </u>
0	0

	LAMBDA	
	PHYCAT16	SINGLE
PHYCAT16	<u>          </u>	<u>          </u>
SINGLE	0	0
	0	0

THETA



	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000      0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.361

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450530D-04				
2	0.998166D-05	0.604950D-04			
3	-0.752173D-05	-0.221255D-04	0.213901D-03		
4	0.337250D-05	0.123661D-04	-0.913452D-05	0.473274D-04	
5	0.114693D-04	0.198178D-04	-0.196364D-04	0.221007D-04	0.197379D-03
6	-0.554552D-05	-0.214152D-04	0.418987D-04	-0.152116D-04	-0.365521D-04
7	-0.321823D-05	0.129767D-05	-0.307561D-04	-0.165646D-04	0.162353D-04
8	0.690335D-05	0.504322D-05	-0.217523D-05	0.155524D-04	0.253205D-04
9	-0.564385D-05	-0.222761D-05	0.619542D-05	-0.898539D-06	-0.162401D-04
10	0.784299D-05	0.107818D-05	-0.325453D-04	-0.538092D-05	-0.187991D-04
11	-0.460999D-05	0.595959D-05	-0.215623D-04	0.298208D-05	0.117049D-04
12	0.150701D-05	-0.233855D-05	-0.110297D-04	0.127710D-05	0.169472D-04
13	0.223052D-07	0.966678D-06	-0.186838D-05	-0.687062D-06	-0.190298D-05
14	0.985059D-06	0.715678D-06	-0.305681D-05	-0.125328D-05	0.374949D-06
15	0.346078D-06	0.147194D-06	-0.301920D-05	0.345649D-06	-0.588037D-06
16	-0.663970D-06	-0.107545D-05	-0.118751D-05	0.616368D-06	-0.267313D-05
17	-0.473835D-06	-0.207368D-05	0.448681D-05	0.339683D-05	0.677629D-05
18	-0.431407D-05	-0.468526D-05	0.462401D-05	-0.748308D-05	-0.278911D-05
19	0.100946D-05	0.722720D-06	-0.136014D-05	0.185012D-06	-0.826952D-06
20	0.282091D-06	-0.269262D-06	-0.426812D-06	-0.381476D-06	-0.160361D-05
21	-0.932069D-06	-0.424311D-07	0.426505D-06	0.300125D-05	0.478741D-05
22	0.149662D-06	0.193104D-05	0.431241D-06	-0.815286D-06	0.189172D-05
23	0.992730D-06	0.783811D-06	0.127001D-05	-0.123116D-06	0.212918D-05

24	0.146715D-05	0.164440D-05	-0.282758D-05	-0.238800D-06	-0.555110D-05
25	0.120396D-06	0.221254D-05	0.875139D-05	0.132839D-05	0.640238D-05
26	0.493299D-06	0.697675D-06	0.451989D-05	-0.204296D-06	0.492727D-05
27	-0.230443D-05	0.497559D-05	0.949324D-05	0.648931D-06	0.395692D-05
28	-0.985711D-06	-0.208569D-05	-0.119978D-05	-0.425060D-06	0.211497D-05
29	-0.125216D-05	-0.868796D-06	0.433744D-05	-0.202025D-06	0.909254D-05
30	-0.141796D-06	0.880052D-06	0.125530D-05	-0.170549D-05	-0.139337D-04
31	-0.993238D-06	0.857881D-06	0.155655D-05	0.636203D-06	0.237191D-05
32	-0.131029D-05	0.504827D-06	0.633615D-05	0.168632D-05	-0.603139D-05
33	-0.127935D-05	-0.375006D-05	-0.331899D-05	-0.111887D-05	-0.591014D-05
34	-0.828728D-05	0.916819D-05	0.232685D-05	-0.737158D-05	0.667208D-05
35	-0.116700D-05	0.261016D-05	0.886435D-05	0.389959D-06	-0.501296D-05
36	0.156732D-06	0.727650D-05	-0.724394D-05	-0.992947D-05	0.256089D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172647D-03				
7	-0.253572D-04	0.434863D-02			
8	-0.675483D-06	-0.365975D-03	0.190774D-02		
9	0.608350D-06	0.391422D-05	0.118424D-03	0.569778D-03	
10	-0.284756D-05	-0.271349D-04	-0.366761D-03	0.520482D-04	0.245377D-02
11	-0.510589D-05	-0.198182D-04	-0.868116D-04	0.163860D-05	-0.250901D-03
12	0.353310D-05	-0.581296D-04	0.162563D-03	-0.107158D-03	0.123538D-03
13	-0.128122D-05	-0.805573D-05	0.181922D-05	-0.137466D-05	0.120115D-05
14	-0.482221D-06	0.295707D-05	0.103677D-05	-0.131304D-05	0.447585D-05
15	0.553785D-06	-0.164710D-04	-0.180531D-05	0.243211D-05	0.752200D-05
16	0.185608D-05	-0.422748D-04	0.635655D-05	-0.355113D-05	0.979029D-05
17	0.339570D-05	-0.305541D-05	0.812298D-06	0.753049D-06	-0.244288D-05
18	0.391103D-05	-0.169438D-04	-0.197416D-05	0.264580D-05	-0.446074D-04
19	0.813153D-06	0.524628D-06	-0.338879D-05	0.186520D-05	0.791593D-05
20	0.233397D-05	-0.329950D-05	0.228060D-05	0.313198D-05	-0.315176D-05
21	0.418612D-06	-0.149615D-04	-0.587098D-05	0.158383D-05	0.388462D-05
22	-0.486312D-06	0.453374D-05	-0.375107D-06	0.252721D-05	-0.150265D-04
23	-0.233743D-05	-0.855185D-05	0.419905D-05	-0.555258D-05	0.217949D-04
24	-0.167598D-05	-0.797651D-05	0.556875D-05	0.320122D-05	0.993556D-05
25	-0.221889D-05	-0.245068D-04	0.557942D-05	0.310243D-05	0.146892D-04
26	-0.191355D-06	0.633836D-05	-0.224018D-05	0.512097D-05	-0.290696D-05
27	-0.276142D-05	0.179003D-04	0.118381D-05	-0.300117D-06	-0.171608D-04
28	0.296628D-05	0.640059D-05	-0.936108D-05	-0.611508D-05	-0.903883D-05
29	0.228081D-05	0.176498D-04	-0.130613D-04	-0.495155D-05	-0.362059D-06
30	0.105582D-04	-0.109241D-04	0.581111D-06	-0.119123D-05	-0.217789D-04
31	-0.325764D-05	-0.637420D-05	-0.134234D-05	-0.644460D-05	-0.506124D-05

32	-0.288378D-05	-0.377157D-05	-0.126792D-05	-0.401084D-05	0.274506D-04
33	0.798630D-05	-0.826526D-04	0.211027D-04	0.454382D-05	-0.258445D-04
34	-0.158860D-05	-0.566019D-04	0.464605D-04	-0.201167D-04	-0.217029D-04
35	-0.419522D-05	0.272931D-04	-0.953258D-05	-0.133451D-04	-0.869683D-05
36	-0.188894D-04	0.805623D-03	0.119252D-03	-0.108253D-04	-0.417451D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.658117D-03				
12	0.129936D-03	0.781379D-03			
13	0.100103D-05	0.432099D-05	0.209800D-04		
14	0.187003D-05	0.184563D-05	0.447236D-05	0.131018D-04	
15	0.413335D-05	0.158157D-05	0.354737D-06	0.529214D-05	0.319559D-04
16	-0.989919D-05	0.409586D-05	-0.392022D-05	-0.438125D-05	0.579052D-06
17	0.276251D-05	0.748668D-05	-0.347805D-05	-0.415090D-05	-0.100692D-04
18	0.112715D-04	-0.292771D-05	0.257152D-05	0.541934D-06	0.120065D-05
19	0.542434D-05	0.407540D-06	0.954612D-06	0.225437D-05	0.445657D-06
20	0.195986D-05	-0.662761D-06	0.236732D-06	0.746322D-06	0.514825D-05
21	0.222721D-06	0.223310D-05	-0.857570D-06	-0.885080D-06	0.673482D-07
22	0.627909D-06	-0.391595D-05	0.785045D-06	0.380854D-06	0.513219D-06
23	-0.315482D-05	0.702458D-05	0.247705D-05	0.392804D-05	0.327965D-06
24	-0.110317D-05	0.568644D-06	0.165561D-05	0.334684D-05	0.101640D-04
25	-0.919750D-05	0.128875D-04	-0.216059D-05	-0.187322D-05	0.247184D-05
26	0.208113D-05	0.297522D-05	0.811480D-06	-0.412676D-06	0.742727D-06
27	0.902006D-05	0.303955D-05	-0.295046D-06	0.135561D-05	0.210166D-05
28	0.244280D-05	0.314131D-05	-0.316111D-05	-0.404431D-05	-0.568411D-06
29	-0.107441D-04	-0.403920D-05	-0.507565D-07	-0.267379D-05	-0.121495D-04
30	-0.132451D-05	-0.245276D-04	0.273239D-05	0.143643D-05	0.298090D-06
31	-0.442199D-05	-0.858079D-06	-0.657807D-06	-0.232279D-06	-0.132625D-05
32	-0.361989D-05	0.910902D-06	-0.444045D-06	-0.128072D-05	-0.190594D-05
33	0.340019D-05	0.205765D-04	0.171259D-05	0.106396D-05	0.186285D-05
34	-0.280459D-04	0.137549D-04	-0.152866D-05	-0.221449D-05	0.363950D-05
35	0.348115D-05	0.186054D-04	0.274708D-05	-0.947046D-06	0.208939D-05
36	-0.257899D-04	-0.723439D-05	-0.195376D-05	-0.360640D-05	0.340540D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487885D-04				
17	0.116867D-04	0.630630D-04			
18	-0.166562D-04	-0.375801D-04	0.455416D-03		



19	-0.191137D-05	-0.182644D-05	0.263920D-05	0.104692D-04	
20	-0.816850D-06	-0.456369D-05	0.524369D-06	0.301754D-05	0.133094D-04
21	0.305129D-05	0.110329D-04	-0.288245D-04	-0.233373D-05	-0.434991D-05
22	0.847397D-06	-0.337695D-05	-0.198366D-06	0.200368D-05	0.495623D-05
23	-0.285731D-05	0.842939D-07	0.228470D-05	0.498396D-05	0.123962D-05
24	-0.378160D-05	-0.690621D-05	-0.112026D-05	0.977896D-06	0.684394D-05
25	0.870280D-05	0.159926D-04	-0.477182D-04	-0.335102D-05	-0.110158D-05
26	-0.298276D-05	-0.138577D-05	0.431556D-05	0.225486D-05	0.579179D-05
27	-0.611867D-05	-0.439924D-05	0.195165D-04	0.496513D-05	0.711727D-05
28	0.619424D-05	0.382745D-05	-0.405076D-05	-0.351213D-05	-0.125957D-05
29	0.143130D-06	0.123659D-04	-0.328120D-05	-0.154956D-05	-0.501926D-05
30	-0.670596D-05	-0.249419D-04	0.646168D-04	0.185933D-05	0.143454D-05
31	0.945854D-06	0.612850D-05	-0.172495D-05	-0.252675D-05	-0.610827D-05
32	0.551902D-05	0.665984D-05	-0.160302D-04	-0.137128D-05	-0.428551D-05
33	0.443274D-05	-0.113261D-04	0.776223D-05	0.957985D-06	0.261553D-05
34	0.956847D-05	0.104940D-06	-0.167380D-04	0.138776D-06	0.340183D-05
35	-0.202783D-05	-0.194610D-05	0.934913D-07	0.102163D-05	0.608575D-06
36	-0.801900D-05	0.623595D-05	-0.258415D-04	-0.911090D-06	-0.406018D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478251D-04				
22	-0.602846D-05	0.233621D-04			
23	-0.980138D-06	0.153905D-05	0.461745D-04		
24	-0.347943D-05	0.420679D-05	0.971072D-05	0.591046D-04	
25	0.235109D-04	-0.165905D-05	-0.574758D-05	-0.162023D-04	0.208201D-03
26	-0.462349D-05	0.106547D-04	0.268748D-05	0.129449D-04	-0.794445D-05
27	-0.507745D-05	0.100918D-04	0.146404D-04	0.375362D-04	-0.198758D-04
28	0.671934D-06	-0.177948D-05	-0.912215D-05	-0.160148D-05	-0.843909D-07
29	0.282369D-05	-0.238562D-05	-0.317041D-05	-0.137671D-04	0.414730D-05
30	-0.175159D-04	0.318612D-05	0.344987D-07	0.618529D-05	-0.443937D-04
31	0.825108D-05	-0.792240D-05	-0.265139D-05	-0.586428D-05	0.506050D-05
32	0.435500D-05	-0.447496D-05	-0.583980D-05	-0.203161D-04	0.221373D-04
33	-0.700609D-05	0.537233D-05	0.213999D-05	0.614354D-05	-0.109137D-04
34	-0.183466D-05	0.121101D-05	-0.532693D-05	0.107002D-04	0.250615D-05
35	0.218871D-05	0.968701D-06	-0.124386D-05	0.310658D-05	0.747546D-05
36	0.584212D-05	0.288835D-05	-0.380310D-05	0.108340D-04	0.265553D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475450D-04					
27	0.414781D-04	0.387705D-03				
28	-0.858517D-06	-0.484826D-05	0.375036D-04			
29	-0.194270D-05	-0.877931D-05	0.797218D-05	0.516389D-04		
30	0.462583D-05	0.262766D-04	-0.700395D-05	-0.186100D-04	0.191139D-03	
31	-0.957218D-05	-0.967497D-05	0.279720D-05	0.130440D-04	-0.110190D-04	
32	-0.152182D-04	-0.649145D-04	0.421076D-05	0.198505D-04	-0.194322D-04	
33	0.632288D-05	0.118234D-04	-0.747545D-05	-0.373230D-04	0.567689D-04	
34	0.663618D-05	-0.183374D-04	0.862324D-05	0.447038D-05	-0.131094D-04	
35	0.256060D-05	0.312222D-05	-0.227220D-06	-0.224707D-05	0.216820D-05	
36	0.920455D-05	0.111179D-04	-0.420850D-05	0.237819D-05	-0.994207D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422947D-04				
32	0.239112D-04	0.160898D-03			
33	-0.287846D-04	-0.530655D-04	0.285428D-03		
34	0.518103D-05	-0.114653D-05	-0.410293D-04	0.123539D-02	
35	-0.486974D-05	0.487321D-05	-0.426937D-05	-0.522115D-04	0.187436D-03
36	-0.250597D-05	0.188347D-06	-0.282113D-04	0.316133D-03	0.773807D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.133338D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.007	0.003	-0.032	-0.037	0.018
8	0.024	0.015	-0.003	0.052	0.041
9	-0.035	-0.012	0.018	-0.005	-0.048
10	0.024	0.003	-0.045	-0.016	-0.027
11	-0.027	0.030	-0.057	0.017	0.032

12	0.008	-0.011	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.025	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.028	0.028	-0.025	-0.005	-0.051
25	0.001	0.020	0.041	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.035	0.034	0.005	-0.030	0.014
35	-0.013	0.025	0.044	0.004	-0.026
36	0.001	0.026	-0.014	-0.040	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.029	1.000			
8	-0.001	-0.127	1.000		
9	0.002	0.002	0.114	1.000	
10	-0.004	-0.008	-0.170	0.044	1.000
11	-0.015	-0.012	-0.077	0.003	-0.197
12	0.010	-0.032	0.133	-0.161	0.089
13	-0.021	-0.027	0.009	-0.013	0.005
14	-0.010	0.012	0.007	-0.015	0.025
15	0.007	-0.044	-0.007	0.018	0.027
16	0.020	-0.092	0.021	-0.021	0.028
17	0.033	-0.006	0.002	0.004	-0.006
18	0.014	-0.012	-0.002	0.005	-0.042
19	0.019	0.002	-0.024	0.024	0.049

20	0.049	-0.014	0.014	0.036	-0.017
21	0.005	-0.033	-0.019	0.010	0.011
22	-0.008	0.014	-0.002	0.022	-0.063
23	-0.026	-0.019	0.014	-0.034	0.065
24	-0.017	-0.016	0.017	0.017	0.026
25	-0.012	-0.026	0.009	0.009	0.021
26	-0.002	0.014	-0.007	0.031	-0.009
27	-0.011	0.014	0.001	-0.001	-0.018
28	0.037	0.016	-0.035	-0.042	-0.030
29	0.024	0.037	-0.042	-0.029	-0.001
30	0.058	-0.012	0.001	-0.004	-0.032
31	-0.038	-0.015	-0.005	-0.042	-0.016
32	-0.017	-0.005	-0.002	-0.013	0.044
33	0.036	-0.074	0.029	0.011	-0.031
34	-0.003	-0.024	0.030	-0.024	-0.012
35	-0.023	0.030	-0.016	-0.041	-0.013
36	-0.039	0.335	0.075	-0.012	-0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	0.009	0.034	1.000		
14	0.020	0.018	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.055	0.021	-0.123	-0.173	0.015
17	0.014	0.034	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.065	0.005	0.064	0.192	0.024
20	0.021	-0.006	0.014	0.057	0.250
21	0.001	0.012	-0.027	-0.035	0.002
22	0.005	-0.029	0.035	0.022	0.019
23	-0.018	0.037	0.080	0.160	0.009
24	-0.006	0.003	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.018	0.006	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.058	-0.020	-0.002	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.027	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.003	-0.008	-0.028	-0.027

33	0.008	0.044	0.022	0.017	0.020
34	-0.031	0.014	-0.009	-0.017	0.018
35	0.010	0.049	0.044	-0.019	0.027
36	-0.028	-0.007	-0.012	-0.027	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.033	-0.093
33	0.038	-0.084	0.022	0.018	0.042
34	0.039	0.000	-0.022	0.001	0.027
35	-0.021	-0.018	0.000	0.023	0.012
36	-0.031	0.022	-0.033	-0.008	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.008	0.007	-0.022	0.040	0.005
35	0.023	0.015	-0.013	0.030	0.038
36	0.023	0.016	-0.015	0.039	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.027	-0.026	0.040	0.018	-0.027
35	0.027	0.012	-0.003	-0.023	0.011
36	0.037	0.015	-0.019	0.009	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.023	-0.003	-0.069	1.000	
35	-0.055	0.028	-0.018	-0.109	1.000
36	-0.011	0.000	-0.046	0.246	0.155

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.012	10
200	1.010	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.005	35
700	1.006	35
800	1.003	35
900	1.002	35
1000	1.000	35

CUL - single practice, management support

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142



131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

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PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

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# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-17.068                      22.847

Posterior Predictive P-Value                      0.477

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.969	0.066	0.000	0.843	1.105	*
CHOICE15	-0.071	0.024	0.002	-0.116	-0.024	*
BULLY15	0.031	0.050	0.277	-0.070	0.127	
DUTIES15	-0.031	0.028	0.136	-0.082	0.025	
PRESS15	-0.033	0.026	0.105	-0.084	0.017	
KES15	0.227	0.044	0.000	0.145	0.314	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.435	-0.014	0.017
CHOICE15	-0.001	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.465	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.075	0.038	0.023	-0.150	-0.002	*
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Thresholds

PHYCAT16\$1	1.340	0.035	0.000	1.269	1.411	*
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Residual Variances

PHYCAT16	0.016	0.013	0.000	0.001	0.052	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.414	0.023	0.000	0.369	0.459	*
CHOICE15	-0.065	0.022	0.002	-0.107	-0.022	*

BULLY15	0.013	0.021	0.277	-0.030	0.055	
DUTIES15	-0.025	0.023	0.136	-0.068	0.021	
PRESS15	-0.029	0.023	0.105	-0.074	0.015	
KES15	0.108	0.021	0.000	0.069	0.149	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.194	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.435	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.465	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.508	0.225	0.023	-0.885	-0.012	*
Thresholds PHYCAT16\$1	8.961	3.817	0.000	5.361	19.541	*
Residual Variances PHYCAT16	0.742	0.211	0.000	0.216	0.995	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.020	0.000	0.178	0.257

##### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.258	0.211	0.000	0.005	0.784

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
— 0 —

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0

DUTIES15	0	0	0	0	0
----------	---	---	---	---	---

THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0



	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>36</u>

NU	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>

LAMBDA	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>
SINGLE	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA		
	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.116</u>	<u>0.145</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.116	0.145	0.000	0.000
KES15	0.000	0.000	0.145	0.000	0.000

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	0.362

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450381D-04				
2	0.998061D-05	0.604967D-04			
3	-0.751144D-05	-0.221219D-04	0.213881D-03		
4	0.337064D-05	0.123649D-04	-0.912983D-05	0.473259D-04	
5	0.114664D-04	0.198146D-04	-0.196292D-04	0.220976D-04	0.197375D-03
6	-0.554250D-05	-0.214152D-04	0.419010D-04	-0.152101D-04	-0.365547D-04
7	-0.336712D-05	0.145581D-05	-0.297833D-04	-0.168314D-04	0.170031D-04
8	0.702306D-05	0.481548D-05	-0.212813D-05	0.155034D-04	0.251620D-04
9	-0.556538D-05	-0.228244D-05	0.583220D-05	-0.834487D-06	-0.162397D-04
10	0.768179D-05	0.115171D-05	-0.322297D-04	-0.536925D-05	-0.186584D-04
11	-0.462876D-05	0.608755D-05	-0.214883D-04	0.290956D-05	0.117424D-04
12	0.158695D-05	-0.247580D-05	-0.110903D-04	0.112646D-05	0.168515D-04
13	0.218937D-07	0.967145D-06	-0.186973D-05	-0.685878D-06	-0.189599D-05
14	0.984886D-06	0.718377D-06	-0.305935D-05	-0.125295D-05	0.378671D-06
15	0.346745D-06	0.151154D-06	-0.301958D-05	0.345395D-06	-0.584477D-06
16	-0.658359D-06	-0.107634D-05	-0.120381D-05	0.616281D-06	-0.267286D-05
17	-0.476132D-06	-0.207755D-05	0.448394D-05	0.339799D-05	0.677087D-05
18	-0.432774D-05	-0.469260D-05	0.463259D-05	-0.748339D-05	-0.278998D-05
19	0.100727D-05	0.721254D-06	-0.135776D-05	0.184594D-06	-0.826605D-06
20	0.284401D-06	-0.267961D-06	-0.426789D-06	-0.380966D-06	-0.160323D-05
21	-0.929591D-06	-0.396291D-07	0.422585D-06	0.300374D-05	0.478638D-05
22	0.154302D-06	0.193280D-05	0.427362D-06	-0.814299D-06	0.189378D-05
23	0.989984D-06	0.786958D-06	0.127259D-05	-0.123332D-06	0.212366D-05

24	0.147407D-05	0.165048D-05	-0.283729D-05	-0.236770D-06	-0.554470D-05
25	0.116051D-06	0.221378D-05	0.875838D-05	0.133054D-05	0.641379D-05
26	0.496467D-06	0.699304D-06	0.451262D-05	-0.203858D-06	0.492940D-05
27	-0.230279D-05	0.497348D-05	0.948614D-05	0.648758D-06	0.394048D-05
28	-0.979181D-06	-0.208515D-05	-0.120761D-05	-0.424614D-06	0.212186D-05
29	-0.125182D-05	-0.869356D-06	0.433878D-05	-0.201221D-06	0.909431D-05
30	-0.141625D-06	0.881322D-06	0.125071D-05	-0.170503D-05	-0.139337D-04
31	-0.994751D-06	0.857149D-06	0.156235D-05	0.637067D-06	0.236953D-05
32	-0.130761D-05	0.509501D-06	0.634022D-05	0.168998D-05	-0.602327D-05
33	-0.128988D-05	-0.375709D-05	-0.330528D-05	-0.112376D-05	-0.591961D-05
34	-0.774159D-05	0.998022D-06	-0.367755D-06	-0.476558D-05	0.324421D-05
35	-0.704909D-06	0.256595D-05	0.843056D-05	0.353919D-06	-0.459220D-05
36	0.196500D-05	0.361117D-05	-0.101279D-04	-0.790928D-05	0.241918D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172651D-03				
7	-0.263477D-04	0.435933D-02			
8	-0.567546D-06	-0.361860D-03	0.190144D-02		
9	0.116442D-05	0.373232D-05	0.119303D-03	0.572358D-03	
10	-0.256803D-05	-0.302283D-04	-0.363065D-03	0.523309D-04	0.244990D-02
11	-0.536859D-05	-0.191701D-04	-0.868598D-04	0.971598D-06	-0.252437D-03
12	0.385880D-05	-0.562994D-04	0.161715D-03	-0.105144D-03	0.125551D-03
13	-0.128707D-05	-0.772309D-05	0.159822D-05	-0.153868D-05	0.121519D-05
14	-0.485255D-06	0.276600D-05	0.107305D-05	-0.135152D-05	0.442865D-05
15	0.553213D-06	-0.166490D-04	-0.181300D-05	0.239832D-05	0.758089D-05
16	0.185613D-05	-0.412292D-04	0.614795D-05	-0.371058D-05	0.982437D-05
17	0.339684D-05	-0.352080D-05	0.500456D-06	0.878724D-06	-0.244649D-05
18	0.390846D-05	-0.170489D-04	-0.143548D-05	0.253007D-05	-0.447626D-04
19	0.812778D-06	0.626103D-06	-0.341695D-05	0.177356D-05	0.787799D-05
20	0.233368D-05	-0.300778D-05	0.224716D-05	0.307374D-05	-0.316255D-05
21	0.420749D-06	-0.150061D-04	-0.580145D-05	0.156222D-05	0.388452D-05
22	-0.489343D-06	0.492859D-05	-0.381692D-06	0.247236D-05	-0.149074D-04
23	-0.233571D-05	-0.871636D-05	0.429523D-05	-0.572004D-05	0.217468D-04
24	-0.168254D-05	-0.736253D-05	0.521080D-05	0.292299D-05	0.100856D-04
25	-0.221298D-05	-0.242688D-04	0.602029D-05	0.321218D-05	0.144397D-04
26	-0.199249D-06	0.655725D-05	-0.249220D-05	0.487901D-05	-0.284787D-05
27	-0.276717D-05	0.194954D-04	0.126790D-05	-0.722331D-06	-0.171512D-04
28	0.296275D-05	0.686462D-05	-0.953531D-05	-0.605698D-05	-0.892910D-05
29	0.228313D-05	0.177201D-04	-0.130233D-04	-0.476224D-05	-0.294233D-06
30	0.105536D-04	-0.109908D-04	0.626338D-06	-0.136014D-05	-0.217074D-04
31	-0.325222D-05	-0.653621D-05	-0.123212D-05	-0.615804D-05	-0.500584D-05



32	-0.288434D-05	-0.317277D-05	-0.926930D-06	-0.380883D-05	0.275977D-04
33	0.800152D-05	-0.840943D-04	0.214278D-04	0.509848D-05	-0.259369D-04
34	-0.782634D-05	-0.105529D-03	0.374442D-04	-0.269489D-04	0.987287D-06
35	-0.403576D-05	0.341589D-04	-0.125836D-04	-0.182851D-04	-0.572099D-05
36	-0.177708D-04	0.820089D-03	0.113601D-03	-0.409512D-05	-0.314393D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.657735D-03				
12	0.129104D-03	0.780404D-03			
13	0.113865D-05	0.418154D-05	0.209797D-04		
14	0.184782D-05	0.186520D-05	0.447066D-05	0.130994D-04	
15	0.416653D-05	0.165261D-05	0.352492D-06	0.528975D-05	0.319544D-04
16	-0.978558D-05	0.392631D-05	-0.391440D-05	-0.438032D-05	0.581411D-06
17	0.285875D-05	0.742826D-05	-0.347712D-05	-0.414877D-05	-0.100674D-04
18	0.113109D-04	-0.269894D-05	0.255879D-05	0.537738D-06	0.119943D-05
19	0.542495D-05	0.346321D-06	0.955092D-06	0.225379D-05	0.445696D-06
20	0.198805D-05	-0.667845D-06	0.237824D-06	0.746056D-06	0.514815D-05
21	0.284824D-06	0.213253D-05	-0.854179D-06	-0.882537D-06	0.694482D-07
22	0.642671D-06	-0.388827D-05	0.786160D-06	0.381780D-06	0.514360D-06
23	-0.322527D-05	0.703277D-05	0.247252D-05	0.392648D-05	0.328643D-06
24	-0.893752D-06	0.521197D-06	0.165443D-05	0.334546D-05	0.101651D-04
25	-0.911667D-05	0.128762D-04	-0.215802D-05	-0.187269D-05	0.247250D-05
26	0.215926D-05	0.284054D-05	0.813258D-06	-0.413121D-06	0.742007D-06
27	0.883945D-05	0.327484D-05	-0.292609D-06	0.135680D-05	0.209914D-05
28	0.253140D-05	0.312996D-05	-0.316088D-05	-0.404342D-05	-0.565296D-06
29	-0.108314D-04	-0.409792D-05	-0.473173D-07	-0.266977D-05	-0.121462D-04
30	-0.127245D-05	-0.244429D-04	0.272463D-05	0.143195D-05	0.295013D-06
31	-0.459874D-05	-0.798907D-06	-0.654830D-06	-0.231607D-06	-0.132647D-05
32	-0.369219D-05	0.955862D-06	-0.444232D-06	-0.128051D-05	-0.190406D-05
33	0.314965D-05	0.211398D-04	0.170345D-05	0.106007D-05	0.185966D-05
34	-0.169382D-04	-0.407248D-04	0.961655D-07	-0.138143D-05	0.326039D-05
35	0.633706D-05	0.116704D-04	0.289055D-05	-0.847795D-06	0.201175D-05
36	-0.218624D-04	-0.109458D-04	-0.239471D-05	-0.269495D-05	0.216467D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487873D-04				
17	0.116870D-04	0.630639D-04			
18	-0.166556D-04	-0.375898D-04	0.455427D-03		

19	-0.191175D-05	-0.182732D-05	0.263438D-05	0.104692D-04	
20	-0.816664D-06	-0.456315D-05	0.522131D-06	0.301799D-05	0.133090D-04
21	0.305009D-05	0.110323D-04	-0.288196D-04	-0.233397D-05	-0.435002D-05
22	0.844795D-06	-0.337845D-05	-0.196430D-06	0.200284D-05	0.495535D-05
23	-0.284901D-05	0.908862D-07	0.228511D-05	0.498426D-05	0.123836D-05
24	-0.377755D-05	-0.690204D-05	-0.111435D-05	0.980343D-06	0.684345D-05
25	0.869582D-05	0.159937D-04	-0.477130D-04	-0.335737D-05	-0.110533D-05
26	-0.298686D-05	-0.138674D-05	0.431097D-05	0.225415D-05	0.579066D-05
27	-0.610691D-05	-0.439722D-05	0.195017D-04	0.496819D-05	0.711875D-05
28	0.619086D-05	0.382557D-05	-0.403318D-05	-0.350987D-05	-0.125977D-05
29	0.133412D-06	0.123618D-04	-0.326679D-05	-0.154902D-05	-0.501891D-05
30	-0.669967D-05	-0.249400D-04	0.646090D-04	0.186324D-05	0.143670D-05
31	0.948259D-06	0.612977D-05	-0.172391D-05	-0.252705D-05	-0.610875D-05
32	0.551662D-05	0.666122D-05	-0.160318D-04	-0.137574D-05	-0.428703D-05
33	0.444539D-05	-0.113232D-04	0.774473D-05	0.958673D-06	0.261707D-05
34	0.725506D-05	0.200060D-05	0.336478D-05	0.105867D-05	0.241037D-06
35	-0.249301D-05	-0.195961D-05	0.212670D-05	0.952180D-06	0.701564D-06
36	-0.101719D-04	0.632091D-05	-0.211524D-04	-0.105893D-05	-0.468540D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478279D-04				
22	-0.602918D-05	0.233619D-04			
23	-0.981627D-06	0.153708D-05	0.461683D-04		
24	-0.348085D-05	0.420583D-05	0.970443D-05	0.590980D-04	
25	0.235173D-04	-0.166228D-05	-0.574164D-05	-0.162005D-04	0.208195D-03
26	-0.462364D-05	0.106544D-04	0.268454D-05	0.129436D-04	-0.794374D-05
27	-0.508244D-05	0.100926D-04	0.146211D-04	0.375307D-04	-0.198583D-04
28	0.671306D-06	-0.177882D-05	-0.911866D-05	-0.160098D-05	-0.844100D-07
29	0.282196D-05	-0.238571D-05	-0.317065D-05	-0.137669D-04	0.414868D-05
30	-0.175173D-04	0.318943D-05	0.338235D-07	0.618303D-05	-0.443973D-04
31	0.825293D-05	-0.792323D-05	-0.265574D-05	-0.586855D-05	0.506849D-05
32	0.436343D-05	-0.447775D-05	-0.584107D-05	-0.203173D-04	0.221395D-04
33	-0.701016D-05	0.537550D-05	0.215241D-05	0.615031D-05	-0.109337D-04
34	-0.302896D-05	-0.626007D-05	-0.463198D-05	0.772310D-08	-0.147641D-05
35	0.182330D-05	0.644003D-06	-0.153515D-05	0.271861D-05	0.648994D-05
36	0.615085D-05	0.156485D-05	-0.333983D-05	0.619516D-05	0.250366D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475455D-04					
27	0.414823D-04	0.387688D-03				
28	-0.859800D-06	-0.484569D-05	0.375058D-04			
29	-0.194296D-05	-0.878002D-05	0.797116D-05	0.516362D-04		
30	0.462520D-05	0.262771D-04	-0.700203D-05	-0.186079D-04	0.191136D-03	
31	-0.957382D-05	-0.967981D-05	0.280338D-05	0.130467D-04	-0.110267D-04	
32	-0.152228D-04	-0.649072D-04	0.420960D-05	0.198514D-04	-0.194419D-04	
33	0.632906D-05	0.118384D-04	-0.747473D-05	-0.373245D-04	0.567732D-04	
34	0.164570D-05	-0.168884D-04	0.361250D-05	0.439054D-05	-0.168994D-05	
35	0.281361D-05	0.498733D-05	-0.105288D-05	-0.301721D-05	0.364790D-05	
36	0.685721D-05	0.161914D-04	-0.614027D-05	0.263023D-05	-0.706174D-05	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422986D-04				
32	0.239202D-04	0.160905D-03			
33	-0.287946D-04	-0.530908D-04	0.285456D-03		
34	0.713298D-05	-0.722622D-05	-0.385807D-04	0.144968D-02	
35	-0.514464D-05	0.326982D-05	-0.467168D-05	-0.500069D-04	0.174306D-03
36	-0.185702D-05	0.177374D-05	-0.174212D-04	-0.268569D-04	0.427826D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.121598D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.194	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.008	0.003	-0.031	-0.037	0.018
8	0.024	0.014	-0.003	0.052	0.041
9	-0.035	-0.012	0.017	-0.005	-0.048
10	0.023	0.003	-0.045	-0.016	-0.027
11	-0.027	0.031	-0.057	0.016	0.033

12	0.008	-0.011	-0.027	0.006	0.043
13	0.001	0.027	-0.028	-0.022	-0.029
14	0.041	0.026	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.004	-0.051
25	0.001	0.020	0.042	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.017	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.016	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.030	0.003	-0.001	-0.018	0.006
35	-0.008	0.025	0.044	0.004	-0.025
36	0.008	0.013	-0.020	-0.033	0.049

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.030	1.000			
8	-0.001	-0.126	1.000		
9	0.004	0.002	0.114	1.000	
10	-0.004	-0.009	-0.168	0.044	1.000
11	-0.016	-0.011	-0.078	0.002	-0.199
12	0.011	-0.031	0.133	-0.157	0.091
13	-0.021	-0.026	0.008	-0.014	0.005
14	-0.010	0.012	0.007	-0.016	0.025
15	0.007	-0.045	-0.007	0.018	0.027
16	0.020	-0.089	0.020	-0.022	0.028
17	0.033	-0.007	0.001	0.005	-0.006
18	0.014	-0.012	-0.002	0.005	-0.042
19	0.019	0.003	-0.024	0.023	0.049

20	0.049	-0.012	0.014	0.035	-0.018
21	0.005	-0.033	-0.019	0.009	0.011
22	-0.008	0.015	-0.002	0.021	-0.062
23	-0.026	-0.019	0.014	-0.035	0.065
24	-0.017	-0.015	0.016	0.016	0.027
25	-0.012	-0.025	0.010	0.009	0.020
26	-0.002	0.014	-0.008	0.030	-0.008
27	-0.011	0.015	0.001	-0.002	-0.018
28	0.037	0.017	-0.036	-0.041	-0.029
29	0.024	0.037	-0.042	-0.028	-0.001
30	0.058	-0.012	0.001	-0.004	-0.032
31	-0.038	-0.015	-0.004	-0.040	-0.016
32	-0.017	-0.004	-0.002	-0.013	0.044
33	0.036	-0.075	0.029	0.013	-0.031
34	-0.016	-0.042	0.023	-0.030	0.001
35	-0.023	0.039	-0.022	-0.058	-0.009
36	-0.039	0.356	0.075	-0.005	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.180	1.000			
13	0.010	0.033	1.000		
14	0.020	0.018	0.270	1.000	
15	0.029	0.010	0.014	0.259	1.000
16	-0.055	0.020	-0.122	-0.173	0.015
17	0.014	0.033	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.065	0.004	0.064	0.192	0.024
20	0.021	-0.007	0.014	0.057	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.005	-0.029	0.036	0.022	0.019
23	-0.019	0.037	0.079	0.160	0.009
24	-0.005	0.002	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.012	0.015	0.026	-0.017	0.019
27	0.018	0.006	-0.003	0.019	0.019
28	0.016	0.018	-0.113	-0.182	-0.016
29	-0.059	-0.020	-0.001	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.028	-0.004	-0.022	-0.010	-0.036
32	-0.011	0.003	-0.008	-0.028	-0.027

33	0.007	0.045	0.022	0.017	0.019
34	-0.017	-0.038	0.001	-0.010	0.015
35	0.019	0.032	0.048	-0.018	0.027
36	-0.024	-0.011	-0.015	-0.021	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.104	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.191
30	-0.069	-0.227	0.219	0.042	0.028
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.034	-0.093
33	0.038	-0.084	0.021	0.018	0.042
34	0.027	0.007	0.004	0.009	0.002
35	-0.027	-0.019	0.008	0.022	0.015
36	-0.042	0.023	-0.028	-0.009	-0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.012	-0.034	-0.018	0.000	-0.003
35	0.020	0.010	-0.017	0.027	0.034
36	0.026	0.009	-0.014	0.023	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.006	-0.023	0.015	0.016	-0.003
35	0.031	0.019	-0.013	-0.032	0.020
36	0.029	0.024	-0.029	0.010	-0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.029	-0.015	-0.060	1.000	
35	-0.060	0.020	-0.021	-0.099	1.000
36	-0.008	0.004	-0.030	-0.020	0.093

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.012	10
200	1.015	36
300	1.008	8
400	1.009	33
500	1.005	3
600	1.005	35
700	1.006	35
800	1.003	35
900	1.002	35
1000	1.000	35



FEL - single practice, flexible time

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000				
PHY15	0.947	0.947			
KES15	0.922	0.922	0.922		
CHOICE15	0.915	0.915	0.915	0.915	
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.914
DUTIES15	0.915	0.915	0.915	0.915	0.915
SINGLE	1.000	0.947	0.922	0.915	0.915

	Covariance Coverage		
	PRESS15	DUTIES15	SINGLE
PRESS15	0.915		
DUTIES15	0.915	0.915	
SINGLE	0.915	0.915	1.000

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

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PHYCAT16
  Category 1    0.881      4884.000
  Category 2    0.119      662.000

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# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
PHY15	0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15	0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15	0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15	0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15	0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15	0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	
SINGLE	43.091	0.291	0.000	22.41%	0.000	15.000	35.000
58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 36

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between

the Observed and the Replicated Chi-Square Values

-17.461                      21.602

Posterior Predictive P-Value                      0.471

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16    ON						
PHY15	0.971	0.066	0.000	0.844	1.107	*
CHOICE15	-0.073	0.024	0.002	-0.118	-0.026	*
BULLY15	0.033	0.049	0.261	-0.068	0.129	
DUTIES15	-0.033	0.028	0.125	-0.084	0.023	
PRESS15	-0.033	0.026	0.107	-0.084	0.017	
KES15	0.227	0.044	0.000	0.145	0.314	*
KES15        WITH						
PHY15	0.051	0.004	0.000	0.044	0.058	*
CHOICE15	-0.089	0.008	0.000	-0.105	-0.074	*
BULLY15	0.057	0.004	0.000	0.050	0.065	*
PRESS15	0.100	0.008	0.000	0.084	0.115	*
DUTIES15	-0.106	0.007	0.000	-0.121	-0.091	*
PHY15        WITH						
CHOICE15	-0.036	0.007	0.000	-0.050	-0.023	*
BULLY15	0.012	0.003	0.000	0.005	0.018	*
PRESS15	0.039	0.007	0.000	0.025	0.052	*
DUTIES15	-0.036	0.006	0.000	-0.048	-0.024	*
CHOICE15 WITH						
BULLY15	-0.058	0.007	0.000	-0.071	-0.044	*
PRESS15	-0.087	0.014	0.000	-0.115	-0.059	*
DUTIES15	0.173	0.014	0.000	0.146	0.200	*
BULLY15    WITH						
PRESS15	0.105	0.007	0.000	0.091	0.118	*
DUTIES15	-0.078	0.007	0.000	-0.091	-0.066	*

PRESS15 WITH DUTIES15	-0.186	0.013	0.000	-0.211	-0.161	*
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Means

PHY15	0.002	0.007	0.359	-0.010	0.016
KES15	0.001	0.008	0.437	-0.014	0.017
CHOICE15	-0.001	0.015	0.457	-0.030	0.027
BULLY15	0.001	0.007	0.464	-0.013	0.014
PRESS15	0.000	0.014	0.490	-0.027	0.029
DUTIES15	-0.002	0.013	0.443	-0.026	0.025

Variances

PHY15	0.233	0.005	0.000	0.225	0.243	*
KES15	0.290	0.006	0.000	0.279	0.301	*
CHOICE15	1.081	0.021	0.000	1.041	1.123	*
BULLY15	0.239	0.005	0.000	0.230	0.249	*
PRESS15	1.002	0.020	0.000	0.964	1.041	*
DUTIES15	0.862	0.017	0.000	0.830	0.896	*

Between Level

PHYCAT16 ON SINGLE	-0.002	0.001	0.014	-0.004	0.000	*
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Thresholds

PHYCAT16\$1	1.264	0.050	0.000	1.166	1.362	*
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Residual Variances

PHYCAT16	0.016	0.013	0.000	0.002	0.050	*
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STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.415	0.023	0.000	0.370	0.460	*
CHOICE15	-0.066	0.022	0.002	-0.108	-0.024	*

BULLY15	0.014	0.021	0.261	-0.029	0.055	
DUTIES15	-0.027	0.023	0.125	-0.069	0.019	
PRESS15	-0.029	0.023	0.107	-0.074	0.016	
KES15	0.108	0.021	0.000	0.069	0.149	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.223	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.131	*
BULLY15	0.219	0.013	0.000	0.193	0.243	*
PRESS15	0.185	0.014	0.000	0.158	0.211	*
DUTIES15	-0.212	0.013	0.000	-0.239	-0.184	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.099	-0.046	*
BULLY15	0.049	0.014	0.000	0.022	0.077	*
PRESS15	0.080	0.014	0.000	0.052	0.107	*
DUTIES15	-0.080	0.014	0.000	-0.108	-0.055	*
CHOICE15 WITH						
BULLY15	-0.114	0.013	0.000	-0.138	-0.087	*
PRESS15	-0.083	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.189	0.239	*
DUTIES15	-0.171	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.005	0.014	0.359	-0.022	0.033	
KES15	0.002	0.014	0.437	-0.025	0.031	
CHOICE15	-0.001	0.014	0.457	-0.029	0.026	
BULLY15	0.001	0.014	0.464	-0.027	0.030	
PRESS15	0.000	0.014	0.490	-0.027	0.029	
DUTIES15	-0.002	0.014	0.443	-0.027	0.027	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	

DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PHYCAT16 ON SINGLE	-0.509	0.207	0.014	-0.852	-0.048	*
Thresholds PHYCAT16\$1	8.603	3.598	0.000	4.947	18.248	*
Residual Variances PHYCAT16	0.741	0.200	0.000	0.274	0.996	*

#### R-SQUARE

##### Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.020	0.000	0.179	0.259

##### Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
PHYCAT16	0.259	0.200	0.000	0.004	0.726

#### TECHNICAL 1 OUTPUT

##### PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
— 0 —

NU

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0

NU	
PRESS15	DUTIES15
<hr/> 0	<hr/> 0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0	<hr/> 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
PHYCAT16	<hr/> 0	<hr/> 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0



DUTIES15	0	0	0	0	0
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THETA		
PRESS15		DUTIES15
PRESS15	<u>0</u>	<u></u>
DUTIES15	0	0

ALPHA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA		
PRESS15		DUTIES15
<u>5</u>	<u>6</u>	

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA		
PRESS15		DUTIES15
<u>11</u>	<u>12</u>	
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
PHYCAT16
<u>36</u>

NU	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>

LAMBDA	
PHYCAT16	SINGLE
<u>0</u>	<u>0</u>
SINGLE	0

THETA

	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>0</u>
SINGLE	0	0

ALPHA	PHYCAT16	SINGLE
	<u>0</u>	<u>0</u>

BETA	PHYCAT16	SINGLE
PHYCAT16	<u>0</u>	<u>34</u>
SINGLE	0	0

PSI	PHYCAT16	SINGLE
PHYCAT16	<u>35</u>	<u>0</u>
SINGLE	0	0

STARTING VALUES FOR WITHIN

TAU	PHYCAT16
	<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

0.000            0.000

LAMBDA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15	DUTIES15	
<hr/>	<hr/>	
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		

CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	
PHYCAT16	SINGLE
0.000	0.000

LAMBDA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	1.000

THETA	
PHYCAT16	SINGLE
PHYCAT16	0.000
SINGLE	0.000

ALPHA	
PHYCAT16	SINGLE

	<u>0.000</u>	<u>0.000</u>
BETA		
PHYCAT16		SINGLE
PHYCAT16	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	0.000

	<u>0.000</u>	<u>0.000</u>
PSI		
PHYCAT16		SINGLE
PHYCAT16	<u>1.000</u>	<u>0.000</u>
SINGLE	0.000	698.403

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity

Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 35~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.450443D-04				
2	0.998650D-05	0.605015D-04			
3	-0.751753D-05	-0.221295D-04	0.213891D-03		
4	0.337096D-05	0.123677D-04	-0.913091D-05	0.473267D-04	
5	0.114689D-04	0.198178D-04	-0.196284D-04	0.220983D-04	0.197374D-03
6	-0.555036D-05	-0.214212D-04	0.419010D-04	-0.152090D-04	-0.365489D-04
7	-0.333488D-05	0.187223D-05	-0.312247D-04	-0.174161D-04	0.162966D-04
8	0.710899D-05	0.471857D-05	-0.283133D-05	0.155089D-04	0.254934D-04
9	-0.564193D-05	-0.219150D-05	0.604307D-05	-0.679517D-06	-0.159682D-04
10	0.776035D-05	0.115934D-05	-0.324399D-04	-0.547520D-05	-0.184009D-04
11	-0.460617D-05	0.611756D-05	-0.216409D-04	0.305938D-05	0.117515D-04
12	0.161083D-05	-0.230851D-05	-0.109619D-04	0.138505D-05	0.170004D-04
13	0.221618D-07	0.965125D-06	-0.186728D-05	-0.688466D-06	-0.189999D-05
14	0.986234D-06	0.715302D-06	-0.306156D-05	-0.125435D-05	0.378509D-06
15	0.351602D-06	0.148682D-06	-0.302641D-05	0.345760D-06	-0.586592D-06
16	-0.653069D-06	-0.107292D-05	-0.119772D-05	0.616356D-06	-0.266682D-05
17	-0.479544D-06	-0.207787D-05	0.448839D-05	0.339619D-05	0.677583D-05
18	-0.433099D-05	-0.468976D-05	0.463747D-05	-0.748098D-05	-0.279044D-05
19	0.100967D-05	0.722088D-06	-0.135747D-05	0.184210D-06	-0.828931D-06
20	0.286149D-06	-0.268096D-06	-0.428049D-06	-0.380131D-06	-0.160560D-05
21	-0.935232D-06	-0.436758D-07	0.422204D-06	0.300176D-05	0.479010D-05
22	0.153091D-06	0.193117D-05	0.429935D-06	-0.813825D-06	0.188944D-05
23	0.990528D-06	0.783698D-06	0.127224D-05	-0.125243D-06	0.212284D-05



24	0.147559D-05	0.164825D-05	-0.283540D-05	-0.238362D-06	-0.555044D-05
25	0.110987D-06	0.220400D-05	0.875835D-05	0.132832D-05	0.639911D-05
26	0.495976D-06	0.699539D-06	0.451603D-05	-0.203118D-06	0.492838D-05
27	-0.231491D-05	0.497378D-05	0.949321D-05	0.651086D-06	0.395054D-05
28	-0.982477D-06	-0.208136D-05	-0.119716D-05	-0.427223D-06	0.212272D-05
29	-0.125174D-05	-0.866093D-06	0.433778D-05	-0.202968D-06	0.910052D-05
30	-0.153446D-06	0.874625D-06	0.126341D-05	-0.170579D-05	-0.139400D-04
31	-0.989504D-06	0.862253D-06	0.155250D-05	0.637266D-06	0.237858D-05
32	-0.131059D-05	0.502656D-06	0.634159D-05	0.168632D-05	-0.603035D-05
33	-0.129256D-05	-0.375923D-05	-0.331197D-05	-0.111832D-05	-0.592332D-05
34	-0.152827D-06	0.418695D-07	0.558034D-06	-0.987336D-07	-0.131246D-06
35	-0.582619D-06	0.264002D-05	0.892718D-05	0.850574D-06	-0.437187D-05
36	-0.415975D-05	0.632357D-05	0.144618D-04	-0.129492D-04	0.180727D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.172647D-03				
7	-0.266316D-04	0.435433D-02			
8	-0.534878D-06	-0.362963D-03	0.190584D-02		
9	0.657310D-06	0.330672D-05	0.119593D-03	0.569198D-03	
10	-0.289864D-05	-0.354189D-04	-0.364778D-03	0.508960D-04	0.244623D-02
11	-0.521787D-05	-0.218437D-04	-0.854061D-04	0.235659D-05	-0.250764D-03
12	0.345748D-05	-0.595724D-04	0.162409D-03	-0.106016D-03	0.122055D-03
13	-0.129092D-05	-0.814298D-05	0.162675D-05	-0.139405D-05	0.114764D-05
14	-0.485532D-06	0.288169D-05	0.117342D-05	-0.139340D-05	0.444136D-05
15	0.555262D-06	-0.165657D-04	-0.203057D-05	0.236785D-05	0.752941D-05
16	0.185865D-05	-0.409339D-04	0.615836D-05	-0.344525D-05	0.982863D-05
17	0.339796D-05	-0.344259D-05	0.698843D-06	0.957472D-06	-0.278780D-05
18	0.390421D-05	-0.195380D-04	-0.124061D-05	0.251217D-05	-0.437151D-04
19	0.812792D-06	0.607148D-06	-0.344357D-05	0.183515D-05	0.782381D-05
20	0.233518D-05	-0.329494D-05	0.215381D-05	0.315364D-05	-0.318271D-05
21	0.417881D-06	-0.152741D-04	-0.605380D-05	0.161813D-05	0.385492D-05
22	-0.485288D-06	0.500207D-05	-0.630226D-06	0.251921D-05	-0.149274D-04
23	-0.234064D-05	-0.790547D-05	0.411627D-05	-0.561103D-05	0.218598D-04
24	-0.167755D-05	-0.657494D-05	0.514728D-05	0.310902D-05	0.100488D-04
25	-0.221372D-05	-0.255659D-04	0.545260D-05	0.312534D-05	0.147394D-04
26	-0.193265D-06	0.685134D-05	-0.264134D-05	0.506758D-05	-0.302649D-05
27	-0.275868D-05	0.186685D-04	0.135644D-05	-0.555465D-06	-0.166122D-04
28	0.296573D-05	0.595200D-05	-0.5944470D-05	-0.596126D-05	-0.907630D-05
29	0.227896D-05	0.175154D-04	-0.127359D-04	-0.487351D-05	-0.478107D-06
30	0.105602D-04	-0.117732D-04	0.513839D-06	-0.102354D-05	-0.213328D-04
31	-0.326110D-05	-0.611112D-05	-0.918487D-06	-0.634503D-05	-0.502018D-05

32	-0.288287D-05	-0.494117D-05	-0.907161D-06	-0.388562D-05	0.275747D-04
33	0.798951D-05	-0.826648D-04	0.214593D-04	0.440366D-05	-0.254438D-04
34	0.188918D-06	-0.138496D-05	0.979746D-06	0.803510D-07	-0.351959D-06
35	-0.363865D-05	0.413157D-04	-0.167690D-04	-0.113947D-04	-0.926040D-05
36	-0.931994D-05	0.762437D-03	0.143722D-03	-0.277821D-05	-0.519301D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.656298D-03				
12	0.129020D-03	0.779468D-03			
13	0.953040D-06	0.432193D-05	0.209710D-04		
14	0.185367D-05	0.191693D-05	0.446758D-05	0.131000D-04	
15	0.414863D-05	0.168850D-05	0.351830D-06	0.529011D-05	0.319538D-04
16	-0.977449D-05	0.406791D-05	-0.391642D-05	-0.438191D-05	0.582784D-06
17	0.299047D-05	0.755269D-05	-0.348268D-05	-0.415277D-05	-0.100663D-04
18	0.113870D-04	-0.309729D-05	0.257294D-05	0.543662D-06	0.119568D-05
19	0.539231D-05	0.424983D-06	0.955375D-06	0.225469D-05	0.445586D-06
20	0.192904D-05	-0.604167D-06	0.239863D-06	0.746135D-06	0.514752D-05
21	0.339686D-06	0.215988D-05	-0.859494D-06	-0.885275D-06	0.680583D-07
22	0.596106D-06	-0.400627D-05	0.788154D-06	0.381355D-06	0.513452D-06
23	-0.336069D-05	0.683762D-05	0.247371D-05	0.392639D-05	0.326137D-06
24	-0.118725D-05	0.523497D-06	0.165808D-05	0.334721D-05	0.101647D-04
25	-0.917480D-05	0.128809D-04	-0.216568D-05	-0.188123D-05	0.246680D-05
26	0.202373D-05	0.291363D-05	0.817004D-06	-0.412213D-06	0.742006D-06
27	0.901108D-05	0.283371D-05	-0.289830D-06	0.136146D-05	0.210485D-05
28	0.255387D-05	0.319280D-05	-0.316427D-05	-0.404332D-05	-0.561784D-06
29	-0.105820D-04	-0.413753D-05	-0.484968D-07	-0.267031D-05	-0.121443D-04
30	-0.133670D-05	-0.244773D-04	0.273132D-05	0.143283D-05	0.291091D-06
31	-0.432284D-05	-0.889870D-06	-0.656514D-06	-0.230127D-06	-0.132397D-05
32	-0.345329D-05	0.932000D-06	-0.450796D-06	-0.128592D-05	-0.190641D-05
33	0.331175D-05	0.205688D-04	0.170986D-05	0.106007D-05	0.185455D-05
34	-0.469901D-06	0.103088D-06	0.374788D-07	-0.440136D-07	0.897541D-07
35	0.193864D-05	0.137159D-04	0.230382D-05	-0.949148D-06	0.213181D-05
36	-0.430912D-04	-0.117658D-04	-0.680376D-06	-0.462314D-05	0.660678D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.487841D-04				
17	0.116888D-04	0.630620D-04			
18	-0.166705D-04	-0.375892D-04	0.455465D-03		

19	-0.191101D-05	-0.182856D-05	0.264073D-05	0.104680D-04	
20	-0.816346D-06	-0.456327D-05	0.523708D-06	0.301756D-05	0.133095D-04
21	0.305226D-05	0.110324D-04	-0.288261D-04	-0.233839D-05	-0.435215D-05
22	0.845234D-06	-0.337714D-05	-0.199164D-06	0.200389D-05	0.495570D-05
23	-0.285601D-05	0.871347D-07	0.230715D-05	0.498338D-05	0.123768D-05
24	-0.378490D-05	-0.690305D-05	-0.111070D-05	0.981190D-06	0.684357D-05
25	0.870894D-05	0.159970D-04	-0.477439D-04	-0.335641D-05	-0.110254D-05
26	-0.298872D-05	-0.138629D-05	0.432396D-05	0.225674D-05	0.579130D-05
27	-0.611325D-05	-0.439764D-05	0.195134D-04	0.497157D-05	0.711925D-05
28	0.619326D-05	0.383195D-05	-0.405905D-05	-0.351324D-05	-0.126112D-05
29	0.138141D-06	0.123627D-04	-0.327452D-05	-0.155115D-05	-0.502073D-05
30	-0.669971D-05	-0.249373D-04	0.646208D-04	0.186466D-05	0.143830D-05
31	0.944427D-06	0.612701D-05	-0.172261D-05	-0.252697D-05	-0.610836D-05
32	0.552625D-05	0.665783D-05	-0.160382D-04	-0.137521D-05	-0.428477D-05
33	0.443154D-05	-0.113219D-04	0.775171D-05	0.954537D-06	0.261420D-05
34	0.276709D-07	0.124201D-06	-0.335605D-06	0.396463D-07	0.811679D-07
35	-0.277038D-05	-0.895945D-06	-0.675340D-06	0.123484D-05	0.947819D-06
36	-0.824371D-05	0.109924D-04	-0.352868D-04	0.594190D-06	-0.108678D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.478314D-04				
22	-0.602924D-05	0.233607D-04			
23	-0.983671D-06	0.153737D-05	0.461718D-04		
24	-0.348143D-05	0.420557D-05	0.970980D-05	0.591000D-04	
25	0.235149D-04	-0.166035D-05	-0.575124D-05	-0.162017D-04	0.208208D-03
26	-0.462562D-05	0.106539D-04	0.268459D-05	0.129414D-04	-0.794296D-05
27	-0.507968D-05	0.100914D-04	0.146342D-04	0.375356D-04	-0.198725D-04
28	0.676978D-06	-0.178054D-05	-0.912245D-05	-0.160001D-05	-0.687116D-07
29	0.282476D-05	-0.238613D-05	-0.316886D-05	-0.137658D-04	0.415271D-05
30	-0.175195D-04	0.318747D-05	0.253165D-07	0.617838D-05	-0.443954D-04
31	0.825221D-05	-0.792101D-05	-0.265083D-05	-0.586492D-05	0.506413D-05
32	0.435626D-05	-0.447480D-05	-0.584304D-05	-0.203169D-04	0.221411D-04
33	-0.700260D-05	0.537064D-05	0.213642D-05	0.613831D-05	-0.109221D-04
34	-0.147663D-06	0.105069D-07	-0.177898D-06	0.486222D-07	-0.139247D-07
35	0.192364D-05	0.897359D-06	-0.146110D-05	0.243053D-05	0.745411D-05
36	0.110266D-06	0.259498D-05	-0.976209D-05	0.101266D-04	0.252986D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30

26	0.475433D-04					
27	0.414793D-04	0.387701D-03				
28	-0.859376D-06	-0.484615D-05	0.375061D-04			
29	-0.194230D-05	-0.877931D-05	0.796906D-05	0.516332D-04		
30	0.462519D-05	0.262705D-04	-0.699935D-05	-0.186009D-04	0.191126D-03	
31	-0.957239D-05	-0.967691D-05	0.279684D-05	0.130424D-04	-0.110208D-04	
32	-0.152164D-04	-0.649169D-04	0.421487D-05	0.198508D-04	-0.194265D-04	
33	0.631887D-05	0.118238D-04	-0.746335D-05	-0.373070D-04	0.567509D-04	
34	0.127488D-06	-0.649752D-06	0.831119D-07	0.393100D-07	-0.256733D-06	
35	0.243530D-05	0.390041D-05	-0.102911D-05	-0.316603D-05	0.222509D-05	
36	0.124488D-04	-0.126451D-04	-0.360120D-05	0.237367D-05	-0.165612D-04	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.422939D-04				
32	0.239115D-04	0.160904D-03			
33	-0.287785D-04	-0.530612D-04	0.285396D-03		
34	0.125956D-06	0.121168D-06	-0.770011D-06	0.732647D-06	
35	-0.507971D-05	0.311099D-05	-0.464554D-05	-0.129005D-05	0.167739D-03
36	0.304026D-05	0.529665D-05	-0.503990D-04	0.302996D-04	0.152833D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36
36	0.247260D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.191	1.000			
3	-0.077	-0.195	1.000		
4	0.073	0.231	-0.091	1.000	
5	0.122	0.181	-0.096	0.229	1.000
6	-0.063	-0.210	0.218	-0.168	-0.198
7	-0.008	0.004	-0.032	-0.038	0.018
8	0.024	0.014	-0.004	0.052	0.042
9	-0.035	-0.012	0.017	-0.004	-0.048
10	0.023	0.003	-0.045	-0.016	-0.026
11	-0.027	0.031	-0.058	0.017	0.033

12	0.009	-0.011	-0.027	0.007	0.043
13	0.001	0.027	-0.028	-0.022	-0.030
14	0.041	0.025	-0.058	-0.050	0.007
15	0.009	0.003	-0.037	0.009	-0.007
16	-0.014	-0.020	-0.012	0.013	-0.027
17	-0.009	-0.034	0.039	0.062	0.061
18	-0.030	-0.028	0.015	-0.051	-0.009
19	0.046	0.029	-0.029	0.008	-0.018
20	0.012	-0.009	-0.008	-0.015	-0.031
21	-0.020	-0.001	0.004	0.063	0.049
22	0.005	0.051	0.006	-0.024	0.028
23	0.022	0.015	0.013	-0.003	0.022
24	0.029	0.028	-0.025	-0.005	-0.051
25	0.001	0.020	0.042	0.013	0.032
26	0.011	0.013	0.045	-0.004	0.051
27	-0.018	0.032	0.033	0.005	0.014
28	-0.024	-0.044	-0.013	-0.010	0.025
29	-0.026	-0.015	0.041	-0.004	0.090
30	-0.002	0.008	0.006	-0.018	-0.072
31	-0.023	0.017	0.016	0.014	0.026
32	-0.015	0.005	0.034	0.019	-0.034
33	-0.011	-0.029	-0.013	-0.010	-0.025
34	-0.027	0.006	0.045	-0.017	-0.011
35	-0.007	0.026	0.047	0.010	-0.024
36	-0.012	0.016	0.020	-0.038	0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.031	1.000			
8	-0.001	-0.126	1.000		
9	0.002	0.002	0.115	1.000	
10	-0.004	-0.011	-0.169	0.043	1.000
11	-0.016	-0.013	-0.076	0.004	-0.198
12	0.009	-0.032	0.133	-0.159	0.088
13	-0.021	-0.027	0.008	-0.013	0.005
14	-0.010	0.012	0.007	-0.016	0.025
15	0.007	-0.044	-0.008	0.018	0.027
16	0.020	-0.089	0.020	-0.021	0.028
17	0.033	-0.007	0.002	0.005	-0.007
18	0.014	-0.014	-0.001	0.005	-0.041
19	0.019	0.003	-0.024	0.024	0.049

20	0.049	-0.014	0.014	0.036	-0.018
21	0.005	-0.033	-0.020	0.010	0.011
22	-0.008	0.016	-0.003	0.022	-0.062
23	-0.026	-0.018	0.014	-0.035	0.065
24	-0.017	-0.013	0.015	0.017	0.026
25	-0.012	-0.027	0.009	0.009	0.021
26	-0.002	0.015	-0.009	0.031	-0.009
27	-0.011	0.014	0.002	-0.001	-0.017
28	0.037	0.015	-0.035	-0.041	-0.030
29	0.024	0.037	-0.041	-0.028	-0.001
30	0.058	-0.013	0.001	-0.003	-0.031
31	-0.038	-0.014	-0.003	-0.041	-0.016
32	-0.017	-0.006	-0.002	-0.013	0.044
33	0.036	-0.074	0.029	0.011	-0.030
34	0.017	-0.025	0.026	0.004	-0.008
35	-0.021	0.048	-0.030	-0.037	-0.014
36	-0.014	0.232	0.066	-0.002	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.180	1.000			
13	0.008	0.034	1.000		
14	0.020	0.019	0.270	1.000	
15	0.029	0.011	0.014	0.259	1.000
16	-0.055	0.021	-0.122	-0.173	0.015
17	0.015	0.034	-0.096	-0.144	-0.224
18	0.021	-0.005	0.026	0.007	0.010
19	0.065	0.005	0.064	0.193	0.024
20	0.021	-0.006	0.014	0.057	0.250
21	0.002	0.011	-0.027	-0.035	0.002
22	0.005	-0.030	0.036	0.022	0.019
23	-0.019	0.036	0.079	0.160	0.008
24	-0.006	0.002	0.047	0.120	0.234
25	-0.025	0.032	-0.033	-0.036	0.030
26	0.011	0.015	0.026	-0.017	0.019
27	0.018	0.005	-0.003	0.019	0.019
28	0.016	0.019	-0.113	-0.182	-0.016
29	-0.057	-0.021	-0.001	-0.103	-0.299
30	-0.004	-0.063	0.043	0.029	0.004
31	-0.026	-0.005	-0.022	-0.010	-0.036
32	-0.011	0.003	-0.008	-0.028	-0.027

33	0.008	0.044	0.022	0.017	0.019
34	-0.021	0.004	0.010	-0.014	0.019
35	0.006	0.038	0.039	-0.020	0.029
36	-0.034	-0.008	-0.003	-0.026	0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.211	1.000			
18	-0.112	-0.222	1.000		
19	-0.085	-0.071	0.038	1.000	
20	-0.032	-0.158	0.007	0.256	1.000
21	0.063	0.201	-0.195	-0.105	-0.172
22	0.025	-0.088	-0.002	0.128	0.281
23	-0.060	0.002	0.016	0.227	0.050
24	-0.070	-0.113	-0.007	0.039	0.244
25	0.086	0.140	-0.155	-0.072	-0.021
26	-0.062	-0.025	0.029	0.101	0.230
27	-0.044	-0.028	0.046	0.078	0.099
28	0.145	0.079	-0.031	-0.177	-0.056
29	0.003	0.217	-0.021	-0.067	-0.192
30	-0.069	-0.227	0.219	0.042	0.029
31	0.021	0.119	-0.012	-0.120	-0.257
32	0.062	0.066	-0.059	-0.034	-0.093
33	0.038	-0.084	0.022	0.017	0.042
34	0.005	0.018	-0.018	0.014	0.026
35	-0.031	-0.009	-0.002	0.029	0.020
36	-0.024	0.028	-0.033	0.004	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.180	1.000			
23	-0.021	0.047	1.000		
24	-0.065	0.113	0.186	1.000	
25	0.236	-0.024	-0.059	-0.146	1.000
26	-0.097	0.320	0.057	0.244	-0.080
27	-0.037	0.106	0.109	0.248	-0.070
28	0.016	-0.060	-0.219	-0.034	-0.001
29	0.057	-0.069	-0.065	-0.249	0.040

30	-0.183	0.048	0.000	0.058	-0.223
31	0.183	-0.252	-0.060	-0.117	0.054
32	0.050	-0.073	-0.068	-0.208	0.121
33	-0.060	0.066	0.019	0.047	-0.045
34	-0.025	0.003	-0.031	0.007	-0.001
35	0.021	0.014	-0.017	0.024	0.040
36	0.000	0.011	-0.029	0.026	0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.306	1.000			
28	-0.020	-0.040	1.000		
29	-0.039	-0.062	0.181	1.000	
30	0.049	0.097	-0.083	-0.187	1.000
31	-0.213	-0.076	0.070	0.279	-0.123
32	-0.174	-0.260	0.054	0.218	-0.111
33	0.054	0.036	-0.072	-0.307	0.243
34	0.022	-0.039	0.016	0.006	-0.022
35	0.027	0.015	-0.013	-0.034	0.012
36	0.036	-0.013	-0.012	0.007	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.290	1.000			
33	-0.262	-0.248	1.000		
34	0.023	0.011	-0.053	1.000	
35	-0.060	0.019	-0.021	-0.116	1.000
36	0.009	0.008	-0.060	0.712	0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36
36	1.000

TECHNICAL 8 OUTPUT



TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.013	36
200	1.011	35
300	1.008	8
400	1.009	33
500	1.005	3
600	1.005	35
700	1.006	35
800	1.002	35
900	1.001	35
1000	1.000	1

Combined effects of multiple practices and a single practice

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns	8
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## PROPORTION OF DATA PRESENT

	Covariance	Coverage			
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		
PRESS15	0.915	0.915	0.914	0.915	

DUTIES15      0.915      0.915      0.915      0.915      0.915

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16  
 Category 1    0.881      4884.000  
 Category 2    0.119      662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL	43.091	0.291	0.000	22.41%	0.000	15.000	35.000

	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-17.500 70.780

Posterior Predictive P-Value 0.105

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON					
PHY15		0.973	0.071	0.000	0.839	1.106 *
CHOICE15		-0.068	0.025	0.003	-0.120	-0.020 *
BULLY15		0.032	0.048	0.261	-0.063	0.122
DUTIES15		-0.031	0.028	0.133	-0.087	0.024
PRESS15		-0.032	0.026	0.114	-0.081	0.022
KES15		0.226	0.045	0.000	0.132	0.315 *
KES15	WITH					
PHY15		0.052	0.004	0.000	0.044	0.059 *
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073 *
BULLY15		0.058	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.085	0.116 *
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092 *
PHY15	WITH					
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022 *
BULLY15		0.012	0.003	0.001	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.026	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.072	-0.044 *
PRESS15		-0.087	0.015	0.000	-0.117	-0.060 *
DUTIES15		0.173	0.014	0.000	0.145	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.119 *
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066 *
PRESS15	WITH					
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158 *
Means						
PHY15		0.002	0.006	0.371	-0.011	0.015
KES15		0.001	0.007	0.431	-0.014	0.015
CHOICE15		-0.002	0.015	0.457	-0.031	0.027
BULLY15		0.000	0.007	0.471	-0.013	0.014
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.013	0.474	-0.028	0.026
Variances						
PHY15		0.233	0.005	0.000	0.224	0.242 *
KES15		0.290	0.006	0.000	0.278	0.301 *

CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY						
ACC		1.000	0.000	0.000	1.000	1.000	
ACT		3.588	0.916	0.000	1.925	5.426	*
EAT		4.161	0.831	0.000	2.836	6.179	*
ALC		2.846	0.841	0.000	1.458	4.639	*
PHY		3.780	0.819	0.000	2.485	5.684	*
PSY		3.884	0.817	0.000	2.618	5.768	*
SMO		4.378	1.003	0.000	2.726	6.678	*
TER		3.113	0.828	0.000	1.748	5.035	*
BEN		2.193	0.741	0.000	0.892	3.823	*
HPR		4.223	0.853	0.000	2.890	6.289	*
SPR		3.969	0.820	0.000	2.610	5.814	*
CUL		3.584	0.782	0.000	2.341	5.380	*
FEL		79.352	31.854	0.002	23.998	153.782	*

SING	BY						
ACT		1.000	0.000	0.000	1.000	1.000	
PHYCAT16	ON						
PROG		-0.486	0.221	0.005	-0.962	-0.084	*
SING		-0.016	0.136	0.439	-0.304	0.258	

PROG	WITH					
SING		0.000	0.030	0.499	-0.056	0.062

Intercepts							
ACC		0.465	0.073	0.000	0.317	0.607	*
ACT		0.117	0.143	0.202	-0.156	0.414	
EAT		0.310	0.152	0.022	0.014	0.635	*
ALC		0.055	0.154	0.375	-0.241	0.359	
PHY		0.208	0.151	0.074	-0.094	0.526	
PSY		0.096	0.152	0.255	-0.202	0.418	
SMO		0.322	0.188	0.045	-0.061	0.701	
TER		0.188	0.155	0.103	-0.117	0.489	
BEN		0.043	0.137	0.381	-0.228	0.322	
HPR		0.225	0.160	0.085	-0.092	0.549	
SPR		0.216	0.151	0.077	-0.074	0.511	



CUL	0.023	0.145	0.443	-0.260	0.315	
FEL	42.656	5.566	0.000	31.506	53.428	*
Thresholds						
PHYCAT16\$1	1.332	0.041	0.000	1.254	1.416	*
Variances						
PROG	0.056	0.018	0.000	0.032	0.105	*
SING	0.213	0.117	0.000	0.080	0.500	*
Residual Variances						
PHYCAT16	0.013	0.011	0.000	0.001	0.043	*
ACC	0.252	0.052	0.000	0.174	0.374	*
ACT	0.267	0.134	0.000	0.021	0.532	*
EAT	0.299	0.079	0.000	0.182	0.501	*
ALC	0.877	0.184	0.000	0.610	1.313	*
PHY	0.468	0.106	0.000	0.312	0.722	*
PSY	0.422	0.099	0.000	0.271	0.654	*
SMO	0.812	0.186	0.000	0.534	1.249	*
TER	0.770	0.162	0.000	0.529	1.156	*
BEN	0.770	0.155	0.000	0.528	1.141	*
HPR	0.377	0.095	0.000	0.237	0.611	*
SPR	0.420	0.097	0.000	0.275	0.651	*
CUL	0.445	0.099	0.000	0.294	0.687	*
FEL	1462.325	310.250	0.000	1028.514	2245.144	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		Significance
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.366	0.462	*
CHOICE15		-0.063	0.023	0.003	-0.111	-0.019	*
BULLY15		0.014	0.021	0.261	-0.027	0.053	
DUTIES15		-0.025	0.023	0.133	-0.070	0.019	
PRESS15		-0.028	0.023	0.114	-0.071	0.019	
KES15		0.108	0.021	0.000	0.064	0.150	*

KES15	WITH					
PHY15		0.198	0.014	0.000	0.171	0.225 *
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131 *
BULLY15		0.219	0.013	0.000	0.193	0.245 *
PRESS15		0.186	0.013	0.000	0.159	0.212 *
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185 *
PHY15	WITH					
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044 *
BULLY15		0.050	0.014	0.001	0.022	0.078 *
PRESS15		0.081	0.014	0.000	0.054	0.107 *
DUTIES15		-0.080	0.014	0.000	-0.109	-0.052 *
CHOICE15	WITH					
BULLY15		-0.115	0.014	0.000	-0.141	-0.087 *
PRESS15		-0.084	0.014	0.000	-0.112	-0.058 *
DUTIES15		0.179	0.014	0.000	0.152	0.205 *
BULLY15	WITH					
PRESS15		0.214	0.013	0.000	0.189	0.239 *
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147 *
PRESS15	WITH					
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173 *
Means						
PHY15		0.005	0.013	0.371	-0.022	0.031
KES15		0.002	0.014	0.431	-0.026	0.028
CHOICE15		-0.002	0.014	0.457	-0.030	0.026
BULLY15		0.001	0.014	0.471	-0.026	0.029
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.014	0.474	-0.030	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
PROG	BY					

ACC	0.424	0.060	0.000	0.327	0.553	*
ACT	0.775	0.124	0.000	0.505	1.002	*
EAT	0.877	0.042	0.000	0.770	0.936	*
ALC	0.588	0.109	0.000	0.341	0.755	*
PHY	0.798	0.060	0.000	0.656	0.885	*
PSY	0.819	0.055	0.000	0.688	0.901	*
SMO	0.758	0.071	0.000	0.577	0.863	*
TER	0.644	0.097	0.000	0.411	0.790	*
BEN	0.510	0.121	0.000	0.236	0.702	*
HPR	0.856	0.048	0.000	0.734	0.922	*
SPR	0.825	0.055	0.000	0.691	0.905	*
CUL	0.787	0.065	0.000	0.625	0.881	*
FEL	0.440	0.132	0.002	0.145	0.668	*
SING BY						
ACT	0.422	0.111	0.000	0.247	0.665	*
PHYCAT16 ON						
PROG	-0.685	0.212	0.005	-0.970	-0.159	*
SING	-0.051	0.316	0.439	-0.704	0.540	
PROG WITH						
SING	0.002	0.223	0.499	-0.420	0.449	
Intercepts						
ACC	0.841	0.151	0.000	0.534	1.124	*
ACT	0.108	0.129	0.202	-0.141	0.372	
EAT	0.274	0.133	0.022	0.012	0.556	*
ALC	0.048	0.131	0.375	-0.205	0.302	
PHY	0.185	0.133	0.074	-0.087	0.461	
PSY	0.084	0.132	0.255	-0.177	0.354	
SMO	0.232	0.136	0.045	-0.042	0.505	
TER	0.163	0.133	0.103	-0.094	0.412	
BEN	0.040	0.132	0.381	-0.207	0.300	
HPR	0.189	0.135	0.085	-0.073	0.463	
SPR	0.186	0.131	0.077	-0.064	0.455	
CUL	0.021	0.131	0.443	-0.230	0.282	
FEL	0.989	0.168	0.000	0.670	1.345	*
Thresholds						
PHYCAT16\$1	7.629	2.628	0.000	4.851	15.271	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	

SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.422	0.231	0.000	0.050	0.892	*
ACC	0.820	0.053	0.000	0.694	0.893	*
ACT	0.216	0.112	0.000	0.019	0.457	*
EAT	0.232	0.072	0.000	0.124	0.408	*
ALC	0.654	0.120	0.000	0.429	0.883	*
PHY	0.363	0.092	0.000	0.216	0.570	*
PSY	0.328	0.088	0.000	0.188	0.526	*
SMO	0.426	0.103	0.000	0.256	0.668	*
TER	0.585	0.118	0.000	0.377	0.831	*
BEN	0.740	0.116	0.000	0.508	0.944	*
HPR	0.268	0.080	0.000	0.149	0.462	*
SPR	0.319	0.088	0.000	0.181	0.523	*
CUL	0.381	0.097	0.000	0.224	0.609	*
FEL	0.806	0.110	0.000	0.554	0.977	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.021	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.578	0.231	0.000	0.108	0.950
ACC	0.180	0.053	0.000	0.107	0.306
ACT	0.784	0.112	0.000	0.543	0.981
EAT	0.768	0.072	0.000	0.592	0.876
ALC	0.346	0.120	0.000	0.117	0.571
PHY	0.637	0.092	0.000	0.430	0.784
PSY	0.672	0.088	0.000	0.474	0.812
SMO	0.574	0.103	0.000	0.332	0.744
TER	0.415	0.118	0.000	0.169	0.623
BEN	0.260	0.116	0.000	0.056	0.492
HPR	0.732	0.080	0.000	0.538	0.851

SPR	0.681	0.088	0.000	0.477	0.819
CUL	0.619	0.097	0.000	0.391	0.776
FEL	0.194	0.110	0.000	0.023	0.446

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16
_____
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	0	0	0	0

NU	PRESS15	DUTIES15
	_____	_____
	0	0

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
	_____	_____

PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
	_____	_____
PRESS15	0	
DUTIES15	0	0

	ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	1	2	3	4

	ALPHA	
	PRESS15	DUTIES15
	_____	_____
	5	6

	BETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0	7	8	9	10

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

PHYCAT16

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NU

PHYCAT16	ACC	ACT	EAT	ALC
0	34	35	36	37

NU

PHY	PSY	SMO	TER	BEN
38	39	40	41	42

NU

HPR	SPR	CUL	FEL
43	44	45	46

LAMBDA

PROG	SING	PHYCAT16
------	------	----------

PHYCAT16	0	0	0
ACC	0	0	0
ACT	47	0	0
EAT	48	0	0
ALC	49	0	0
PHY	50	0	0
PSY	51	0	0
SMO	52	0	0
TER	53	0	0
BEN	54	0	0
HPR	55	0	0
SPR	56	0	0
CUL	57	0	0
FEL	58	0	0

THETA

PHYCAT16	ACC	ACT	EAT	ALC
----------	-----	-----	-----	-----



PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA				
	PHY	PSY	SMO	TER	BEN
	_____	_____	_____	_____	_____
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA			
	HPR	SPR	CUL	FEL
	_____	_____	_____	_____
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

	ALPHA		
	PROG	SING	PHYCAT16
	_____	_____	_____
	0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

TAU	
PHYCAT16	
	<u>0.000</u>

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.116</u>	<u>0.145</u>	<u>0.541</u>	<u>0.119</u>
PHY15	0.000	0.116	0.145	0.541	0.119
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/>
1.110

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.485	0.224	0.466	0.673

NU	PHY	PSY	SMO	TER	BEN
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.342	0.251	0.347	0.385	0.212

NU	HPR	SPR	CUL	FEL
	<hr/>	<hr/>	<hr/>	<hr/>
	0.409	0.433	-0.067	45.726

LAMBDA			
PROG		SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	1.000
ACC	1.000	0.000	0.000
ACT	1.000	1.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	0.000	0.000
PSY	1.000	0.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000
BEN	1.000	0.000	0.000

HPR	1.000	0.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	0.000	0.000
FEL	1.000	0.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
<hr/>					
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
<hr/>					
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
<hr/>				
HPR	0.426			
SPR	0.000	0.361		

CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG		SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000

	BETA		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

	PSI		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	1.000		
SING	0.000	1.000	
PHYCAT16	0.000	0.000	1.000

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity

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Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.411731D-04				
2	0.918831D-05	0.541375D-04			
3	-0.847397D-05	-0.192261D-04	0.220873D-03		
4	0.153910D-05	0.975417D-05	-0.126579D-04	0.461423D-04	
5	0.710977D-05	0.190814D-04	-0.193886D-04	0.186937D-04	0.190730D-03
6	-0.569500D-05	-0.160766D-04	0.360821D-04	-0.159731D-04	-0.417623D-04
7	0.552672D-05	0.460029D-05	0.240952D-05	-0.806134D-05	-0.260344D-04
8	0.706286D-05	-0.439201D-05	-0.689658D-05	-0.539287D-05	-0.308397D-04
9	0.305435D-05	0.582229D-05	0.380985D-05	0.675703D-05	0.179167D-05
10	0.580810D-08	0.127925D-04	0.181757D-04	0.120313D-04	0.123372D-04
11	0.354089D-05	0.169805D-05	0.109572D-06	0.955498D-06	0.152062D-04
12	-0.338277D-05	-0.212039D-05	-0.385543D-05	-0.681082D-05	0.149842D-04
13	0.425142D-06	0.719459D-06	-0.150728D-05	0.152841D-06	0.150585D-05
14	-0.696909D-06	0.125588D-05	-0.126726D-05	-0.406735D-07	-0.807918D-06
15	-0.274059D-06	0.411387D-06	-0.338532D-05	0.803520D-06	0.157901D-05
16	-0.180672D-05	-0.141611D-05	-0.444188D-05	0.604673D-06	-0.388561D-05
17	-0.214709D-06	-0.140422D-05	0.646663D-05	-0.161488D-05	-0.538307D-06

18	0.223719D-05	0.968507D-05	-0.986167D-05	0.179709D-05	0.439642D-05
19	-0.662116D-06	-0.502884D-06	0.992409D-06	0.440365D-06	-0.290631D-05
20	0.645703D-08	-0.695218D-06	-0.130845D-05	-0.162685D-06	-0.121461D-05
21	-0.173331D-06	0.880325D-06	0.266194D-05	0.151864D-05	0.191202D-05
22	-0.797762D-06	-0.184903D-06	-0.112646D-05	0.887977D-06	0.572279D-06
23	-0.385614D-06	0.632535D-06	-0.193329D-05	0.400375D-06	-0.253752D-05
24	0.554010D-06	-0.777360D-06	0.248452D-05	-0.168086D-05	0.718400D-06
25	-0.398257D-05	0.533420D-05	-0.205488D-05	-0.874247D-06	0.929009D-05
26	-0.217144D-06	-0.985077D-06	0.204452D-05	0.977851D-06	-0.291739D-05
27	-0.153206D-05	-0.901198D-05	0.115319D-04	0.205648D-05	-0.110978D-04
28	-0.117639D-05	-0.718676D-06	0.195759D-06	0.772408D-07	0.707273D-07
29	-0.191706D-05	-0.119750D-05	0.298850D-05	-0.170992D-05	-0.488109D-05
30	0.128574D-05	0.280421D-05	-0.331716D-05	0.124074D-05	-0.649187D-05
31	0.164120D-06	0.796425D-06	-0.104133D-06	-0.250416D-06	0.905551D-08
32	-0.141950D-05	0.384168D-05	0.157441D-06	-0.123434D-05	0.414508D-05
33	0.259410D-05	-0.321968D-05	-0.215118D-04	0.399733D-05	0.754148D-06
34	-0.189519D-04	-0.116758D-04	0.180943D-04	-0.691104D-05	0.407568D-04
35	-0.178009D-04	0.259264D-04	0.726281D-04	0.217476D-04	0.430541D-04
36	0.504394D-05	0.167571D-04	0.402277D-04	0.215130D-04	0.121127D-03
37	0.105547D-04	-0.297386D-04	0.410127D-04	-0.135864D-04	0.733299D-04
38	-0.633321D-05	0.149011D-05	0.503615D-04	0.139509D-04	0.170466D-04
39	-0.153438D-04	0.417734D-05	-0.563307D-04	0.101627D-04	0.745664D-04
40	0.368969D-04	0.111167D-04	0.305242D-04	0.230303D-04	0.678932D-04
41	-0.211552D-04	0.406016D-04	-0.801633D-05	0.170923D-04	0.643602D-04
42	0.390542D-04	-0.285812D-04	0.112312D-03	-0.586216D-05	0.335745D-04
43	0.267863D-04	0.272636D-04	0.378404D-04	0.288085D-04	0.136414D-03
44	-0.195755D-04	0.952271D-05	0.496273D-05	0.159692D-04	0.122945D-03
45	0.309271D-05	0.635336D-05	-0.182882D-05	0.281365D-05	0.110523D-03
46	-0.687468D-04	0.711748D-03	0.316015D-03	0.133414D-02	0.284009D-02
47	-0.110032D-03	0.122301D-05	-0.275167D-03	-0.286315D-03	0.213033D-03
48	0.153237D-03	0.194094D-03	-0.171618D-03	0.125458D-03	0.749094D-04
49	-0.131626D-06	0.150489D-03	0.423897D-04	-0.302731D-04	0.401503D-03
50	0.858051D-04	0.233704D-03	-0.449894D-03	0.846434D-04	-0.180410D-04
51	0.506699D-04	0.203537D-03	-0.557878D-03	0.221015D-03	0.214783D-03
52	0.175148D-03	0.106778D-03	-0.974989D-04	-0.106351D-03	-0.865906D-05
53	-0.300498D-05	0.127505D-03	-0.449481D-03	-0.232265D-04	-0.127731D-03
54	0.207810D-03	0.332898D-03	-0.488976D-03	0.529925D-04	0.191988D-03
55	0.218543D-03	0.750457D-04	-0.194972D-03	-0.117678D-03	0.178343D-03
56	0.369155D-03	0.329546D-03	-0.289703D-03	0.116727D-03	0.192218D-03
57	0.108436D-03	0.280743D-03	-0.499235D-03	-0.499523D-04	0.183121D-03
58	-0.981366D-03	0.669072D-02	-0.186365D-01	0.890873D-02	0.870302D-02
59	-0.600709D-05	0.705717D-05	0.375868D-04	0.222503D-05	-0.404137D-04
60	0.425479D-04	0.855283D-04	-0.732270D-04	0.275986D-04	0.788469D-04
61	0.667811D-05	-0.119582D-05	-0.273985D-04	-0.218827D-04	-0.300736D-04

62	0.993032D-05	0.745109D-04	0.168770D-05	0.660295D-05	-0.907696D-05
63	-0.350019D-05	-0.313647D-04	0.570080D-04	-0.390322D-05	0.456574D-05
64	0.523714D-04	0.245433D-04	0.196140D-04	-0.853915D-05	0.451649D-05
65	0.152765D-05	-0.898328D-05	0.243271D-04	0.131282D-04	0.453404D-04
66	0.680920D-04	-0.202040D-04	0.888263D-05	0.159137D-05	-0.973225D-04
67	-0.851740D-05	-0.274167D-04	-0.633202D-04	-0.869837D-05	-0.715351D-04
68	-0.560258D-05	0.108659D-04	0.229178D-04	-0.398305D-05	-0.163760D-04
69	-0.877469D-05	-0.277962D-05	-0.385305D-04	-0.427774D-05	0.362637D-04
70	-0.216588D-04	-0.212126D-04	0.791976D-04	-0.150781D-04	-0.149331D-04
71	-0.117971D-02	0.735826D-01	-0.900813D-01	0.101233D+00	0.118872D+00
72	0.176671D-04	0.941000D-05	-0.455090D-05	-0.531325D-05	-0.192048D-04
73	0.178395D-04	0.293670D-04	0.217498D-04	-0.102000D-04	-0.403405D-04
74	-0.959524D-06	-0.305849D-05	0.413453D-05	0.329461D-05	-0.202761D-05
75	0.736860D-05	0.620213D-05	0.100963D-04	0.113962D-04	-0.616965D-05
76	-0.922436D-05	-0.348156D-04	0.142129D-04	0.851285D-05	-0.327083D-04
77	-0.271864D-05	-0.500840D-05	0.820255D-05	-0.576069D-07	0.327768D-05
78	0.317327D-05	0.246416D-05	-0.972774D-05	-0.689536D-05	0.118735D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177379D-03				
7	0.248138D-04	0.499121D-02			
8	-0.257777D-04	-0.366823D-03	0.204251D-02		
9	-0.156185D-04	0.259354D-04	0.133346D-03	0.633403D-03	
10	0.503295D-05	-0.134441D-03	-0.312281D-03	0.159691D-04	0.227861D-02
11	-0.125309D-04	-0.104340D-04	-0.163317D-03	0.148951D-04	-0.215228D-03
12	0.131431D-04	0.573535D-04	0.192276D-03	-0.106592D-03	0.789776D-04
13	0.186568D-07	0.101282D-04	0.215829D-05	-0.268141D-05	-0.567852D-06
14	-0.704389D-08	0.208872D-05	-0.537576D-05	-0.439346D-05	0.104592D-04
15	-0.218202D-05	-0.135652D-04	-0.410891D-05	-0.376719D-05	0.920427D-05
16	-0.158641D-05	-0.103290D-04	0.817251D-05	0.203316D-05	0.198885D-05
17	-0.118340D-05	0.718984D-05	-0.515406D-05	-0.114770D-05	0.416524D-05
18	-0.382913D-05	-0.141991D-04	-0.198420D-04	-0.237109D-04	-0.202890D-04
19	0.884604D-06	-0.952338D-05	0.294120D-05	0.647794D-06	0.414100D-05
20	0.615927D-06	-0.202357D-06	-0.169585D-05	0.981432D-07	0.646992D-05
21	-0.147707D-05	0.103989D-04	-0.235901D-05	0.382307D-05	-0.114737D-04
22	-0.294496D-05	0.738078D-05	0.829252D-06	-0.109006D-05	0.877171D-06
23	-0.127513D-05	0.329104D-05	0.194842D-04	0.233532D-05	0.106633D-04
24	0.218961D-05	-0.578794D-05	-0.291931D-05	-0.587753D-05	0.904433D-05
25	0.179434D-05	-0.244856D-04	-0.788690D-05	0.155174D-05	0.152112D-04
26	-0.338547D-05	0.327960D-05	-0.586367D-05	0.561855D-06	-0.318059D-05
27	0.959555D-06	-0.265301D-04	-0.997824D-05	0.812678D-05	0.314476D-04

28	0.112167D-05	0.227210D-04	-0.106384D-04	-0.200173D-05	-0.545113D-05
29	0.335885D-05	0.170145D-04	-0.168780D-04	0.596095D-06	0.787231D-05
30	-0.109265D-05	-0.309413D-04	-0.999717D-05	-0.371224D-05	-0.163710D-04
31	0.320777D-05	0.181331D-05	0.101251D-06	0.398476D-06	0.350974D-05
32	0.199510D-05	0.378527D-04	0.117704D-05	0.127733D-04	-0.734794D-06
33	-0.130255D-05	0.120845D-04	-0.127030D-04	0.484331D-05	-0.834120D-05
34	0.233166D-04	-0.781644D-04	0.308662D-04	-0.698006D-04	-0.693786D-04
35	0.102879D-03	-0.293773D-04	0.112941D-04	0.755715D-04	-0.756710D-04
36	0.632164D-04	-0.611776D-04	0.255083D-03	0.210878D-03	0.792755D-04
37	0.106472D-03	-0.561818D-03	0.252823D-03	0.822553D-04	-0.328191D-06
38	0.615636D-04	0.437703D-03	0.800532D-04	0.144929D-03	0.665549D-04
39	0.115925D-03	0.479700D-04	0.137541D-03	0.164083D-03	-0.475442D-04
40	0.606881D-04	-0.269834D-03	0.399858D-03	0.552061D-04	0.376911D-04
41	0.198484D-04	-0.414283D-03	0.176971D-03	0.145249D-03	-0.254003D-04
42	-0.460149D-04	-0.104168D-03	0.471744D-04	0.421012D-04	0.614895D-04
43	0.344946D-04	-0.201960D-03	0.407861D-03	0.150880D-03	-0.505961D-05
44	0.582072D-04	-0.115518D-03	0.224679D-03	0.137946D-03	-0.455286D-04
45	0.427876D-04	-0.486949D-03	0.300170D-03	0.150485D-03	-0.911680D-04
46	0.169214D-03	-0.339982D-02	0.439849D-02	0.241272D-02	0.968161D-02
47	0.315806D-03	-0.159870D-02	0.182969D-02	0.543686D-03	0.217346D-03
48	0.171039D-03	-0.170018D-02	0.148692D-02	-0.521056D-04	0.227016D-02
49	-0.929795D-05	0.214054D-02	0.158399D-02	-0.318540D-03	0.279097D-03
50	-0.686718D-04	-0.117310D-02	0.845185D-03	0.195634D-04	0.244361D-02
51	0.190024D-03	-0.223021D-02	0.120214D-02	0.237602D-03	0.796570D-03
52	0.168659D-03	0.103480D-02	0.136237D-02	-0.249703D-03	0.962907D-03
53	0.597195D-04	-0.104841D-02	0.817836D-03	-0.582641D-03	0.693661D-03
54	0.347816D-04	0.118643D-02	-0.187314D-03	-0.532850D-03	0.200171D-02
55	0.137199D-03	-0.930502D-03	0.762699D-03	0.562078D-03	0.166057D-02
56	0.669850D-04	-0.117760D-02	0.171298D-02	0.289476D-03	0.972667D-04
57	0.283101D-03	-0.212247D-02	0.108190D-02	0.151486D-03	0.193340D-02
58	0.549522D-02	-0.102528D+00	0.596022D-01	0.390974D-02	0.175375D-01
59	0.271557D-04	0.361288D-04	0.489852D-04	0.337138D-04	0.497286D-04
60	-0.117911D-03	-0.170103D-03	-0.153423D-03	-0.437659D-04	0.935106D-05
61	0.523995D-04	0.514279D-04	-0.170019D-04	0.663824D-04	0.252333D-05
62	-0.348009D-04	0.322852D-03	-0.113901D-03	0.627471D-04	0.562380D-04
63	0.133550D-04	0.162725D-03	0.101493D-03	-0.583279D-05	-0.361633D-04
64	0.345823D-04	0.197197D-03	0.963221D-04	0.149169D-04	-0.735666D-04
65	-0.122753D-04	-0.226886D-03	-0.132534D-03	0.119303D-03	0.595132D-04
66	0.422743D-04	0.490145D-05	0.259274D-03	-0.104961D-03	-0.272044D-03
67	0.122400D-04	-0.230218D-03	0.824169D-04	-0.464516D-04	-0.203099D-03
68	0.571044D-04	-0.222927D-03	0.368312D-04	-0.106979D-03	0.279833D-04
69	-0.140059D-04	-0.853928D-04	0.154973D-04	0.113113D-03	-0.620168D-04
70	-0.193606D-04	0.365449D-03	-0.305988D-04	0.499886D-04	-0.299075D-04
71	-0.126812D+00	0.140951D+00	0.115572D+00	-0.191340D+00	-0.230976D+00

72	0.547163D-04	0.372969D-03	-0.604263D-03	-0.418340D-03	-0.382494D-03
73	0.211973D-04	-0.109019D-03	0.454753D-04	-0.134285D-03	0.854514D-04
74	-0.829592D-05	0.174159D-04	-0.268122D-04	0.323779D-05	-0.224874D-04
75	-0.903107D-05	-0.191960D-05	0.251339D-04	-0.329488D-04	-0.192397D-04
76	0.878438D-04	0.227217D-03	0.341438D-04	0.912467D-04	-0.939038D-04
77	0.202438D-05	-0.362916D-05	-0.147860D-04	0.926603D-05	0.160758D-05
78	0.103960D-04	0.102659D-02	0.699216D-04	-0.107194D-04	0.409237D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.679493D-03				
12	0.131744D-03	0.788553D-03			
13	-0.360239D-05	0.812002D-06	0.207518D-04		
14	-0.658250D-06	0.198158D-05	0.413638D-05	0.140569D-04	
15	0.976243D-06	-0.666359D-06	0.409384D-06	0.591242D-05	0.333588D-04
16	0.329468D-06	0.643594D-05	-0.419412D-05	-0.514381D-05	-0.278976D-05
17	-0.303417D-05	0.354091D-05	-0.488660D-06	-0.330329D-05	-0.121357D-04
18	0.688073D-05	0.181971D-05	0.578719D-06	0.117201D-05	0.822451D-05
19	-0.145342D-05	-0.341165D-06	0.993534D-06	0.313035D-05	0.119916D-05
20	-0.179358D-05	-0.287285D-05	-0.109108D-06	0.107741D-05	0.679703D-05
21	-0.107611D-05	-0.216837D-05	-0.672862D-06	-0.858545D-06	-0.902907D-06
22	0.410267D-05	0.439467D-05	0.429211D-06	-0.809204D-07	0.117069D-05
23	-0.967042D-05	-0.177097D-05	0.427517D-05	0.475824D-05	0.386270D-05
24	-0.225244D-05	0.292616D-05	0.798127D-06	0.379375D-05	0.101232D-04
25	0.601089D-05	-0.144215D-04	-0.190269D-05	-0.112794D-05	-0.355167D-05
26	-0.249394D-05	-0.614754D-05	0.871340D-06	0.174949D-05	0.148173D-05
27	-0.231280D-04	0.777332D-05	0.627657D-08	0.476581D-05	0.727216D-05
28	0.210602D-05	0.457504D-05	-0.248341D-05	-0.544589D-05	-0.238739D-05
29	-0.132391D-05	-0.647095D-05	-0.146740D-05	-0.321917D-05	-0.118628D-04
30	-0.609102D-06	-0.298051D-05	0.220348D-05	0.220458D-05	0.281328D-05
31	0.376736D-05	0.206842D-05	-0.944443D-06	-0.233498D-06	-0.236258D-05
32	0.214547D-04	0.218585D-05	-0.232688D-05	-0.242409D-05	-0.507525D-05
33	-0.151320D-04	0.361869D-05	0.552057D-05	0.221912D-05	-0.127922D-05
34	-0.382491D-05	-0.314654D-05	-0.114059D-05	-0.339934D-05	-0.771036D-05
35	0.469424D-04	0.190080D-03	-0.266575D-05	-0.102873D-04	-0.232668D-04
36	0.343733D-04	0.148833D-03	0.897938D-05	-0.179120D-04	-0.154552D-04
37	0.715107D-04	0.143263D-03	-0.111523D-04	-0.636652D-05	-0.359255D-05
38	0.670059D-04	0.894322D-04	0.143771D-05	-0.566089D-05	-0.373137D-04
39	0.227659D-03	0.227187D-03	-0.100692D-04	-0.103289D-04	-0.155576D-04
40	0.911524D-04	0.164520D-03	0.299183D-05	-0.178134D-04	-0.513504D-04
41	0.184048D-03	0.220121D-03	0.247636D-04	-0.240385D-05	0.682592D-05
42	0.224086D-03	0.150763D-03	-0.113656D-04	-0.966822D-05	-0.180951D-04

43	0.147484D-03	0.183901D-03	0.325970D-05	-0.411918D-05	-0.171531D-05
44	0.622158D-04	0.484818D-04	-0.205378D-05	-0.151343D-04	-0.271247D-04
45	0.938987D-04	0.197272D-03	-0.196221D-04	-0.186997D-05	-0.173742D-04
46	-0.572110D-02	0.433611D-02	0.118288D-03	-0.530799D-03	0.425612D-03
47	0.717599D-03	0.130716D-02	-0.317272D-04	-0.324615D-04	0.108647D-03
48	-0.160775D-03	0.134126D-02	-0.217695D-04	-0.124784D-03	-0.543827D-04
49	-0.313947D-03	0.105186D-02	-0.419743D-04	-0.609587D-04	0.604847D-04
50	-0.441867D-04	0.437597D-04	-0.366796D-04	-0.307954D-04	-0.344298D-04
51	-0.130499D-03	0.549415D-03	-0.103049D-03	-0.141034D-03	-0.618088D-04
52	-0.459039D-03	0.670060D-03	-0.873576D-04	-0.598211D-04	-0.819942D-04
53	0.230919D-03	0.617563D-03	-0.780758D-04	-0.156531D-03	-0.108798D-03
54	0.744006D-04	0.610675D-03	-0.653606D-04	0.248391D-04	0.602760D-04
55	-0.157494D-03	0.865610D-03	0.212315D-04	-0.597034D-04	-0.670772D-04
56	0.358153D-03	0.568806D-03	0.387042D-04	-0.631451D-04	-0.581402D-04
57	-0.506838D-03	0.586409D-03	0.102418D-03	-0.179203D-04	-0.222565D-04
58	-0.124304D-01	0.566083D-02	0.193414D-02	-0.891322D-03	-0.507841D-02
59	0.703710D-05	0.655575D-04	-0.350489D-05	-0.111641D-05	0.199961D-05
60	0.587311D-04	0.140675D-03	-0.108160D-04	-0.226544D-05	-0.418740D-05
61	-0.274228D-04	-0.695825D-04	-0.312487D-05	-0.545061D-05	-0.284660D-04
62	-0.271082D-03	-0.185482D-03	-0.132035D-04	-0.552934D-05	-0.356315D-04
63	0.447963D-05	0.121963D-03	0.155952D-04	0.369472D-06	0.254249D-04
64	0.863904D-04	0.988730D-05	0.122237D-05	0.412286D-05	-0.154487D-04
65	0.224042D-04	0.182047D-04	0.203505D-04	-0.254031D-04	-0.529298D-04
66	0.101652D-03	0.182301D-03	-0.746808D-05	0.711609D-05	0.372515D-04
67	-0.133246D-04	0.134522D-03	-0.156792D-04	-0.425866D-05	0.572533D-05
68	-0.721220D-04	0.338558D-04	-0.866483D-06	-0.295961D-05	0.434820D-05
69	-0.197897D-04	-0.157606D-04	-0.112521D-04	0.641082D-06	0.744331D-05
70	0.200643D-03	0.439056D-04	0.270868D-05	0.526897D-05	0.281793D-04
71	0.109900D+00	-0.118032D+00	0.534140D-01	-0.312966D-01	-0.101372D+00
72	-0.229081D-03	-0.287649D-03	-0.425329D-05	0.146188D-04	-0.167495D-04
73	-0.256037D-04	0.100251D-03	-0.464968D-06	0.162632D-04	0.160156D-04
74	-0.428919D-05	-0.287624D-04	-0.319814D-06	0.129655D-05	0.420266D-05
75	-0.318837D-04	-0.370621D-04	0.576129D-06	-0.399966D-05	-0.465958D-05
76	0.749867D-05	-0.138271D-03	0.196705D-04	-0.164432D-04	-0.940459D-05
77	0.111139D-04	-0.399758D-05	0.140397D-06	-0.661472D-06	0.507483D-05
78	-0.272829D-04	0.110759D-04	0.204781D-05	0.240445D-05	-0.796865D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512223D-04				
17	0.119477D-04	0.645797D-04			
18	-0.105628D-04	-0.450295D-04	0.479868D-03		

19	-0.222392D-05	-0.749557D-06	-0.593022D-06	0.117587D-04	
20	-0.133327D-06	-0.488364D-05	0.146621D-05	0.283041D-05	0.143825D-04
21	0.670781D-06	0.158896D-04	-0.263578D-04	-0.177070D-05	-0.473940D-05
22	-0.469186D-06	-0.303597D-06	0.809976D-06	0.677199D-06	0.518890D-05
23	-0.324926D-05	-0.209342D-05	0.134843D-05	0.554678D-05	0.754901D-06
24	-0.156791D-05	-0.936633D-05	0.798439D-05	0.119464D-05	0.599509D-05
25	0.774070D-05	0.276380D-04	-0.364560D-04	0.191585D-05	-0.991566D-06
26	-0.258806D-06	-0.254232D-05	-0.273175D-05	0.206888D-05	0.469049D-05
27	-0.637456D-05	-0.127457D-04	-0.232047D-06	0.193274D-05	0.591243D-05
28	0.983497D-05	0.178546D-05	-0.117828D-05	-0.389849D-05	-0.114472D-05
29	0.306644D-05	0.132417D-04	-0.984594D-05	-0.128035D-05	-0.576988D-05
30	-0.926470D-05	-0.239742D-04	0.780812D-04	0.471617D-06	0.152776D-05
31	0.541925D-06	0.410836D-05	-0.100161D-04	-0.205563D-05	-0.590844D-05
32	0.535702D-05	0.938191D-05	-0.867005D-05	0.460229D-06	-0.381544D-05
33	-0.316702D-05	-0.663419D-05	0.279993D-04	0.148252D-05	0.145089D-05
34	0.259490D-04	-0.931795D-05	-0.507666D-04	0.720749D-06	0.324406D-06
35	0.470481D-05	0.236569D-04	0.131289D-03	0.680170D-05	-0.554154D-05
36	0.429163D-04	-0.985396D-06	0.163411D-03	0.587055D-05	0.110037D-04
37	0.294684D-04	0.176802D-04	-0.533097D-04	0.103540D-04	-0.173820D-04
38	0.439272D-04	0.406036D-04	0.481751D-05	0.159854D-04	0.296125D-05
39	0.487894D-04	0.354136D-04	0.328481D-04	0.198183D-04	-0.947454D-05
40	0.337962D-04	0.416438D-04	0.115947D-04	0.165304D-04	-0.130496D-04
41	0.275224D-04	-0.233949D-04	-0.285037D-04	0.102969D-05	0.536380D-05
42	-0.390585D-04	0.275160D-04	0.883054D-05	0.240825D-04	0.171088D-06
43	0.441317D-04	-0.640767D-05	0.845837D-06	0.222659D-04	-0.101621D-04
44	0.580493D-04	0.236303D-04	-0.318474D-05	0.127385D-04	-0.290429D-05
45	0.256509D-04	-0.269193D-04	0.237966D-04	0.220962D-04	-0.282973D-05
46	0.770286D-03	-0.875631D-03	-0.430280D-02	-0.955556D-03	0.423298D-03
47	0.332787D-04	0.481858D-04	-0.264061D-03	-0.383029D-04	-0.844433D-04
48	-0.804971D-04	0.472206D-04	-0.260505D-03	-0.442704D-04	-0.856118D-04
49	0.658612D-04	0.106619D-03	-0.328560D-03	-0.433850D-04	-0.626839D-04
50	-0.172896D-03	0.430841D-04	-0.240156D-03	0.646332D-04	-0.557323D-04
51	-0.231147D-04	0.526701D-04	-0.155074D-03	-0.269518D-04	-0.262240D-04
52	-0.387713D-04	0.129404D-03	-0.271736D-03	-0.625377D-04	-0.893420D-04
53	-0.126749D-03	0.102928D-03	-0.110377D-03	-0.411051D-04	-0.704187D-04
54	-0.125217D-03	-0.184706D-03	-0.285007D-03	-0.775471D-04	0.155203D-04
55	-0.200038D-03	0.117360D-03	-0.378647D-03	-0.191437D-04	0.958535D-05
56	-0.933465D-04	0.149371D-03	0.388402D-03	-0.947678D-04	-0.138628D-03
57	-0.111615D-03	0.451179D-04	-0.429494D-04	0.391583D-05	-0.911800D-04
58	-0.362057D-02	0.101555D-01	-0.379388D-01	-0.355465D-02	-0.357845D-02
59	0.189655D-06	-0.206159D-04	-0.111879D-04	-0.565235D-05	-0.189568D-05
60	0.444443D-04	-0.135906D-04	0.399810D-04	-0.170457D-05	0.158979D-05
61	-0.561213D-05	-0.204533D-05	0.317979D-04	-0.130916D-05	-0.243274D-05
62	-0.222089D-05	-0.138089D-05	0.166230D-04	0.492330D-05	-0.259844D-05

63	0.300330D-04	0.241510D-04	-0.638595D-04	0.220906D-05	0.734247D-05
64	0.313893D-04	-0.573357D-05	0.459362D-04	0.899840D-05	-0.269873D-05
65	0.171138D-05	0.540083D-04	-0.996938D-04	-0.241054D-04	-0.401050D-04
66	-0.158597D-04	-0.915075D-05	-0.960179D-04	0.205204D-04	-0.141019D-04
67	-0.208283D-04	-0.473944D-05	-0.107326D-04	-0.617006D-05	-0.271467D-04
68	0.222407D-04	0.185259D-05	-0.900077D-04	0.420854D-05	-0.333786D-05
69	0.155843D-04	0.569167D-04	-0.231608D-04	0.292027D-06	-0.105642D-04
70	0.197261D-04	-0.188788D-04	-0.101110D-04	0.740856D-06	0.519332D-05
71	-0.118632D+00	-0.309943D-01	0.251565D-01	0.465536D-01	-0.182412D-01
72	0.118963D-04	-0.438561D-05	0.964107D-04	0.577832D-05	0.301185D-05
73	-0.122717D-04	0.292139D-05	0.589301D-04	0.146426D-04	0.137852D-04
74	0.204673D-05	-0.440831D-05	0.155906D-04	0.106502D-05	0.218930D-05
75	0.232506D-05	0.850486D-05	-0.534864D-05	-0.486255D-06	0.236044D-05
76	-0.275398D-04	-0.211609D-05	0.421425D-04	-0.109130D-04	-0.748819D-06
77	0.181029D-05	-0.182921D-05	0.694589D-05	0.206559D-05	0.496450D-05
78	-0.677333D-05	-0.170624D-05	0.216521D-04	0.206759D-05	0.273452D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.517676D-04				
22	-0.572983D-05	0.235139D-04			
23	-0.759708D-06	0.485549D-06	0.442060D-04		
24	-0.339350D-05	0.226949D-05	0.914805D-05	0.576199D-04	
25	0.200918D-04	-0.103406D-05	-0.541079D-05	-0.198166D-04	0.212682D-03
26	-0.283873D-05	0.951307D-05	0.446223D-05	0.121828D-04	-0.934289D-05
27	-0.670173D-05	0.632380D-05	0.181674D-04	0.368870D-04	-0.327581D-04
28	-0.677518D-06	-0.464707D-06	-0.101029D-04	-0.342407D-05	0.461028D-05
29	0.154712D-05	-0.422317D-06	-0.580172D-05	-0.120316D-04	0.969737D-05
30	-0.183259D-04	0.351553D-05	0.512320D-05	0.529608D-05	-0.399006D-04
31	0.612321D-05	-0.755332D-05	-0.150758D-05	-0.593084D-05	0.853453D-05
32	0.176937D-05	0.628626D-06	-0.109725D-04	-0.255341D-04	0.458030D-04
33	-0.391924D-05	0.347015D-06	0.855825D-05	0.594526D-05	-0.209099D-04
34	0.227535D-04	0.990517D-05	0.835655D-05	0.806306D-05	0.199303D-04
35	0.678621D-04	0.360575D-06	0.144501D-04	0.102384D-04	-0.232156D-04
36	0.661509D-04	0.159355D-04	0.248630D-04	-0.204098D-04	0.428719D-04
37	0.712090D-04	0.101605D-05	0.383874D-04	-0.221265D-04	0.653839D-04
38	0.768314D-04	0.943329D-06	0.251744D-04	-0.369757D-04	0.229214D-04
39	0.956054D-04	0.927421D-05	0.376853D-04	-0.393838D-04	0.495529D-04
40	0.931263D-04	-0.595107D-05	0.857420D-04	-0.352690D-05	0.966718D-05
41	0.784189D-04	0.256884D-04	0.350157D-04	0.105168D-04	0.102864D-04
42	0.418193D-04	0.164205D-04	0.218202D-04	-0.263920D-04	0.112670D-04
43	0.961343D-04	-0.162062D-04	0.388092D-04	-0.284187D-04	0.349502D-04



44	0.794033D-04	0.348779D-05	0.322252D-04	-0.204082D-04	0.345109D-04
45	0.639894D-04	-0.434136D-05	0.538686D-04	-0.734836D-05	0.811517D-04
46	0.277693D-02	-0.231306D-03	0.840154D-03	-0.868953D-03	0.138861D-02
47	-0.226749D-03	0.528826D-04	0.343117D-04	-0.224753D-03	0.167955D-03
48	-0.818017D-04	0.376958D-05	-0.310901D-04	-0.277725D-03	-0.559758D-05
49	-0.120064D-03	0.137286D-03	-0.330921D-04	0.849445D-04	-0.186681D-03
50	-0.186443D-03	0.223509D-04	0.365142D-04	-0.217512D-03	0.390982D-03
51	-0.763378D-04	0.647126D-04	0.800479D-04	-0.421824D-03	0.182151D-03
52	-0.113435D-03	-0.753038D-04	-0.803584D-04	-0.398659D-03	0.416089D-03
53	0.381411D-04	-0.861167D-05	-0.469410D-04	-0.220319D-03	0.128489D-05
54	-0.125379D-03	0.523268D-04	-0.829623D-04	-0.736723D-04	0.211332D-03
55	-0.112122D-03	0.491457D-04	0.126314D-03	0.110174D-04	-0.428220D-03
56	-0.126553D-04	-0.478338D-04	0.108023D-03	-0.123406D-03	0.484901D-04
57	-0.136943D-03	-0.786950D-04	0.128324D-03	-0.305445D-03	0.313411D-03
58	0.792276D-02	-0.160875D-02	0.149585D-02	-0.395398D-02	-0.167278D-02
59	0.114264D-04	-0.454052D-06	-0.435465D-06	0.180551D-04	0.445296D-05
60	0.315059D-04	0.645698D-05	-0.944371D-05	0.195382D-04	-0.317486D-04
61	-0.175576D-04	-0.928293D-05	-0.292452D-05	0.134390D-04	-0.476486D-05
62	-0.398689D-04	0.113006D-04	-0.886784D-06	-0.152933D-04	0.237970D-04
63	-0.466167D-05	0.128792D-04	-0.119548D-05	-0.110471D-04	-0.697735D-05
64	-0.365663D-05	0.154421D-05	-0.360011D-04	0.341031D-04	-0.196828D-04
65	0.138909D-04	-0.177531D-04	0.177284D-04	-0.405899D-04	-0.118710D-03
66	-0.190232D-04	-0.304725D-04	0.551856D-04	-0.539363D-04	-0.593948D-04
67	-0.360225D-04	-0.133579D-04	-0.442828D-04	0.169362D-06	-0.496184D-04
68	-0.254650D-05	-0.607870D-05	-0.630705D-05	0.653736D-05	0.218594D-04
69	0.252889D-04	-0.512571D-05	0.184733D-06	-0.291222D-04	0.564270D-04
70	-0.133573D-04	0.892608D-05	0.475547D-05	0.161235D-04	0.381931D-05
71	-0.819686D-01	-0.457212D-01	0.381287D-01	-0.225233D-01	-0.180908D+00
72	0.699515D-04	-0.819204D-05	0.277972D-04	-0.151450D-04	0.223603D-04
73	-0.164334D-04	0.280331D-04	-0.162830D-04	0.134352D-04	0.391826D-04
74	0.417087D-05	0.961108D-06	0.226089D-05	0.745514D-05	-0.952103D-05
75	0.227436D-05	-0.210634D-05	0.514940D-06	0.472587D-05	0.129038D-04
76	-0.172901D-04	0.154626D-04	0.190104D-04	-0.838268D-07	0.459138D-04
77	-0.481487D-05	0.469138D-05	0.870989D-06	0.396611D-05	0.304354D-06
78	0.134085D-04	0.239225D-05	0.910775D-05	-0.681741D-05	0.186827D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.490716D-04				
27	0.467518D-04	0.403270D-03			
28	-0.126148D-05	-0.421046D-05	0.404986D-04		
29	-0.285018D-05	-0.116702D-04	0.749718D-05	0.502477D-04	

30	0.183832D-05	0.416432D-05	-0.505755D-05	-0.191621D-04	0.199958D-03
31	-0.919443D-05	-0.926235D-05	0.126634D-05	0.120031D-04	-0.145990D-04
32	-0.191430D-04	-0.807935D-04	0.737718D-05	0.227320D-04	-0.244979D-04
33	0.438357D-05	0.147972D-04	-0.777141D-05	-0.345778D-04	0.613265D-04
34	-0.764587D-05	0.481788D-04	0.728783D-05	-0.494927D-05	0.562933D-06
35	-0.586147D-04	-0.111290D-03	0.148216D-05	-0.136239D-04	0.146042D-03
36	-0.431450D-04	0.302159D-05	0.192520D-04	-0.578929D-05	0.685946D-04
37	-0.400961D-04	0.646415D-05	-0.759686D-05	-0.133169D-04	0.181580D-05
38	-0.420101D-04	-0.576717D-06	-0.619231D-06	0.110022D-04	0.612001D-05
39	-0.580001D-04	-0.609127D-04	-0.104087D-04	0.122320D-05	0.719030D-04
40	-0.449374D-04	-0.372006D-04	-0.517784D-04	-0.184086D-04	0.842015D-04
41	-0.302175D-04	0.260640D-05	-0.232547D-04	-0.354614D-05	0.270928D-04
42	-0.581691D-05	0.294140D-04	-0.275270D-04	-0.256680D-05	0.410434D-04
43	-0.570578D-04	-0.538742D-04	-0.200722D-04	-0.314776D-04	0.110123D-03
44	-0.553348D-04	-0.900483D-04	0.414925D-05	-0.175753D-04	0.216692D-04
45	-0.448253D-04	0.284367D-04	-0.247389D-04	0.118457D-04	0.707002D-04
46	-0.215263D-02	-0.166879D-02	-0.223055D-03	-0.334932D-03	0.105912D-02
47	-0.166048D-03	0.201020D-03	0.281273D-04	0.350905D-03	0.673817D-04
48	-0.914081D-04	-0.139939D-03	-0.349453D-04	0.318685D-03	-0.249693D-03
49	0.370823D-04	0.204806D-03	0.220398D-04	0.133394D-03	-0.334527D-03
50	0.102712D-04	-0.887038D-04	-0.134699D-03	0.301274D-03	-0.214269D-03
51	-0.945600D-05	-0.163835D-03	-0.135229D-04	0.185798D-03	-0.185249D-03
52	-0.409982D-04	0.914245D-04	0.922314D-04	0.445335D-03	-0.575577D-03
53	-0.140286D-03	-0.122502D-03	-0.503719D-04	0.235634D-03	0.256776D-03
54	0.162400D-03	0.404619D-03	-0.147599D-03	-0.409406D-04	-0.972893D-04
55	-0.100280D-03	0.410059D-03	-0.141070D-03	0.251115D-03	-0.321491D-03
56	0.398024D-04	0.172501D-03	-0.887475D-04	0.174080D-03	-0.531736D-03
57	-0.592314D-04	-0.221816D-03	-0.201412D-03	0.153794D-03	-0.124706D-03
58	0.204200D-02	0.162123D-01	-0.153156D-03	0.587362D-02	-0.230147D-01
59	0.479677D-05	-0.386806D-04	0.592953D-05	-0.289554D-05	-0.335818D-04
60	0.228911D-05	-0.473454D-04	-0.380711D-05	0.112539D-04	-0.821221D-04
61	0.482404D-05	0.664420D-04	0.221315D-04	-0.307483D-04	-0.355025D-04
62	-0.275441D-04	-0.845462D-04	-0.269160D-04	0.347440D-04	0.546998D-04
63	0.114401D-04	0.522837D-04	-0.129648D-04	-0.419940D-04	-0.202723D-04
64	-0.403143D-05	-0.159990D-04	0.555802D-07	0.362621D-05	0.546153D-04
65	-0.703474D-05	0.767878D-04	0.248142D-04	-0.290921D-05	0.127285D-03
66	-0.131681D-04	0.190260D-03	-0.150368D-04	-0.162300D-04	0.117629D-04
67	-0.291588D-04	0.278362D-04	0.194822D-04	0.283980D-04	-0.413183D-04
68	0.196659D-05	-0.245579D-04	0.711238D-05	-0.771700D-05	-0.373011D-04
69	-0.270573D-05	0.215434D-04	0.721563D-05	-0.250068D-04	-0.359387D-04
70	-0.608899D-05	-0.186135D-04	-0.138715D-05	-0.122634D-04	-0.256386D-04
71	-0.109071D+00	-0.423682D-01	-0.117789D+00	-0.540825D-01	0.422263D-01
72	-0.319318D-04	-0.691113D-04	-0.163440D-05	-0.313535D-04	0.802674D-04
73	-0.205049D-05	0.920909D-05	0.206866D-04	0.220510D-04	0.203750D-04

74	0.358838D-05	0.987254D-05	0.287954D-05	-0.598448D-05	0.132978D-04
75	0.986144D-05	-0.701844D-05	-0.351486D-05	-0.138947D-04	-0.107093D-04
76	-0.137733D-04	0.122374D-03	0.435965D-05	-0.208926D-04	0.731896D-04
77	0.126658D-05	-0.435074D-05	0.154162D-05	-0.170859D-05	-0.571792D-06
78	-0.628010D-05	-0.670869D-05	0.358288D-05	0.717229D-05	-0.244762D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391585D-04				
32	0.200806D-04	0.190393D-03			
33	-0.284346D-04	-0.658483D-04	0.287582D-03		
34	-0.418662D-05	-0.559855D-05	-0.239232D-04	0.527227D-02	
35	0.521272D-05	0.480868D-07	0.300491D-04	0.289702D-02	0.203958D-01
36	-0.436932D-05	-0.325471D-05	0.365538D-04	0.370285D-02	0.146005D-01
37	0.270041D-04	0.166730D-04	0.216077D-04	0.276096D-02	0.946583D-02
38	-0.110904D-04	-0.129565D-04	0.139836D-04	0.346504D-02	0.133065D-01
39	0.676254D-05	0.300219D-04	0.810770D-04	0.369363D-02	0.139591D-01
40	-0.988008D-06	-0.178501D-04	0.323288D-04	0.387451D-02	0.156804D-01
41	-0.987766D-06	0.247142D-04	0.184939D-04	0.269287D-02	0.108059D-01
42	-0.282650D-04	0.410202D-04	-0.279388D-05	0.172425D-02	0.743820D-02
43	0.794661D-05	-0.994389D-05	0.502060D-04	0.386329D-02	0.145897D-01
44	-0.150036D-05	0.326874D-04	0.502600D-04	0.353517D-02	0.137289D-01
45	0.156884D-04	0.618367D-05	0.393439D-04	0.317639D-02	0.119930D-01
46	0.100771D-02	-0.135330D-02	-0.302789D-03	0.428241D-01	0.239108D+00
47	0.108106D-03	-0.113787D-03	-0.528997D-03	0.303853D-02	0.467537D-02
48	0.154145D-03	-0.203282D-03	-0.363017D-03	0.122022D-02	0.303126D-02
49	-0.130316D-04	-0.856139D-04	-0.587348D-03	-0.818522D-03	-0.816943D-03
50	0.150565D-03	-0.174188D-03	-0.453474D-03	0.918300D-03	0.492512D-03
51	0.153697D-03	-0.587762D-04	-0.172757D-03	0.111441D-02	0.148676D-02
52	0.165050D-03	-0.209650D-03	-0.577289D-03	0.290672D-02	0.417150D-02
53	0.218750D-03	-0.380321D-03	-0.282592D-03	0.174399D-02	0.511559D-02
54	0.416107D-04	-0.393457D-03	-0.669538D-04	0.816125D-03	-0.497249D-02
55	0.173831D-03	-0.195390D-03	-0.580896D-03	0.260114D-02	-0.168401D-02
56	0.126222D-03	-0.269815D-03	0.643399D-04	0.302161D-02	0.172817D-02
57	0.268114D-03	0.182842D-03	-0.399738D-03	0.135486D-02	-0.323258D-04
58	0.708428D-02	0.661234D-02	-0.348315D-01	0.100160D-01	-0.104010D+00
59	0.106113D-04	-0.287413D-04	-0.286116D-04	-0.138497D-03	-0.557164D-04
60	0.173452D-04	-0.587324D-04	0.231528D-04	-0.204492D-03	-0.580697D-03
61	0.713061D-05	-0.253854D-05	0.559235D-04	-0.201386D-03	-0.182550D-04
62	-0.199319D-04	0.585492D-04	0.790144D-04	0.516383D-05	-0.477293D-04
63	-0.345313D-04	0.546218D-04	0.124137D-04	-0.551925D-04	0.179027D-03
64	-0.272482D-05	-0.302365D-05	0.401480D-04	-0.629913D-04	0.504174D-03

65	-0.226003D-04	0.409390D-04	0.402541D-04	0.670252D-03	0.932811D-03
66	-0.252434D-04	-0.163640D-04	-0.721086D-04	0.832606D-04	-0.309850D-03
67	0.103231D-04	-0.265536D-04	0.158018D-04	-0.441343D-03	0.395045D-03
68	-0.348160D-05	-0.476773D-04	0.700348D-05	0.430562D-03	-0.284553D-03
69	-0.122002D-04	0.233046D-05	0.245570D-04	-0.107626D-03	0.429822D-04
70	-0.995374D-05	0.237158D-04	-0.600434D-04	-0.778179D-04	0.191601D-03
71	-0.444241D-01	0.159295D+00	-0.181940D+00	0.118787D+00	0.194145D+01
72	-0.541797D-04	0.241060D-04	0.561762D-04	-0.941183D-04	0.237676D-03
73	0.136221D-04	0.568088D-05	0.184574D-04	-0.187700D-03	-0.462066D-03
74	-0.501458D-05	0.328953D-06	0.962042D-05	-0.929271D-04	-0.484542D-04
75	-0.512917D-05	-0.679656D-05	0.934587D-05	0.383315D-04	-0.809875D-05
76	-0.411528D-04	0.240451D-04	0.381961D-04	0.165969D-03	0.970187D-03
77	-0.103834D-05	0.335474D-05	0.181833D-05	-0.147490D-04	0.430899D-04
78	0.565000D-05	0.255208D-05	-0.138452D-04	0.415854D-03	0.190872D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.230440D-01				
37	0.112401D-01	0.238465D-01			
38	0.160662D-01	0.106002D-01	0.226930D-01		
39	0.164549D-01	0.106648D-01	0.151148D-01	0.231175D-01	
40	0.188171D-01	0.124121D-01	0.175010D-01	0.177993D-01	0.353485D-01
41	0.132319D-01	0.836980D-02	0.118194D-01	0.121672D-01	0.143664D-01
42	0.927734D-02	0.628208D-02	0.876125D-02	0.822174D-02	0.986452D-02
43	0.180123D-01	0.115409D-01	0.163697D-01	0.168396D-01	0.191325D-01
44	0.165970D-01	0.109988D-01	0.155125D-01	0.155635D-01	0.172061D-01
45	0.153232D-01	0.100810D-01	0.137244D-01	0.142631D-01	0.159151D-01
46	0.309262D+00	0.224364D+00	0.269328D+00	0.277959D+00	0.309397D+00
47	0.536335D-02	0.411619D-02	-0.281016D-03	0.251776D-02	0.403016D-02
48	0.317379D-02	0.171151D-02	0.162581D-04	0.610086D-03	0.206901D-02
49	-0.246883D-02	-0.633216D-02	-0.190254D-02	-0.476316D-02	-0.587404D-04
50	-0.177424D-02	0.163199D-02	-0.771482D-03	-0.362529D-02	-0.458698D-02
51	-0.521300D-03	0.938086D-03	-0.132969D-02	-0.984691D-03	-0.110842D-02
52	-0.405274D-03	0.371232D-02	-0.329456D-02	-0.326495D-02	-0.303740D-02
53	0.354841D-02	0.369336D-02	0.154658D-02	0.396426D-02	0.181331D-02
54	-0.324400D-02	0.158934D-02	-0.305942D-02	-0.218564D-02	-0.362339D-02
55	0.678636D-04	0.443409D-02	-0.248057D-02	-0.421542D-02	-0.372867D-02
56	0.303305D-02	0.484609D-02	-0.477397D-03	-0.122117D-02	0.208249D-03
57	-0.791397D-03	0.491201D-03	-0.327464D-02	-0.410775D-02	-0.280338D-02
58	-0.910570D-01	0.640496D-01	-0.100492D+00	-0.169339D+00	-0.351482D+00
59	-0.131232D-03	0.745115D-04	-0.582823D-04	0.129081D-03	0.113481D-03
60	-0.986822D-03	-0.907880D-03	-0.955802D-03	-0.141662D-02	-0.460704D-03

61	-0.341296D-04	-0.314866D-03	-0.459060D-03	-0.296699D-03	-0.283587D-03
62	-0.850074D-03	0.323748D-03	-0.446695D-03	-0.699123D-03	0.531485D-03
63	-0.897919D-04	0.413104D-03	0.563202D-03	-0.846250D-04	-0.505100D-03
64	0.483038D-03	0.342070D-03	0.450241D-03	0.849026D-03	0.846673D-03
65	0.144991D-02	0.783828D-03	0.954148D-03	0.156686D-02	0.971720D-03
66	0.233187D-03	0.282083D-03	0.929474D-03	0.521973D-03	0.128214D-02
67	0.594825D-03	0.493388D-03	0.599321D-03	0.839901D-03	-0.878033D-04
68	-0.227283D-04	-0.910055D-03	-0.857369D-04	-0.897806D-04	-0.400104D-04
69	-0.299331D-03	-0.121547D-03	0.156639D-03	0.216788D-03	0.436863D-03
70	-0.155634D-03	0.135167D-04	-0.470608D-03	-0.121773D-03	-0.680992D-03
71	0.849407D+00	0.135321D+01	0.116867D+01	0.191429D+01	0.552811D+00
72	0.441611D-03	0.116251D-02	0.601586D-03	0.105380D-02	0.102155D-02
73	-0.588299D-03	0.321918D-04	-0.107459D-02	-0.379997D-03	-0.140211D-02
74	-0.513409D-04	-0.152039D-03	0.751879D-05	-0.590182D-04	-0.337375D-04
75	-0.378190D-04	0.407043D-04	0.181387D-04	0.143235D-03	-0.144966D-03
76	0.880297D-03	0.512984D-04	0.106450D-02	0.111031D-02	0.626150D-03
77	0.290051D-04	0.111019D-04	-0.871052D-05	0.429049D-04	0.767736D-04
78	0.216986D-02	0.126240D-02	0.212390D-02	0.220170D-02	0.235579D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.239609D-01				
42	0.624703D-02	0.188719D-01			
43	0.132563D-01	0.919643D-02	0.256539D-01		
44	0.123349D-01	0.823689D-02	0.168225D-01	0.229142D-01	
45	0.110133D-01	0.814464D-02	0.153902D-01	0.142443D-01	0.208677D-01
46	0.240536D+00	0.156450D+00	0.302350D+00	0.272217D+00	0.234584D+00
47	-0.328916D-03	-0.213221D-02	0.431551D-02	0.114503D-02	0.400187D-02
48	-0.717131D-03	-0.173042D-02	0.401291D-02	0.162989D-02	0.891713D-03
49	-0.145614D-02	-0.195586D-02	-0.250407D-02	-0.295320D-02	-0.241404D-02
50	-0.443109D-02	0.153713D-03	-0.131660D-02	-0.265423D-02	-0.491604D-02
51	-0.286918D-02	0.665840D-03	0.181096D-02	-0.482894D-03	-0.648345D-03
52	-0.202932D-02	0.334100D-03	-0.586400D-04	-0.361448D-02	-0.698808D-03
53	-0.259675D-02	0.112852D-03	0.215255D-02	0.222962D-02	-0.516374D-06
54	-0.954042D-03	-0.183174D-02	-0.212911D-02	-0.305794D-02	-0.389344D-02
55	-0.239324D-02	0.637355D-03	-0.279619D-02	-0.403831D-02	-0.104101D-02
56	0.995875D-03	-0.224196D-04	0.312657D-02	0.138152D-02	0.425639D-03
57	-0.716660D-03	-0.325373D-02	-0.945687D-03	-0.612852D-03	-0.323283D-02
58	-0.192045D+00	-0.125889D+00	-0.969477D-01	-0.136980D+00	-0.129309D+00
59	-0.677869D-04	0.651100D-04	-0.163738D-03	-0.320357D-03	0.110780D-04
60	-0.550577D-03	-0.684503D-03	-0.135085D-02	-0.827926D-03	-0.152664D-02
61	0.394093D-03	-0.136816D-03	-0.200098D-03	-0.323449D-03	0.392404D-04

62	-0.826791D-03	0.222442D-03	-0.813865D-03	-0.294169D-03	-0.393362D-03
63	-0.247817D-03	-0.321234D-03	0.357719D-03	0.249672D-03	0.306744D-03
64	0.651260D-03	0.227615D-03	0.785476D-03	0.460452D-03	0.627088D-03
65	0.879442D-03	0.653733D-03	0.735254D-03	0.144278D-02	0.563805D-03
66	0.673669D-03	0.990027D-03	0.128558D-02	0.448461D-03	0.658642D-03
67	0.505633D-03	-0.748801D-03	0.242238D-03	0.909230D-04	0.426961D-03
68	-0.476351D-03	-0.700154D-04	0.244583D-03	0.425369D-04	0.866957D-04
69	-0.534158D-04	0.630151D-03	0.614952D-06	-0.172521D-03	-0.118400D-03
70	-0.309265D-03	-0.215739D-03	-0.316745D-03	-0.449467D-03	-0.314503D-03
71	0.664122D+00	0.516749D+00	0.143662D+01	0.180284D+01	0.100288D+01
72	-0.660187D-03	0.745310D-03	0.273901D-03	0.930896D-03	0.104790D-02
73	-0.201649D-03	-0.343528D-03	-0.124827D-02	-0.397235D-03	-0.128143D-02
74	-0.135832D-04	-0.789855D-04	-0.404404D-04	-0.248701D-04	0.221975D-04
75	0.963273D-04	0.260361D-04	-0.379444D-04	0.630269D-04	-0.889520D-04
76	0.416537D-03	0.121802D-02	0.999853D-03	0.873098D-03	0.136483D-02
77	0.961788D-04	-0.643110D-04	0.694887D-04	0.147202D-04	0.495430D-04
78	0.166712D-02	0.991487D-03	0.223750D-02	0.211591D-02	0.183413D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.309574D+02				
47	-0.498703D-01	0.838357D+00			
48	-0.522434D-01	0.449865D+00	0.690023D+00		
49	-0.189176D+00	0.321441D+00	0.336242D+00	0.706563D+00	
50	-0.152394D+00	0.395885D+00	0.480168D+00	0.310527D+00	0.669758D+00
51	-0.530511D-01	0.393845D+00	0.482593D+00	0.317351D+00	0.435095D+00
52	-0.980215D-01	0.486715D+00	0.569567D+00	0.356513D+00	0.507834D+00
53	0.498187D-01	0.333236D+00	0.403928D+00	0.253197D+00	0.359768D+00
54	-0.726149D-01	0.246987D+00	0.291074D+00	0.157180D+00	0.255440D+00
55	-0.974810D-01	0.444614D+00	0.524978D+00	0.352975D+00	0.470194D+00
56	-0.159645D+00	0.415783D+00	0.493189D+00	0.308048D+00	0.431816D+00
57	-0.929933D-01	0.371984D+00	0.444902D+00	0.290713D+00	0.393644D+00
58	-0.122564D+02	0.956047D+01	0.110450D+02	0.761301D+01	0.989515D+01
59	0.588505D-04	-0.297679D-02	-0.232515D-02	-0.192704D-02	-0.357702D-02
60	0.155379D-01	-0.113191D-01	-0.233867D-02	0.202558D-02	-0.261544D-02
61	-0.150872D-01	0.917223D-03	-0.630413D-02	0.634164D-03	-0.273192D-02
62	0.129043D-02	-0.531742D-02	-0.262015D-02	-0.124313D-01	-0.187512D-02
63	0.219038D-02	0.948437D-03	0.581376D-03	0.185526D-03	-0.571711D-02
64	-0.716434D-02	0.303092D-02	0.371771D-02	-0.340612D-02	-0.548314D-03
65	0.481145D-02	-0.371409D-02	-0.226134D-02	-0.289194D-02	-0.150294D-03
66	0.999413D-02	0.880919D-04	-0.284452D-03	-0.240958D-02	-0.107756D-02
67	0.111291D-01	0.339661D-02	-0.228845D-02	-0.125530D-02	0.535309D-02

68	-0.121947D-01	-0.119725D-02	0.313780D-02	-0.113877D-03	-0.181833D-03
69	-0.681023D-02	-0.411950D-02	-0.345227D-02	-0.267876D-02	-0.222023D-02
70	-0.118621D-01	0.327256D-02	0.586018D-02	0.200426D-02	0.193059D-02
71	-0.511445D+02	-0.281607D+01	-0.208872D+00	-0.513196D+01	0.201068D+01
72	0.852489D-01	-0.590159D-01	-0.584278D-01	-0.396955D-01	-0.531572D-01
73	-0.170046D-01	0.124012D-02	-0.352070D-02	-0.100318D-02	-0.420971D-03
74	0.449798D-02	-0.892138D-02	-0.101638D-01	-0.670864D-02	-0.919374D-02
75	-0.348266D-02	-0.131588D-01	-0.185467D-03	-0.276898D-03	-0.410390D-03
76	-0.298004D-02	-0.244586D-02	-0.396682D-02	-0.346658D-02	-0.203789D-02
77	-0.215742D-02	0.175867D-03	-0.183458D-03	-0.218593D-03	-0.411440D-03
78	0.332884D-01	0.259700D-04	0.195882D-03	-0.738365D-03	-0.453020D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.666695D+00				
52	0.497897D+00	0.100477D+01			
53	0.364639D+00	0.418532D+00	0.685747D+00		
54	0.282068D+00	0.308025D+00	0.233703D+00	0.548872D+00	
55	0.481420D+00	0.555679D+00	0.387497D+00	0.291670D+00	0.726585D+00
56	0.439330D+00	0.505962D+00	0.365255D+00	0.255389D+00	0.491541D+00
57	0.418737D+00	0.454569D+00	0.321467D+00	0.237327D+00	0.442942D+00
58	0.103978D+02	0.115246D+02	0.959867D+01	0.652484D+01	0.106082D+02
59	-0.274176D-02	-0.193071D-02	-0.246913D-02	-0.197686D-02	-0.310984D-02
60	-0.120934D-02	-0.573589D-02	0.944314D-03	0.473789D-05	-0.153747D-02
61	0.136039D-02	-0.645246D-03	-0.264595D-02	-0.217728D-02	0.237342D-02
62	-0.586807D-02	-0.421742D-02	-0.155574D-02	0.156786D-02	-0.709750D-02
63	0.238680D-03	-0.712682D-03	0.107017D-02	-0.999065D-03	-0.150291D-02
64	-0.474311D-02	0.105683D-02	0.110752D-02	0.135953D-02	0.256595D-03
65	-0.255724D-03	-0.117081D-01	-0.318172D-02	-0.177823D-02	0.334887D-02
66	0.338776D-03	0.417202D-02	-0.114321D-01	-0.389841D-02	0.312979D-03
67	-0.154603D-02	-0.414565D-02	-0.385119D-03	-0.882923D-02	0.818976D-03
68	0.401853D-04	0.176601D-02	0.147002D-02	0.230898D-02	-0.900754D-02
69	0.190000D-02	-0.159705D-02	-0.307969D-02	-0.461112D-03	-0.249213D-02
70	-0.697170D-03	0.429826D-02	0.336289D-02	0.344666D-02	-0.963904D-03
71	-0.101540D+02	-0.259532D+00	0.580409D+01	-0.705676D+01	-0.596773D+00
72	-0.529078D-01	-0.531808D-01	-0.399789D-01	-0.317020D-01	-0.595511D-01
73	-0.119612D-02	-0.444574D-02	-0.334243D-02	-0.792323D-03	-0.207276D-02
74	-0.921586D-02	-0.106900D-01	-0.726088D-02	-0.561982D-02	-0.100242D-01
75	0.325690D-03	-0.590396D-03	-0.293241D-03	-0.526789D-03	-0.661419D-03
76	-0.298168D-02	-0.354309D-02	-0.239771D-02	-0.450112D-02	-0.325177D-02
77	0.347531D-04	-0.317438D-03	-0.361750D-03	-0.538885D-03	-0.199006D-03
78	-0.332161D-03	0.175163D-03	-0.858830D-04	-0.938014D-03	-0.742910D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	0.671489D+00				
57	0.408999D+00	0.611529D+00			
58	0.104054D+02	0.876648D+01	0.101403D+04		
59	-0.246794D-02	-0.344904D-02	-0.351928D-01	0.273071D-02	
60	-0.367436D-02	-0.253048D-02	0.393233D-01	-0.945311D-04	0.178108D-01
61	-0.571675D-03	0.302193D-02	-0.135702D+00	-0.666546D-04	0.361214D-03
62	-0.517303D-02	-0.370698D-02	-0.414011D+00	0.575363D-05	-0.397242D-03
63	-0.183855D-02	0.632308D-04	0.768398D-01	0.191442D-03	0.120113D-03
64	0.438782D-02	-0.291472D-02	0.450841D-01	0.442843D-03	-0.379821D-03
65	0.390980D-02	0.663950D-03	-0.139431D+00	-0.597949D-03	0.608573D-04
66	0.244368D-03	-0.208913D-02	-0.196524D+00	-0.250610D-03	-0.787493D-03
67	0.100974D-02	0.238217D-02	-0.801805D-01	-0.215880D-03	-0.977042D-03
68	-0.172587D-02	-0.530636D-02	0.192990D+00	0.904436D-04	-0.562029D-03
69	-0.804349D-02	-0.784924D-03	0.110323D+00	0.124844D-03	-0.199746D-03
70	0.873066D-03	-0.276658D-02	0.136035D+00	0.236298D-03	-0.663786D-03
71	0.174794D+01	-0.603263D+01	-0.246746D+03	-0.477091D+00	-0.163134D+00
72	-0.557975D-01	-0.461774D-01	-0.146771D+01	-0.820642D-04	-0.708652D-04
73	-0.438444D-02	-0.415199D-03	-0.101642D+00	0.206084D-03	-0.649502D-03
74	-0.930769D-02	-0.810126D-02	-0.217291D+00	0.688708D-04	0.116598D-03
75	0.437711D-04	-0.413972D-03	-0.231962D-01	0.647017D-04	0.289377D-04
76	-0.311229D-02	-0.230950D-02	-0.157485D+00	-0.778090D-04	-0.971534D-02
77	-0.176420D-03	-0.173510D-03	-0.152765D-01	0.650133D-05	-0.148428D-03
78	-0.109003D-02	-0.449750D-03	-0.832737D-01	-0.592677D-04	-0.185850D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	0.622961D-02				
62	-0.870160D-03	0.338777D-01			
63	-0.305151D-03	0.266276D-04	0.111540D-01		
64	-0.732133D-03	0.889125D-03	-0.260921D-03	0.976684D-02	
65	0.107041D-02	0.858969D-03	-0.852515D-03	-0.202117D-03	0.346061D-01
66	0.720853D-03	-0.403505D-03	0.294471D-03	-0.105474D-02	0.686694D-03
67	0.136788D-03	0.340365D-04	0.822742D-04	-0.393608D-04	0.113472D-02
68	-0.944015D-03	-0.500607D-04	0.165819D-04	0.786715D-04	-0.103899D-02
69	0.504792D-03	-0.377907D-03	-0.510559D-03	-0.682106D-03	-0.640716D-03
70	-0.985839D-03	0.210210D-03	0.474685D-03	0.409652D-03	-0.115726D-02
71	-0.951424D+00	-0.246093D+00	-0.621580D+00	0.962005D+00	0.183328D+01



72	-0.630344D-03	-0.103945D-03	-0.159909D-03	0.253609D-04	-0.136365D-02
73	0.532303D-03	0.275617D-04	-0.273193D-03	0.884265D-04	0.550354D-03
74	-0.625896D-05	0.922670D-04	0.786946D-04	-0.689696D-04	0.584302D-04
75	-0.120328D-03	0.962662D-04	-0.254612D-04	-0.995152D-04	0.102200D-03
76	0.115353D-03	0.333702D-03	0.686260D-04	-0.199894D-04	0.604391D-03
77	-0.366618D-04	0.205292D-04	0.685031D-04	0.153742D-04	-0.410794D-05
78	-0.667641D-04	0.277076D-03	-0.465007D-04	0.439790D-04	-0.197676D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.262964D-01				
67	0.189251D-02	0.240265D-01			
68	-0.742515D-03	-0.281721D-03	0.905330D-02		
69	0.165040D-03	-0.216736D-03	-0.404499D-04	0.945846D-02	
70	-0.533236D-03	-0.678439D-03	0.130359D-02	-0.571767D-03	0.977984D-02
71	0.230381D+01	0.119119D+01	-0.151295D+01	-0.107082D+01	0.559788D+00
72	0.136597D-02	-0.116714D-02	0.974584D-03	-0.119304D-03	0.931583D-03
73	-0.144207D-03	0.765993D-03	-0.711597D-03	-0.313595D-05	-0.130530D-03
74	-0.151466D-04	-0.722312D-04	-0.489647D-05	-0.119919D-04	-0.469174D-04
75	0.208412D-04	-0.479700D-04	0.766010D-04	0.727245D-04	-0.488338D-04
76	0.501076D-03	0.499989D-03	-0.318866D-04	0.477294D-03	0.205757D-03
77	-0.221857D-04	0.562699D-04	-0.210704D-05	0.854017D-05	0.907686D-04
78	0.134881D-03	-0.616912D-04	-0.213869D-04	0.377150D-04	-0.133483D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.961911D+05				
72	-0.613167D+00	0.487984D-01			
73	0.317508D+00	-0.347046D-02	0.183950D-01		
74	-0.143614D+00	0.116346D-02	0.123157D-04	0.340999D-03	
75	0.193388D+00	0.488558D-03	-0.839918D-05	0.208971D-04	0.881671D-03
76	0.398934D+00	0.158856D-03	0.685809D-04	0.401276D-04	0.620232D-04
77	0.114232D+00	-0.231790D-03	0.676748D-06	0.758747D-05	-0.140133D-05
78	0.136234D+00	0.523645D-03	-0.490173D-03	0.102712D-04	0.820084D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	0.135855D-01		

77 0.811225D-04 0.126420D-03  
78 0.116140D-03 0.810463D-04 0.165278D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.195	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.067	-0.164	0.182	-0.177	-0.227
7	0.012	0.009	0.002	-0.017	-0.027
8	0.024	-0.013	-0.010	-0.018	-0.049
9	0.019	0.031	0.010	0.040	0.005
10	0.000	0.036	0.026	0.037	0.019
11	0.021	0.009	0.000	0.005	0.042
12	-0.019	-0.010	-0.009	-0.036	0.039
13	0.015	0.021	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.007	0.010	-0.039	0.020	0.020
16	-0.039	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.000	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.016	0.027	0.009
23	-0.009	0.013	-0.020	0.009	-0.028
24	0.011	-0.014	0.022	-0.033	0.007
25	-0.043	0.050	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.015	0.002	0.002	0.001
29	-0.042	-0.023	0.028	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.041	-0.022	0.017	-0.014	0.041
35	-0.019	0.025	0.034	0.022	0.022
36	0.005	0.015	0.018	0.021	0.058
37	0.011	-0.026	0.018	-0.013	0.034

38	-0.007	0.001	0.022	0.014	0.008
39	-0.016	0.004	-0.025	0.010	0.036
40	0.031	0.008	0.011	0.018	0.026
41	-0.021	0.036	-0.003	0.016	0.030
42	0.044	-0.028	0.055	-0.006	0.018
43	0.026	0.023	0.016	0.026	0.062
44	-0.020	0.009	0.002	0.016	0.059
45	0.003	0.006	-0.001	0.003	0.055
46	-0.002	0.017	0.004	0.035	0.037
47	-0.019	0.000	-0.020	-0.046	0.017
48	0.029	0.032	-0.014	0.022	0.007
49	0.000	0.024	0.003	-0.005	0.035
50	0.016	0.039	-0.037	0.015	-0.002
51	0.010	0.034	-0.046	0.040	0.019
52	0.027	0.014	-0.007	-0.016	-0.001
53	-0.001	0.021	-0.037	-0.004	-0.011
54	0.044	0.061	-0.044	0.011	0.019
55	0.040	0.012	-0.015	-0.020	0.015
56	0.070	0.055	-0.024	0.021	0.017
57	0.022	0.049	-0.043	-0.009	0.017
58	-0.005	0.029	-0.039	0.041	0.020
59	-0.018	0.018	0.048	0.006	-0.056
60	0.050	0.087	-0.037	0.030	0.043
61	0.013	-0.002	-0.023	-0.041	-0.028
62	0.008	0.055	0.001	0.005	-0.004
63	-0.005	-0.040	0.036	-0.005	0.003
64	0.083	0.034	0.013	-0.013	0.003
65	0.001	-0.007	0.009	0.010	0.018
66	0.065	-0.017	0.004	0.001	-0.043
67	-0.009	-0.024	-0.027	-0.008	-0.033
68	-0.009	0.016	0.016	-0.006	-0.012
69	-0.014	-0.004	-0.027	-0.006	0.027
70	-0.034	-0.029	0.054	-0.022	-0.011
71	-0.001	0.032	-0.020	0.048	0.028
72	0.012	0.006	-0.001	-0.004	-0.006
73	0.020	0.029	0.011	-0.011	-0.022
74	-0.008	-0.023	0.015	0.026	-0.008
75	0.039	0.028	0.023	0.057	-0.015
76	-0.012	-0.041	0.008	0.011	-0.020
77	-0.038	-0.061	0.049	-0.001	0.021
78	0.012	0.008	-0.016	-0.025	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.026	1.000			
8	-0.043	-0.115	1.000		
9	-0.047	0.015	0.117	1.000	
10	0.008	-0.040	-0.145	0.013	1.000
11	-0.036	-0.006	-0.139	0.023	-0.173
12	0.035	0.029	0.152	-0.151	0.059
13	0.000	0.031	0.010	-0.023	-0.003
14	0.000	0.008	-0.032	-0.047	0.058
15	-0.028	-0.033	-0.016	-0.026	0.033
16	-0.017	-0.020	0.025	0.011	0.006
17	-0.011	0.013	-0.014	-0.006	0.011
18	-0.013	-0.009	-0.020	-0.043	-0.019
19	0.019	-0.039	0.019	0.008	0.025
20	0.012	-0.001	-0.010	0.001	0.036
21	-0.015	0.020	-0.007	0.021	-0.033
22	-0.046	0.022	0.004	-0.009	0.004
23	-0.014	0.007	0.065	0.014	0.034
24	0.022	-0.011	-0.009	-0.031	0.025
25	0.009	-0.024	-0.012	0.004	0.022
26	-0.036	0.007	-0.019	0.003	-0.010
27	0.004	-0.019	-0.011	0.016	0.033
28	0.013	0.051	-0.037	-0.012	-0.018
29	0.036	0.034	-0.053	0.003	0.023
30	-0.006	-0.031	-0.016	-0.010	-0.024
31	0.038	0.004	0.000	0.003	0.012
32	0.011	0.039	0.002	0.037	-0.001
33	-0.006	0.010	-0.017	0.011	-0.010
34	0.024	-0.015	0.009	-0.038	-0.020
35	0.054	-0.003	0.002	0.021	-0.011
36	0.031	-0.006	0.037	0.055	0.011
37	0.052	-0.051	0.036	0.021	0.000
38	0.031	0.041	0.012	0.038	0.009
39	0.057	0.004	0.020	0.043	-0.007
40	0.024	-0.020	0.047	0.012	0.004
41	0.010	-0.038	0.025	0.037	-0.003
42	-0.025	-0.011	0.008	0.012	0.009
43	0.016	-0.018	0.056	0.037	-0.001
44	0.029	-0.011	0.033	0.036	-0.006
45	0.022	-0.048	0.046	0.041	-0.013
46	0.002	-0.009	0.017	0.017	0.036
47	0.026	-0.025	0.044	0.024	0.005

48	0.015	-0.029	0.040	-0.002	0.057
49	-0.001	0.036	0.042	-0.015	0.007
50	-0.006	-0.020	0.023	0.001	0.063
51	0.017	-0.039	0.033	0.012	0.020
52	0.013	0.015	0.030	-0.010	0.020
53	0.005	-0.018	0.022	-0.028	0.018
54	0.004	0.023	-0.006	-0.029	0.057
55	0.012	-0.015	0.020	0.026	0.041
56	0.006	-0.020	0.046	0.014	0.002
57	0.027	-0.038	0.031	0.008	0.052
58	0.013	-0.046	0.041	0.005	0.012
59	0.039	0.010	0.021	0.026	0.020
60	-0.066	-0.018	-0.025	-0.013	0.001
61	0.050	0.009	-0.005	0.033	0.001
62	-0.014	0.025	-0.014	0.014	0.006
63	0.009	0.022	0.021	-0.002	-0.007
64	0.026	0.028	0.022	0.006	-0.016
65	-0.005	-0.017	-0.016	0.025	0.007
66	0.020	0.000	0.035	-0.026	-0.035
67	0.006	-0.021	0.012	-0.012	-0.027
68	0.045	-0.033	0.009	-0.045	0.006
69	-0.011	-0.012	0.004	0.046	-0.013
70	-0.015	0.052	-0.007	0.020	-0.006
71	-0.031	0.006	0.008	-0.025	-0.016
72	0.019	0.024	-0.061	-0.075	-0.036
73	0.012	-0.011	0.007	-0.039	0.013
74	-0.034	0.013	-0.032	0.007	-0.026
75	-0.023	-0.001	0.019	-0.044	-0.014
76	0.057	0.028	0.006	0.031	-0.017
77	0.014	-0.005	-0.029	0.033	0.003
78	0.019	0.357	0.038	-0.010	0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.180	1.000			
13	-0.030	0.006	1.000		
14	-0.007	0.019	0.242	1.000	
15	0.006	-0.004	0.016	0.273	1.000
16	0.002	0.032	-0.129	-0.192	-0.067
17	-0.014	0.016	-0.013	-0.110	-0.261
18	0.012	0.003	0.006	0.014	0.065

19	-0.016	-0.004	0.064	0.243	0.061
20	-0.018	-0.027	-0.006	0.076	0.310
21	-0.006	-0.011	-0.021	-0.032	-0.022
22	0.032	0.032	0.019	-0.004	0.042
23	-0.056	-0.009	0.141	0.191	0.101
24	-0.011	0.014	0.023	0.133	0.231
25	0.016	-0.035	-0.029	-0.021	-0.042
26	-0.014	-0.031	0.027	0.067	0.037
27	-0.044	0.014	0.000	0.063	0.063
28	0.013	0.026	-0.086	-0.228	-0.065
29	-0.007	-0.033	-0.045	-0.121	-0.290
30	-0.002	-0.008	0.034	0.042	0.034
31	0.023	0.012	-0.033	-0.010	-0.065
32	0.060	0.006	-0.037	-0.047	-0.064
33	-0.034	0.008	0.071	0.035	-0.013
34	-0.002	-0.002	-0.003	-0.012	-0.018
35	0.013	0.047	-0.004	-0.019	-0.028
36	0.009	0.035	0.013	-0.031	-0.018
37	0.018	0.033	-0.016	-0.011	-0.004
38	0.017	0.021	0.002	-0.010	-0.043
39	0.057	0.053	-0.015	-0.018	-0.018
40	0.019	0.031	0.003	-0.025	-0.047
41	0.046	0.051	0.035	-0.004	0.008
42	0.063	0.039	-0.018	-0.019	-0.023
43	0.035	0.041	0.004	-0.007	-0.002
44	0.016	0.011	-0.003	-0.027	-0.031
45	0.025	0.049	-0.030	-0.003	-0.021
46	-0.039	0.028	0.005	-0.025	0.013
47	0.030	0.051	-0.008	-0.009	0.021
48	-0.007	0.057	-0.006	-0.040	-0.011
49	-0.014	0.045	-0.011	-0.019	0.012
50	-0.002	0.002	-0.010	-0.010	-0.007
51	-0.006	0.024	-0.028	-0.046	-0.013
52	-0.018	0.024	-0.019	-0.016	-0.014
53	0.011	0.027	-0.021	-0.050	-0.023
54	0.004	0.029	-0.019	0.009	0.014
55	-0.007	0.036	0.005	-0.019	-0.014
56	0.017	0.025	0.010	-0.021	-0.012
57	-0.025	0.027	0.029	-0.006	-0.005
58	-0.015	0.006	0.013	-0.007	-0.028
59	0.005	0.045	-0.015	-0.006	0.007
60	0.017	0.038	-0.018	-0.005	-0.005
61	-0.013	-0.031	-0.009	-0.018	-0.062
62	-0.057	-0.036	-0.016	-0.008	-0.034

63	0.002	0.041	0.032	0.001	0.042
64	0.034	0.004	0.003	0.011	-0.027
65	0.005	0.003	0.024	-0.036	-0.049
66	0.024	0.040	-0.010	0.012	0.040
67	-0.003	0.031	-0.022	-0.007	0.006
68	-0.029	0.013	-0.002	-0.008	0.008
69	-0.008	-0.006	-0.025	0.002	0.013
70	0.078	0.016	0.006	0.014	0.049
71	0.014	-0.014	0.038	-0.027	-0.057
72	-0.040	-0.046	-0.004	0.018	-0.013
73	-0.007	0.026	-0.001	0.032	0.020
74	-0.009	-0.055	-0.004	0.019	0.039
75	-0.041	-0.044	0.004	-0.036	-0.027
76	0.002	-0.042	0.037	-0.038	-0.014
77	0.038	-0.013	0.003	-0.016	0.078
78	-0.026	0.010	0.011	0.016	-0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.014	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.044	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.008	-0.179	-0.047
29	0.060	0.232	-0.063	-0.053	-0.215
30	-0.092	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.025	0.023
34	0.050	-0.016	-0.032	0.003	0.001
35	0.005	0.021	0.042	0.014	-0.010
36	0.040	-0.001	0.049	0.011	0.019
37	0.027	0.014	-0.016	0.020	-0.030
38	0.041	0.034	0.001	0.031	0.005

39	0.045	0.029	0.010	0.038	-0.016
40	0.025	0.028	0.003	0.026	-0.018
41	0.025	-0.019	-0.008	0.002	0.009
42	-0.040	0.025	0.003	0.051	0.000
43	0.038	-0.005	0.000	0.041	-0.017
44	0.054	0.019	-0.001	0.025	-0.005
45	0.025	-0.023	0.008	0.045	-0.005
46	0.019	-0.020	-0.035	-0.050	0.020
47	0.005	0.007	-0.013	-0.012	-0.024
48	-0.014	0.007	-0.014	-0.016	-0.027
49	0.011	0.016	-0.018	-0.015	-0.020
50	-0.030	0.007	-0.013	0.023	-0.018
51	-0.004	0.008	-0.009	-0.010	-0.008
52	-0.005	0.016	-0.012	-0.018	-0.024
53	-0.021	0.015	-0.006	-0.014	-0.022
54	-0.024	-0.031	-0.018	-0.031	0.006
55	-0.033	0.017	-0.020	-0.007	0.003
56	-0.016	0.023	0.022	-0.034	-0.045
57	-0.020	0.007	-0.003	0.001	-0.031
58	-0.016	0.040	-0.054	-0.033	-0.030
59	0.001	-0.049	-0.010	-0.032	-0.010
60	0.047	-0.013	0.014	-0.004	0.003
61	-0.010	-0.003	0.018	-0.005	-0.008
62	-0.002	-0.001	0.004	0.008	-0.004
63	0.040	0.028	-0.028	0.006	0.018
64	0.044	-0.007	0.021	0.027	-0.007
65	0.001	0.036	-0.024	-0.038	-0.057
66	-0.014	-0.007	-0.027	0.037	-0.023
67	-0.019	-0.004	-0.003	-0.012	-0.046
68	0.033	0.002	-0.043	0.013	-0.009
69	0.022	0.073	-0.011	0.001	-0.029
70	0.028	-0.024	-0.005	0.002	0.014
71	-0.053	-0.012	0.004	0.044	-0.016
72	0.008	-0.002	0.020	0.008	0.004
73	-0.013	0.003	0.020	0.031	0.027
74	0.015	-0.030	0.039	0.017	0.031
75	0.011	0.036	-0.008	-0.005	0.021
76	-0.033	-0.002	0.017	-0.027	-0.002
77	0.022	-0.020	0.028	0.054	0.116
78	-0.023	-0.005	0.024	0.015	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

21

22

23

24

25



21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.054	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.044	0.028	0.017	0.015	0.019
35	0.066	0.001	0.015	0.009	-0.011
36	0.061	0.022	0.025	-0.018	0.019
37	0.064	0.001	0.037	-0.019	0.029
38	0.071	0.001	0.025	-0.032	0.010
39	0.087	0.013	0.037	-0.034	0.022
40	0.069	-0.007	0.069	-0.002	0.004
41	0.070	0.034	0.034	0.009	0.005
42	0.042	0.025	0.024	-0.025	0.006
43	0.083	-0.021	0.036	-0.023	0.015
44	0.073	0.005	0.032	-0.018	0.016
45	0.062	-0.006	0.056	-0.007	0.039
46	0.069	-0.009	0.023	-0.021	0.017
47	-0.034	0.012	0.006	-0.032	0.013
48	-0.014	0.001	-0.006	-0.044	0.000
49	-0.020	0.034	-0.006	0.013	-0.015
50	-0.032	0.006	0.007	-0.035	0.033
51	-0.013	0.016	0.015	-0.068	0.015
52	-0.016	-0.015	-0.012	-0.052	0.028
53	0.006	-0.002	-0.009	-0.035	0.000
54	-0.024	0.015	-0.017	-0.013	0.020
55	-0.018	0.012	0.022	0.002	-0.034
56	-0.002	-0.012	0.020	-0.020	0.004
57	-0.024	-0.021	0.025	-0.051	0.027
58	0.035	-0.010	0.007	-0.016	-0.004
59	0.030	-0.002	-0.001	0.046	0.006
60	0.033	0.010	-0.011	0.019	-0.016
61	-0.031	-0.024	-0.006	0.022	-0.004
62	-0.030	0.013	-0.001	-0.011	0.009
63	-0.006	0.025	-0.002	-0.014	-0.005

64	-0.005	0.003	-0.055	0.045	-0.014
65	0.010	-0.020	0.014	-0.029	-0.044
66	-0.016	-0.039	0.051	-0.044	-0.025
67	-0.032	-0.018	-0.043	0.000	-0.022
68	-0.004	-0.013	-0.010	0.009	0.016
69	0.036	-0.011	0.000	-0.039	0.040
70	-0.019	0.019	0.007	0.021	0.003
71	-0.037	-0.030	0.018	-0.010	-0.040
72	0.044	-0.008	0.019	-0.009	0.007
73	-0.017	0.043	-0.018	0.013	0.020
74	0.031	0.011	0.018	0.053	-0.035
75	0.011	-0.015	0.003	0.021	0.030
76	-0.021	0.027	0.025	0.000	0.027
77	-0.060	0.086	0.012	0.046	0.002
78	0.046	0.012	0.034	-0.022	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.043	-0.072	-0.288	0.256
34	-0.015	0.033	0.016	-0.010	0.001
35	-0.059	-0.039	0.002	-0.013	0.072
36	-0.041	0.001	0.020	-0.005	0.032
37	-0.037	0.002	-0.008	-0.012	0.001
38	-0.040	0.000	-0.001	0.010	0.003
39	-0.054	-0.020	-0.011	0.001	0.033
40	-0.034	-0.010	-0.043	-0.014	0.032
41	-0.028	0.001	-0.024	-0.003	0.012
42	-0.006	0.011	-0.031	-0.003	0.021
43	-0.051	-0.017	-0.020	-0.028	0.049
44	-0.052	-0.030	0.004	-0.016	0.010
45	-0.044	0.010	-0.027	0.012	0.035
46	-0.055	-0.015	-0.006	-0.008	0.013
47	-0.026	0.011	0.005	0.054	0.005
48	-0.016	-0.008	-0.007	0.054	-0.021
49	0.006	0.012	0.004	0.022	-0.028

50	0.002	-0.005	-0.026	0.052	-0.019
51	-0.002	-0.010	-0.003	0.032	-0.016
52	-0.006	0.005	0.014	0.063	-0.041
53	-0.024	-0.007	-0.010	0.040	0.022
54	0.031	0.027	-0.031	-0.008	-0.009
55	-0.017	0.024	-0.026	0.042	-0.027
56	0.007	0.010	-0.017	0.030	-0.046
57	-0.011	-0.014	-0.040	0.028	-0.011
58	0.009	0.025	-0.001	0.026	-0.051
59	0.013	-0.037	0.018	-0.008	-0.045
60	0.002	-0.018	-0.004	0.012	-0.044
61	0.009	0.042	0.044	-0.055	-0.032
62	-0.021	-0.023	-0.023	0.027	0.021
63	0.015	0.025	-0.019	-0.056	-0.014
64	-0.006	-0.008	0.000	0.005	0.039
65	-0.005	0.021	0.021	-0.002	0.048
66	-0.012	0.058	-0.015	-0.014	0.005
67	-0.027	0.009	0.020	0.026	-0.019
68	0.003	-0.013	0.012	-0.011	-0.028
69	-0.004	0.011	0.012	-0.036	-0.026
70	-0.009	-0.009	-0.002	-0.017	-0.018
71	-0.050	-0.007	-0.060	-0.025	0.010
72	-0.021	-0.016	-0.001	-0.020	0.026
73	-0.002	0.003	0.024	0.023	0.011
74	0.028	0.027	0.025	-0.046	0.051
75	0.047	-0.012	-0.019	-0.066	-0.026
76	-0.017	0.052	0.006	-0.025	0.044
77	0.016	-0.019	0.022	-0.021	-0.004
78	-0.022	-0.008	0.014	0.025	-0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.009	-0.006	-0.019	1.000	
35	0.006	0.000	0.012	0.279	1.000
36	-0.005	-0.002	0.014	0.336	0.673
37	0.028	0.008	0.008	0.246	0.429
38	-0.012	-0.006	0.005	0.317	0.619
39	0.007	0.014	0.031	0.335	0.643
40	-0.001	-0.007	0.010	0.284	0.584

41	-0.001	0.012	0.007	0.240	0.489
42	-0.033	0.022	-0.001	0.173	0.379
43	0.008	-0.004	0.018	0.332	0.638
44	-0.002	0.016	0.020	0.322	0.635
45	0.017	0.003	0.016	0.303	0.581
46	0.029	-0.018	-0.003	0.106	0.301
47	0.019	-0.009	-0.034	0.046	0.036
48	0.030	-0.018	-0.026	0.020	0.026
49	-0.002	-0.007	-0.041	-0.013	-0.007
50	0.029	-0.015	-0.033	0.015	0.004
51	0.030	-0.005	-0.012	0.019	0.013
52	0.026	-0.015	-0.034	0.040	0.029
53	0.042	-0.033	-0.020	0.029	0.043
54	0.009	-0.038	-0.005	0.015	-0.047
55	0.033	-0.017	-0.040	0.042	-0.014
56	0.025	-0.024	0.005	0.051	0.015
57	0.055	0.017	-0.030	0.024	0.000
58	0.036	0.015	-0.065	0.004	-0.023
59	0.032	-0.040	-0.032	-0.037	-0.007
60	0.021	-0.032	0.010	-0.021	-0.030
61	0.014	-0.002	0.042	-0.035	-0.002
62	-0.017	0.023	0.025	0.000	-0.002
63	-0.052	0.037	0.007	-0.007	0.012
64	-0.004	-0.002	0.024	-0.009	0.036
65	-0.019	0.016	0.013	0.050	0.035
66	-0.025	-0.007	-0.026	0.007	-0.013
67	0.011	-0.012	0.006	-0.039	0.018
68	-0.006	-0.036	0.004	0.062	-0.021
69	-0.020	0.002	0.015	-0.015	0.003
70	-0.016	0.017	-0.036	-0.011	0.014
71	-0.023	0.037	-0.035	0.005	0.044
72	-0.039	0.008	0.015	-0.006	0.008
73	0.016	0.003	0.008	-0.019	-0.024
74	-0.043	0.001	0.031	-0.069	-0.018
75	-0.028	-0.017	0.019	0.018	-0.002
76	-0.056	0.015	0.019	0.020	0.058
77	-0.015	0.022	0.010	-0.018	0.027
78	0.022	0.005	-0.020	0.141	0.329

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				

37	0.479	1.000			
38	0.703	0.456	1.000		
39	0.713	0.454	0.660	1.000	
40	0.659	0.428	0.618	0.623	1.000
41	0.563	0.350	0.507	0.517	0.494
42	0.445	0.296	0.423	0.394	0.382
43	0.741	0.467	0.678	0.691	0.635
44	0.722	0.471	0.680	0.676	0.605
45	0.699	0.452	0.631	0.649	0.586
46	0.366	0.261	0.321	0.329	0.296
47	0.039	0.029	-0.002	0.018	0.023
48	0.025	0.013	0.000	0.005	0.013
49	-0.019	-0.049	-0.015	-0.037	0.000
50	-0.014	0.013	-0.006	-0.029	-0.030
51	-0.004	0.007	-0.011	-0.008	-0.007
52	-0.003	0.024	-0.022	-0.021	-0.016
53	0.028	0.029	0.012	0.031	0.012
54	-0.029	0.014	-0.027	-0.019	-0.026
55	0.001	0.034	-0.019	-0.033	-0.023
56	0.024	0.038	-0.004	-0.010	0.001
57	-0.007	0.004	-0.028	-0.035	-0.019
58	-0.019	0.013	-0.021	-0.035	-0.059
59	-0.017	0.009	-0.007	0.016	0.012
60	-0.049	-0.044	-0.048	-0.070	-0.018
61	-0.003	-0.026	-0.039	-0.025	-0.019
62	-0.030	0.011	-0.016	-0.025	0.015
63	-0.006	0.025	0.035	-0.005	-0.025
64	0.032	0.022	0.030	0.057	0.046
65	0.051	0.027	0.034	0.055	0.028
66	0.009	0.011	0.038	0.021	0.042
67	0.025	0.021	0.026	0.036	-0.003
68	-0.002	-0.062	-0.006	-0.006	-0.002
69	-0.020	-0.008	0.011	0.015	0.024
70	-0.010	0.001	-0.032	-0.008	-0.037
71	0.018	0.028	0.025	0.041	0.009
72	0.013	0.034	0.018	0.031	0.025
73	-0.029	0.002	-0.053	-0.018	-0.055
74	-0.018	-0.053	0.003	-0.021	-0.010
75	-0.008	0.009	0.004	0.032	-0.026
76	0.050	0.003	0.061	0.063	0.029
77	0.017	0.006	-0.005	0.025	0.036
78	0.352	0.201	0.347	0.356	0.308

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.294	1.000			
43	0.535	0.418	1.000		
44	0.526	0.396	0.694	1.000	
45	0.493	0.410	0.665	0.651	1.000
46	0.279	0.205	0.339	0.323	0.292
47	-0.002	-0.017	0.029	0.008	0.030
48	-0.006	-0.015	0.030	0.013	0.007
49	-0.011	-0.017	-0.019	-0.023	-0.020
50	-0.035	0.001	-0.010	-0.021	-0.042
51	-0.023	0.006	0.014	-0.004	-0.005
52	-0.013	0.002	0.000	-0.024	-0.005
53	-0.020	0.001	0.016	0.018	0.000
54	-0.008	-0.018	-0.018	-0.027	-0.036
55	-0.018	0.005	-0.020	-0.031	-0.008
56	0.008	0.000	0.024	0.011	0.004
57	-0.006	-0.030	-0.008	-0.005	-0.029
58	-0.039	-0.029	-0.019	-0.028	-0.028
59	-0.008	0.009	-0.020	-0.040	0.001
60	-0.027	-0.037	-0.063	-0.041	-0.079
61	0.032	-0.013	-0.016	-0.027	0.003
62	-0.029	0.009	-0.028	-0.011	-0.015
63	-0.015	-0.022	0.021	0.016	0.020
64	0.043	0.017	0.050	0.031	0.044
65	0.031	0.026	0.025	0.051	0.021
66	0.027	0.044	0.049	0.018	0.028
67	0.021	-0.035	0.010	0.004	0.019
68	-0.032	-0.005	0.016	0.003	0.006
69	-0.004	0.047	0.000	-0.012	-0.008
70	-0.020	-0.016	-0.020	-0.030	-0.022
71	0.014	0.012	0.029	0.038	0.022
72	-0.019	0.025	0.008	0.028	0.033
73	-0.010	-0.018	-0.057	-0.019	-0.065
74	-0.005	-0.031	-0.014	-0.009	0.008
75	0.021	0.006	-0.008	0.014	-0.021
76	0.023	0.076	0.054	0.049	0.081
77	0.055	-0.042	0.039	0.009	0.031
78	0.265	0.178	0.344	0.344	0.312

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.010	1.000			
48	-0.011	0.591	1.000		
49	-0.040	0.418	0.482	1.000	
50	-0.033	0.528	0.706	0.451	1.000
51	-0.012	0.527	0.712	0.462	0.651
52	-0.018	0.530	0.684	0.423	0.619
53	0.011	0.439	0.587	0.364	0.531
54	-0.018	0.364	0.473	0.252	0.421
55	-0.021	0.570	0.741	0.493	0.674
56	-0.035	0.554	0.725	0.447	0.644
57	-0.021	0.520	0.685	0.442	0.615
58	-0.069	0.328	0.418	0.284	0.380
59	0.000	-0.062	-0.054	-0.044	-0.084
60	0.021	-0.093	-0.021	0.018	-0.024
61	-0.034	0.013	-0.096	0.010	-0.042
62	0.001	-0.032	-0.017	-0.080	-0.012
63	0.004	0.010	0.007	0.002	-0.066
64	-0.013	0.033	0.045	-0.041	-0.007
65	0.005	-0.022	-0.015	-0.018	-0.001
66	0.011	0.001	-0.002	-0.018	-0.008
67	0.013	0.024	-0.018	-0.010	0.042
68	-0.023	-0.014	0.040	-0.001	-0.002
69	-0.013	-0.046	-0.043	-0.033	-0.028
70	-0.022	0.036	0.071	0.024	0.024
71	-0.030	-0.010	-0.001	-0.020	0.008
72	0.069	-0.292	-0.318	-0.214	-0.294
73	-0.023	0.010	-0.031	-0.009	-0.004
74	0.044	-0.528	-0.663	-0.432	-0.608
75	-0.021	-0.484	-0.008	-0.011	-0.017
76	-0.005	-0.023	-0.041	-0.035	-0.021
77	-0.034	0.017	-0.020	-0.023	-0.045
78	0.147	0.001	0.006	-0.022	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.608	1.000			
53	0.539	0.504	1.000		
54	0.466	0.415	0.381	1.000	

55	0.692	0.650	0.549	0.462	1.000
56	0.657	0.616	0.538	0.421	0.704
57	0.656	0.580	0.496	0.410	0.664
58	0.400	0.361	0.364	0.277	0.391
59	-0.064	-0.037	-0.057	-0.051	-0.070
60	-0.011	-0.043	0.009	0.000	-0.014
61	0.021	-0.008	-0.040	-0.037	0.035
62	-0.039	-0.023	-0.010	0.011	-0.045
63	0.003	-0.007	0.012	-0.013	-0.017
64	-0.059	0.011	0.014	0.019	0.003
65	-0.002	-0.063	-0.021	-0.013	0.021
66	0.003	0.026	-0.085	-0.032	0.002
67	-0.012	-0.027	-0.003	-0.077	0.006
68	0.001	0.019	0.019	0.033	-0.111
69	0.024	-0.016	-0.038	-0.006	-0.030
70	-0.009	0.043	0.041	0.047	-0.011
71	-0.040	-0.001	0.023	-0.031	-0.002
72	-0.293	-0.240	-0.219	-0.194	-0.316
73	-0.011	-0.033	-0.030	-0.008	-0.018
74	-0.611	-0.578	-0.475	-0.411	-0.637
75	0.013	-0.020	-0.012	-0.024	-0.026
76	-0.031	-0.030	-0.025	-0.052	-0.033
77	0.004	-0.028	-0.039	-0.065	-0.021
78	-0.010	0.004	-0.003	-0.031	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.638	1.000			
58	0.399	0.352	1.000		
59	-0.058	-0.084	-0.021	1.000	
60	-0.034	-0.024	0.009	-0.014	1.000
61	-0.009	0.049	-0.054	-0.016	0.034
62	-0.034	-0.026	-0.071	0.001	-0.016
63	-0.021	0.001	0.023	0.035	0.009
64	0.054	-0.038	0.014	0.086	-0.029
65	0.026	0.005	-0.024	-0.062	0.002
66	0.002	-0.016	-0.038	-0.030	-0.036
67	0.008	0.020	-0.016	-0.027	-0.047
68	-0.022	-0.071	0.064	0.018	-0.044
69	-0.101	-0.010	0.036	0.025	-0.015
70	0.011	-0.036	0.043	0.046	-0.050



71	0.007	-0.025	-0.025	-0.029	-0.004
72	-0.308	-0.267	-0.209	-0.007	-0.002
73	-0.039	-0.004	-0.024	0.029	-0.036
74	-0.615	-0.561	-0.370	0.071	0.047
75	0.002	-0.018	-0.025	0.042	0.007
76	-0.033	-0.025	-0.042	-0.013	-0.625
77	-0.019	-0.020	-0.043	0.011	-0.099
78	-0.033	-0.014	-0.064	-0.028	-0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.060	1.000			
63	-0.037	0.001	1.000		
64	-0.094	0.049	-0.025	1.000	
65	0.073	0.025	-0.043	-0.011	1.000
66	0.056	-0.014	0.017	-0.066	0.023
67	0.011	0.001	0.005	-0.003	0.039
68	-0.126	-0.003	0.002	0.008	-0.059
69	0.066	-0.021	-0.050	-0.071	-0.035
70	-0.126	0.012	0.045	0.042	-0.063
71	-0.039	-0.004	-0.019	0.031	0.032
72	-0.036	-0.003	-0.007	0.001	-0.033
73	0.050	0.001	-0.019	0.007	0.022
74	-0.004	0.027	0.040	-0.038	0.017
75	-0.051	0.018	-0.008	-0.034	0.019
76	0.013	0.016	-0.006	-0.002	0.028
77	-0.041	0.010	0.058	0.014	-0.002
78	-0.021	0.037	-0.011	0.011	-0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.075	1.000			
68	-0.048	-0.019	1.000		
69	0.010	-0.014	-0.004	1.000	
70	-0.033	-0.044	0.139	-0.059	1.000
71	0.046	0.025	-0.051	-0.036	0.018
72	0.038	-0.034	0.046	-0.006	0.043
73	-0.007	0.036	-0.055	0.000	-0.010

74	-0.005	-0.025	-0.003	-0.007	-0.026
75	0.004	-0.010	0.027	0.025	-0.017
76	0.027	0.028	-0.003	0.042	0.018
77	-0.012	0.032	-0.002	0.008	0.082
78	0.020	-0.010	-0.006	0.010	-0.003

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.009	1.000			
73	0.008	-0.116	1.000		
74	-0.025	0.285	0.005	1.000	
75	0.021	0.074	-0.002	0.038	1.000
76	0.011	0.006	0.004	0.019	0.018
77	0.033	-0.093	0.000	0.037	-0.004
78	0.011	0.058	-0.089	0.014	0.007

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	0.062	1.000	
78	0.025	0.177	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.028	73
200	1.017	73
300	1.009	73
400	1.012	43

500	1.015	43
600	1.010	43
700	1.004	43
800	1.003	61
900	1.003	76
1000	1.005	35

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		
PRESS15	0.915	0.915	0.914	0.915	

DUTIES15      0.915      0.915      0.915      0.915      0.915

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16  
 Category 1    0.881      4884.000  
 Category 2    0.119      662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL	43.091	0.291	0.000	22.41%	0.000	15.000	35.000

	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-14.500 71.552

Posterior Predictive P-Value 0.118

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level



PHYCAT16	ON					
PHY15		0.971	0.071	0.000	0.837	1.107 *
CHOICE15		-0.069	0.025	0.003	-0.121	-0.021 *
BULLY15		0.032	0.048	0.258	-0.063	0.121
DUTIES15		-0.031	0.028	0.132	-0.086	0.023
PRESS15		-0.035	0.026	0.094	-0.083	0.017
KES15		0.226	0.045	0.000	0.133	0.315 *
KES15	WITH					
PHY15		0.052	0.004	0.000	0.044	0.059 *
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073 *
BULLY15		0.058	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.085	0.116 *
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092 *
PHY15	WITH					
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022 *
BULLY15		0.012	0.003	0.001	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.026	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.072	-0.044 *
PRESS15		-0.087	0.015	0.000	-0.117	-0.060 *
DUTIES15		0.173	0.014	0.000	0.145	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.119 *
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066 *
PRESS15	WITH					
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158 *
Means						
PHY15		0.002	0.006	0.373	-0.011	0.015
KES15		0.001	0.007	0.431	-0.014	0.015
CHOICE15		-0.002	0.015	0.457	-0.031	0.027
BULLY15		0.000	0.007	0.472	-0.013	0.014
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.013	0.473	-0.028	0.026
Variances						
PHY15		0.233	0.005	0.000	0.224	0.242 *
KES15		0.290	0.006	0.000	0.278	0.301 *

CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.566	0.775	0.000	2.286	5.328
EAT		4.191	0.825	0.000	2.878	6.137
ALC		2.841	0.843	0.000	1.455	4.679
PHY		3.791	0.963	0.000	2.031	5.845
PSY		3.882	0.816	0.000	2.609	5.730
SMO		4.381	0.997	0.000	2.733	6.650
TER		3.128	0.817	0.000	1.732	5.005
BEN		2.192	0.733	0.000	0.888	3.795
HPR		4.238	0.841	0.000	2.894	6.197
SPR		3.989	0.815	0.000	2.622	5.878
CUL		3.578	0.771	0.000	2.343	5.316
FEL		79.306	31.736	0.003	22.285	151.112

SING	BY					
PHY		1.000	0.000	0.000	1.000	1.000

PHYCAT16	ON					
PROG		-0.472	0.229	0.015	-0.968	-0.056
SING		-0.147	0.112	0.063	-0.395	0.043

PROG	WITH					
SING		0.000	0.032	0.492	-0.062	0.065

Intercepts

ACC	0.467	0.073	0.000	0.320	0.605	*
ACT	0.118	0.141	0.204	-0.161	0.409	
EAT	0.310	0.152	0.019	0.015	0.637	*
ALC	0.052	0.155	0.370	-0.244	0.355	
PHY	0.208	0.149	0.079	-0.099	0.491	
PSY	0.095	0.152	0.263	-0.201	0.421	
SMO	0.321	0.188	0.047	-0.061	0.692	
TER	0.186	0.155	0.102	-0.116	0.498	
BEN	0.041	0.137	0.387	-0.227	0.321	
HPR	0.224	0.160	0.083	-0.099	0.544	
SPR	0.213	0.151	0.074	-0.074	0.517	

CUL	0.024	0.144	0.439	-0.261	0.323	
FEL	42.664	5.555	0.000	31.609	53.730	*
Thresholds						
PHYCAT16\$1	1.334	0.040	0.000	1.260	1.417	*
Variances						
PROG	0.056	0.018	0.000	0.032	0.103	*
SING	0.260	0.124	0.000	0.096	0.559	*
Residual Variances						
PHYCAT16	0.009	0.010	0.000	0.000	0.037	*
ACC	0.251	0.052	0.000	0.174	0.377	*
ACT	0.447	0.101	0.000	0.302	0.688	*
EAT	0.294	0.078	0.000	0.178	0.486	*
ALC	0.875	0.184	0.000	0.611	1.321	*
PHY	0.224	0.131	0.000	0.016	0.509	*
PSY	0.422	0.099	0.000	0.273	0.655	*
SMO	0.807	0.185	0.000	0.531	1.243	*
TER	0.769	0.162	0.000	0.530	1.158	*
BEN	0.772	0.155	0.000	0.530	1.143	*
HPR	0.379	0.096	0.000	0.240	0.616	*
SPR	0.416	0.096	0.000	0.272	0.652	*
CUL	0.447	0.100	0.000	0.296	0.687	*
FEL	1464.372	311.011	0.000	1030.935	2241.535	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%		Significance
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.366	0.462	*
CHOICE15		-0.064	0.023	0.003	-0.111	-0.020	*
BULLY15		0.014	0.021	0.258	-0.027	0.053	
DUTIES15		-0.026	0.023	0.132	-0.071	0.019	
PRESS15		-0.031	0.023	0.094	-0.073	0.015	
KES15		0.108	0.021	0.000	0.063	0.150	*

KES15	WITH					
PHY15		0.198	0.014	0.000	0.171	0.225 *
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131 *
BULLY15		0.219	0.013	0.000	0.193	0.245 *
PRESS15		0.186	0.013	0.000	0.159	0.212 *
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185 *
PHY15	WITH					
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044 *
BULLY15		0.050	0.014	0.001	0.022	0.078 *
PRESS15		0.081	0.014	0.000	0.054	0.107 *
DUTIES15		-0.080	0.014	0.000	-0.109	-0.052 *
CHOICE15	WITH					
BULLY15		-0.115	0.014	0.000	-0.141	-0.087 *
PRESS15		-0.084	0.014	0.000	-0.112	-0.058 *
DUTIES15		0.179	0.014	0.000	0.152	0.205 *
BULLY15	WITH					
PRESS15		0.214	0.013	0.000	0.189	0.239 *
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147 *
PRESS15	WITH					
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173 *
Means						
PHY15		0.005	0.013	0.373	-0.022	0.031
KES15		0.002	0.014	0.431	-0.025	0.028
CHOICE15		-0.002	0.014	0.457	-0.030	0.026
BULLY15		0.001	0.014	0.472	-0.026	0.029
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.014	0.473	-0.030	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
PROG	BY					

ACC	0.424	0.060	0.000	0.326	0.555	*
ACT	0.786	0.063	0.000	0.629	0.880	*
EAT	0.879	0.042	0.000	0.773	0.937	*
ALC	0.589	0.108	0.000	0.337	0.757	*
PHY	0.787	0.127	0.000	0.515	1.013	*
PSY	0.818	0.056	0.000	0.686	0.902	*
SMO	0.759	0.071	0.000	0.576	0.866	*
TER	0.645	0.096	0.000	0.419	0.789	*
BEN	0.508	0.121	0.000	0.236	0.699	*
HPR	0.854	0.049	0.000	0.729	0.922	*
SPR	0.826	0.055	0.000	0.694	0.905	*
CUL	0.785	0.065	0.000	0.622	0.880	*
FEL	0.436	0.132	0.003	0.147	0.664	*
SING BY						
PHY	0.449	0.107	0.000	0.259	0.672	*
PHYCAT16 ON						
PROG	-0.662	0.233	0.015	-0.977	-0.097	*
SING	-0.444	0.264	0.063	-0.885	0.127	
PROG WITH						
SING	-0.003	0.223	0.492	-0.423	0.430	
Intercepts						
ACC	0.839	0.151	0.000	0.542	1.126	*
ACT	0.107	0.129	0.204	-0.146	0.363	
EAT	0.274	0.133	0.019	0.013	0.555	*
ALC	0.046	0.131	0.370	-0.206	0.302	
PHY	0.184	0.132	0.079	-0.083	0.445	
PSY	0.085	0.132	0.263	-0.172	0.354	
SMO	0.230	0.136	0.047	-0.045	0.498	
TER	0.162	0.133	0.102	-0.099	0.413	
BEN	0.040	0.132	0.387	-0.210	0.311	
HPR	0.190	0.135	0.083	-0.082	0.452	
SPR	0.187	0.131	0.074	-0.065	0.454	
CUL	0.023	0.131	0.439	-0.231	0.287	
FEL	0.985	0.168	0.000	0.673	1.345	*
Thresholds						
PHYCAT16\$1	7.569	2.342	0.000	4.963	13.908	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	

SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.291	0.225	0.000	0.013	0.817	*
ACC	0.820	0.053	0.000	0.692	0.894	*
ACT	0.383	0.096	0.000	0.226	0.605	*
EAT	0.227	0.071	0.000	0.121	0.403	*
ALC	0.653	0.120	0.000	0.427	0.886	*
PHY	0.172	0.104	0.000	0.012	0.403	*
PSY	0.331	0.088	0.000	0.186	0.529	*
SMO	0.424	0.103	0.000	0.250	0.668	*
TER	0.584	0.117	0.000	0.377	0.825	*
BEN	0.742	0.115	0.000	0.512	0.944	*
HPR	0.270	0.080	0.000	0.150	0.468	*
SPR	0.318	0.087	0.000	0.181	0.518	*
CUL	0.384	0.098	0.000	0.226	0.613	*
FEL	0.810	0.109	0.000	0.559	0.978	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.022	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.709	0.225	0.000	0.183	0.987
ACC	0.180	0.053	0.000	0.106	0.308
ACT	0.617	0.096	0.000	0.395	0.774
EAT	0.773	0.071	0.000	0.597	0.879
ALC	0.347	0.120	0.000	0.114	0.573
PHY	0.828	0.104	0.000	0.597	0.988
PSY	0.669	0.088	0.000	0.471	0.814
SMO	0.576	0.103	0.000	0.332	0.750
TER	0.416	0.117	0.000	0.175	0.623
BEN	0.258	0.115	0.000	0.056	0.488
HPR	0.730	0.080	0.000	0.532	0.850

SPR	0.682	0.087	0.000	0.482	0.819
CUL	0.616	0.098	0.000	0.387	0.774
FEL	0.190	0.109	0.000	0.022	0.441

# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

DUTIES15

PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
	_____	_____
PRESS15	0	
DUTIES15	0	0

	ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	1	2	3	4

	ALPHA	
	PRESS15	DUTIES15
	_____	_____
	5	6

	BETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0	7	8	9	10



PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

PHYCAT16

78

NU

PHYCAT16	ACC	ACT	EAT	ALC
0	34	35	36	37

NU

PHY	PSY	SMO	TER	BEN
38	39	40	41	42

NU

HPR	SPR	CUL	FEL
43	44	45	46

LAMBDA

PROG	SING	PHYCAT16
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PHYCAT16	0	0	0
ACC	0	0	0
ACT	47	0	0
EAT	48	0	0
ALC	49	0	0
PHY	50	0	0
PSY	51	0	0
SMO	52	0	0
TER	53	0	0
BEN	54	0	0
HPR	55	0	0
SPR	56	0	0
CUL	57	0	0
FEL	58	0	0

THETA

PHYCAT16	ACC	ACT	EAT	ALC
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PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA				
	PHY	PSY	SMO	TER	BEN
	_____	_____	_____	_____	_____
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA			
	HPR	SPR	CUL	FEL
	_____	_____	_____	_____
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

	ALPHA		
	PROG	SING	PHYCAT16
	_____	_____	_____
	0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

	TAU
	PHYCAT16
	<u>0.000</u>

	NU				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

	NU
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 1.000	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
<hr/>	<hr/>

PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU	
PHYCAT16	
	<hr/> 1.110

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<hr/> 0.000	<hr/> 0.485	<hr/> 0.224	<hr/> 0.466	<hr/> 0.673

NU	PHY	PSY	SMO	TER	BEN
	<hr/> 0.342	<hr/> 0.251	<hr/> 0.347	<hr/> 0.385	<hr/> 0.212

NU	HPR	SPR	CUL	FEL
	<hr/> 0.409	<hr/> 0.433	<hr/> -0.067	<hr/> 45.726

LAMBDA			
PROG		SING	PHYCAT16
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 1.000
ACC	1.000	0.000	0.000
ACT	1.000	0.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	1.000	0.000
PSY	1.000	0.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000
BEN	1.000	0.000	0.000

HPR	1.000	0.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	0.000	0.000
FEL	1.000	0.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
HPR	0.426			
SPR	0.000	0.361		



CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG		SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000

	BETA		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

	PSI		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	1.000		
SING	0.000	1.000	
PHYCAT16	0.000	0.000	1.000

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity

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Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.411604D-04				
2	0.917803D-05	0.541359D-04			
3	-0.847138D-05	-0.192238D-04	0.220894D-03		
4	0.153945D-05	0.975472D-05	-0.126624D-04	0.461415D-04	
5	0.711034D-05	0.190903D-04	-0.193725D-04	0.186873D-04	0.190751D-03
6	-0.571065D-05	-0.160909D-04	0.361012D-04	-0.159739D-04	-0.417501D-04
7	0.663022D-05	0.110059D-05	0.413525D-05	-0.661057D-05	-0.313029D-04
8	0.715370D-05	-0.458030D-05	-0.688814D-05	-0.509975D-05	-0.316300D-04
9	0.320569D-05	0.649212D-05	0.403707D-05	0.627644D-05	0.206316D-05
10	-0.703525D-07	0.127655D-04	0.181913D-04	0.118272D-04	0.125337D-04
11	0.363921D-05	0.241024D-05	0.329627D-06	0.487064D-06	0.159666D-04
12	-0.358249D-05	-0.239186D-05	-0.397187D-05	-0.689031D-05	0.153366D-04
13	0.427166D-06	0.717586D-06	-0.150632D-05	0.150821D-06	0.149749D-05
14	-0.693736D-06	0.125733D-05	-0.127158D-05	-0.395658D-07	-0.812263D-06
15	-0.257819D-06	0.422021D-06	-0.340043D-05	0.806958D-06	0.157526D-05
16	-0.182046D-05	-0.141975D-05	-0.442831D-05	0.598358D-06	-0.388183D-05
17	-0.207972D-06	-0.140193D-05	0.647511D-05	-0.161715D-05	-0.532136D-06

18	0.224105D-05	0.968478D-05	-0.988050D-05	0.180274D-05	0.440800D-05
19	-0.665459D-06	-0.504052D-06	0.991548D-06	0.441351D-06	-0.290896D-05
20	0.995196D-08	-0.692840D-06	-0.131029D-05	-0.160573D-06	-0.120998D-05
21	-0.176844D-06	0.879763D-06	0.266721D-05	0.151536D-05	0.190760D-05
22	-0.808301D-06	-0.190440D-06	-0.111615D-05	0.887050D-06	0.572568D-06
23	-0.394592D-06	0.630795D-06	-0.192790D-05	0.403667D-06	-0.253694D-05
24	0.562586D-06	-0.775536D-06	0.247982D-05	-0.167615D-05	0.719976D-06
25	-0.402318D-05	0.531019D-05	-0.201718D-05	-0.880694D-06	0.929759D-05
26	-0.213599D-06	-0.984357D-06	0.204180D-05	0.977152D-06	-0.291806D-05
27	-0.152127D-05	-0.900238D-05	0.115197D-04	0.205025D-05	-0.111117D-04
28	-0.118854D-05	-0.727018D-06	0.199031D-06	0.730114D-07	0.790756D-07
29	-0.191028D-05	-0.119227D-05	0.298471D-05	-0.170968D-05	-0.487235D-05
30	0.129456D-05	0.280565D-05	-0.332574D-05	0.123956D-05	-0.649635D-05
31	0.167805D-06	0.800622D-06	-0.105405D-06	-0.250955D-06	0.142110D-07
32	-0.142350D-05	0.383958D-05	0.161143D-06	-0.123596D-05	0.415158D-05
33	0.258004D-05	-0.323335D-05	-0.214980D-04	0.399197D-05	0.744261D-06
34	-0.185973D-04	-0.120968D-04	0.187473D-04	-0.497969D-05	0.323431D-04
35	-0.254830D-04	0.314714D-05	0.441031D-04	0.119532D-04	0.350578D-04
36	0.705299D-05	0.138211D-04	0.381181D-04	0.341310D-04	0.889406D-04
37	0.119612D-04	-0.319148D-04	0.397476D-04	-0.483287D-05	0.525413D-04
38	-0.107909D-04	0.337660D-05	0.718575D-04	0.477696D-04	-0.226253D-05
39	-0.132143D-04	0.207522D-05	-0.592068D-04	0.218135D-04	0.461597D-04
40	0.393097D-04	0.803021D-05	0.286587D-04	0.369307D-04	0.349725D-04
41	-0.189028D-04	0.379025D-04	-0.105763D-04	0.266258D-04	0.404277D-04
42	0.400240D-04	-0.300029D-04	0.111030D-03	0.349011D-06	0.163860D-04
43	0.286781D-04	0.243155D-04	0.368209D-04	0.417618D-04	0.105319D-03
44	-0.176524D-04	0.649002D-05	0.337887D-05	0.285263D-04	0.946215D-04
45	0.479809D-05	0.388710D-05	-0.324957D-05	0.136766D-04	0.843541D-04
46	-0.340711D-04	0.676503D-03	0.330321D-03	0.156286D-02	0.221398D-02
47	0.108771D-03	0.109772D-03	-0.175996D-03	0.115634D-04	0.207026D-03
48	0.175712D-03	0.206769D-03	-0.121804D-03	0.165727D-03	-0.368071D-04
49	0.188231D-04	0.167194D-03	0.881816D-04	-0.620008D-05	0.352934D-03
50	0.116865D-04	-0.669151D-05	-0.286753D-03	0.242653D-04	0.888253D-04
51	0.790497D-04	0.215013D-03	-0.532747D-03	0.269504D-03	0.138676D-03
52	0.210069D-03	0.103408D-03	-0.186999D-04	-0.605614D-04	-0.140472D-03
53	0.159345D-04	0.107091D-03	-0.345587D-03	-0.121001D-04	-0.239858D-03
54	0.205301D-03	0.317184D-03	-0.453670D-03	0.724137D-04	0.166552D-03
55	0.241000D-03	0.635568D-04	-0.123142D-03	-0.870827D-04	0.937320D-04
56	0.382895D-03	0.343951D-03	-0.246089D-03	0.167132D-03	0.100176D-03
57	0.137306D-03	0.290665D-03	-0.440486D-03	-0.675822D-05	0.979382D-04
58	-0.679248D-03	0.631299D-02	-0.168517D-01	0.951295D-02	0.857700D-02
59	-0.626580D-05	0.732477D-05	0.377457D-04	0.199314D-05	-0.396339D-04
60	0.219517D-04	0.316074D-04	-0.729466D-04	0.125624D-04	0.578783D-04
61	0.850148D-05	-0.652803D-06	-0.282611D-04	-0.207558D-04	-0.224553D-04

62	0.783832D-05	0.733476D-04	-0.858056D-06	0.831697D-05	-0.121855D-04
63	0.133198D-04	-0.203052D-04	0.665452D-04	-0.925349D-05	0.491844D-06
64	0.536197D-04	0.257753D-04	0.231537D-04	-0.983490D-05	-0.156203D-05
65	0.212728D-05	-0.771127D-05	0.192592D-04	0.118352D-04	0.509954D-04
66	0.658118D-04	-0.170829D-04	0.151216D-05	0.515737D-05	-0.924595D-04
67	-0.868487D-05	-0.257118D-04	-0.666715D-04	-0.634636D-05	-0.697240D-04
68	-0.448622D-05	0.968079D-05	0.197310D-04	-0.290417D-05	-0.198016D-04
69	-0.870000D-05	-0.484377D-05	-0.336408D-04	-0.493748D-05	0.361927D-04
70	-0.222397D-04	-0.209260D-04	0.757581D-04	-0.149142D-04	-0.181134D-04
71	-0.236396D-02	0.718976D-01	-0.924373D-01	0.101140D+00	0.116977D+00
72	0.374813D-04	0.388784D-04	0.260085D-04	0.134527D-04	-0.854400D-04
73	0.160797D-04	0.552095D-04	0.214355D-05	0.593919D-05	0.474033D-05
74	-0.177824D-05	-0.344126D-05	0.136284D-05	0.237373D-05	0.976084D-06
75	0.251993D-05	0.113778D-04	0.570435D-05	0.220009D-05	-0.442955D-05
76	0.176002D-04	0.176491D-05	-0.374919D-04	0.739702D-05	0.122436D-04
77	-0.138385D-05	-0.199725D-05	0.434717D-05	0.854256D-06	0.559313D-05
78	0.247981D-05	-0.278951D-05	-0.738088D-05	0.123227D-05	-0.499941D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177393D-03				
7	0.229302D-04	0.502458D-02			
8	-0.256345D-04	-0.370930D-03	0.203846D-02		
9	-0.147792D-04	0.398934D-04	0.133893D-03	0.631519D-03	
10	0.521272D-05	-0.131538D-03	-0.309451D-03	0.158372D-04	0.228024D-02
11	-0.122124D-04	-0.775442D-05	-0.164512D-03	0.151818D-04	-0.214128D-03
12	0.129748D-04	0.359276D-04	0.189138D-03	-0.106069D-03	0.803650D-04
13	0.203536D-07	0.892696D-05	0.181523D-05	-0.238848D-05	-0.509646D-06
14	-0.811976D-08	0.182532D-05	-0.535246D-05	-0.418635D-05	0.105084D-04
15	-0.218909D-05	-0.115672D-04	-0.376997D-05	-0.385569D-05	0.928484D-05
16	-0.158539D-05	-0.107922D-04	0.797693D-05	0.160093D-05	0.210119D-05
17	-0.118708D-05	0.663691D-05	-0.535129D-05	-0.745072D-06	0.418935D-05
18	-0.382330D-05	-0.215798D-04	-0.207134D-04	-0.226029D-04	-0.200429D-04
19	0.884367D-06	-0.913404D-05	0.286888D-05	0.704785D-06	0.423905D-05
20	0.612998D-06	0.684156D-06	-0.166514D-05	0.219743D-06	0.653737D-05
21	-0.147642D-05	0.999747D-05	-0.216413D-05	0.382841D-05	-0.116195D-04
22	-0.293937D-05	0.551812D-05	0.621585D-06	-0.864084D-06	0.938296D-06
23	-0.126586D-05	0.164726D-05	0.189025D-04	0.234898D-05	0.107076D-04
24	0.219090D-05	-0.364015D-05	-0.254518D-05	-0.603666D-05	0.931728D-05
25	0.181308D-05	-0.316470D-04	-0.860121D-05	0.229542D-05	0.155218D-04
26	-0.338170D-05	0.413211D-05	-0.585029D-05	0.304298D-06	-0.320814D-05
27	0.957083D-06	-0.212531D-04	-0.967819D-05	0.737021D-05	0.319284D-04

28	0.111847D-05	0.232694D-04	-0.106820D-04	-0.200355D-05	-0.566981D-05
29	0.335131D-05	0.175411D-04	-0.169564D-04	0.870816D-06	0.785190D-05
30	-0.108472D-05	-0.274613D-04	-0.925128D-05	-0.384707D-05	-0.165678D-04
31	0.320392D-05	0.303332D-05	0.312010D-06	0.576905D-06	0.350077D-05
32	0.198658D-05	0.375399D-04	0.130132D-05	0.132610D-04	-0.111095D-05
33	-0.128921D-05	0.888050D-05	-0.128422D-04	0.484151D-05	-0.821879D-05
34	0.193073D-04	-0.613012D-04	0.378998D-04	-0.776591D-04	-0.727367D-04
35	0.587108D-04	-0.208708D-03	0.249354D-03	0.339406D-04	-0.198113D-04
36	0.389549D-04	-0.118723D-03	0.282804D-03	0.208155D-03	0.648185D-04
37	0.915851D-04	-0.612969D-03	0.264966D-03	0.847798D-04	-0.101753D-04
38	0.493800D-04	0.401360D-03	0.134962D-05	0.160933D-03	-0.735602D-04
39	0.949333D-04	-0.481310D-04	0.155315D-03	0.165605D-03	-0.610192D-04
40	0.362348D-04	-0.362753D-03	0.420592D-03	0.441666D-04	0.219284D-04
41	0.294019D-05	-0.492447D-03	0.198244D-03	0.137014D-03	-0.374950D-04
42	-0.579490D-04	-0.174083D-03	0.583352D-04	0.486001D-04	0.516493D-04
43	0.114382D-04	-0.259260D-03	0.421953D-03	0.141497D-03	-0.176311D-04
44	0.364155D-04	-0.150155D-03	0.246222D-03	0.137842D-03	-0.514883D-04
45	0.242237D-04	-0.529446D-03	0.314185D-03	0.144904D-03	-0.103835D-03
46	-0.251731D-03	-0.347212D-02	0.493995D-02	0.228951D-02	0.918214D-02
47	0.654552D-04	-0.160817D-02	0.151909D-02	-0.440774D-04	-0.707213D-04
48	0.889498D-04	-0.174651D-02	0.130146D-02	-0.331615D-03	0.178799D-02
49	-0.902332D-04	0.176567D-02	0.145029D-02	-0.481430D-03	-0.271576D-04
50	-0.461931D-04	-0.100311D-03	0.175643D-02	0.451278D-03	0.117107D-02
51	0.115869D-03	-0.233857D-02	0.106539D-02	-0.101820D-05	0.288093D-03
52	0.108924D-03	0.540992D-03	0.116297D-02	-0.469301D-03	0.361700D-03
53	0.305612D-04	-0.613919D-03	0.713017D-03	-0.847665D-03	0.333167D-03
54	0.745488D-05	0.103520D-02	-0.268286D-03	-0.668181D-03	0.176326D-02
55	0.866376D-04	-0.113287D-02	0.534267D-03	0.281353D-03	0.113431D-02
56	-0.113934D-04	-0.109594D-02	0.155097D-02	0.815083D-04	-0.306994D-03
57	0.208322D-03	-0.212480D-02	0.928404D-03	-0.838749D-04	0.156443D-02
58	0.332450D-02	-0.102276D+00	0.546578D-01	-0.996019D-03	0.752466D-02
59	0.279161D-04	0.369572D-04	0.531006D-04	0.373109D-04	0.494385D-04
60	-0.327047D-04	0.190450D-03	0.287569D-04	-0.998137D-04	0.143158D-05
61	0.526919D-04	0.307895D-04	-0.242327D-05	0.606521D-04	-0.220165D-04
62	-0.338434D-04	0.284438D-03	-0.111884D-03	0.745024D-04	0.377239D-04
63	-0.405364D-05	0.559696D-04	-0.144106D-03	0.175575D-04	0.204047D-03
64	0.376264D-04	0.228412D-03	0.950030D-04	0.179411D-04	-0.597146D-04
65	-0.146031D-04	-0.229696D-03	-0.118975D-03	0.109650D-03	0.677607D-04
66	0.421864D-04	-0.296905D-04	0.253236D-03	-0.104628D-03	-0.276887D-03
67	0.110818D-04	-0.295121D-03	0.786613D-04	-0.434292D-04	-0.198185D-03
68	0.551563D-04	-0.198140D-03	0.633111D-04	-0.112505D-03	0.152234D-04
69	-0.154264D-04	-0.982969D-04	0.147634D-04	0.101408D-03	-0.943506D-04
70	-0.197509D-04	0.401451D-03	-0.202849D-04	0.613572D-04	-0.271518D-04
71	-0.121402D+00	0.630583D-01	0.122863D+00	-0.194593D+00	-0.244389D+00

72	0.610761D-04	0.341608D-03	-0.527910D-03	-0.400296D-03	-0.162680D-03
73	0.145727D-04	0.160797D-03	0.913701D-04	0.951748D-04	-0.970636D-05
74	-0.644327D-05	0.243848D-04	-0.265645D-04	0.749474D-05	-0.200036D-04
75	-0.320083D-05	-0.910856D-04	0.742879D-05	-0.435687D-04	-0.118886D-04
76	0.135950D-04	0.192806D-03	0.865282D-04	0.443954D-04	-0.218725D-03
77	0.168501D-05	-0.136794D-04	-0.204096D-04	0.129683D-04	0.754402D-05
78	0.490935D-05	0.107694D-02	0.566575D-04	0.809891D-05	-0.422836D-05

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	11	12	13	14	15
11	0.684530D-03				
12	0.133077D-03	0.789610D-03			
13	-0.313512D-05	0.728167D-06	0.207453D-04		
14	-0.482655D-06	0.189529D-05	0.413587D-05	0.140543D-04	
15	0.630637D-06	-0.797943D-06	0.413219D-06	0.591243D-05	0.333594D-04
16	0.132409D-06	0.652916D-05	-0.419335D-05	-0.514142D-05	-0.279180D-05
17	-0.237539D-05	0.352622D-05	-0.491764D-06	-0.330300D-05	-0.121361D-04
18	0.805245D-05	0.164643D-05	0.570450D-06	0.116181D-05	0.821961D-05
19	-0.147759D-05	-0.366790D-06	0.996307D-06	0.312907D-05	0.119715D-05
20	-0.160948D-05	-0.284024D-05	-0.105438D-06	0.107891D-05	0.679659D-05
21	-0.127464D-05	-0.218933D-05	-0.675685D-06	-0.862314D-06	-0.905256D-06
22	0.419596D-05	0.448172D-05	0.429222D-06	-0.802913D-07	0.117092D-05
23	-0.941069D-05	-0.175683D-05	0.427867D-05	0.475503D-05	0.385495D-05
24	-0.289409D-05	0.274497D-05	0.804734D-06	0.379615D-05	0.101221D-04
25	0.773912D-05	-0.145038D-04	-0.192487D-05	-0.113767D-05	-0.355167D-05
26	-0.243295D-05	-0.601567D-05	0.874516D-06	0.174871D-05	0.148131D-05
27	-0.234492D-04	0.781016D-05	0.219023D-07	0.477158D-05	0.727727D-05
28	0.246686D-05	0.470794D-05	-0.249070D-05	-0.544730D-05	-0.238866D-05
29	-0.718676D-06	-0.639234D-05	-0.146543D-05	-0.321582D-05	-0.118601D-04
30	-0.135373D-05	-0.311119D-05	0.221617D-05	0.221085D-05	0.281612D-05
31	0.389685D-05	0.191618D-05	-0.941537D-06	-0.232739D-06	-0.236107D-05
32	0.222151D-04	0.211762D-05	-0.232534D-05	-0.242042D-05	-0.506940D-05
33	-0.150662D-04	0.357833D-05	0.551646D-05	0.221365D-05	-0.128629D-05
34	-0.114997D-04	-0.104060D-04	-0.767260D-06	-0.263773D-05	-0.595331D-05
35	0.386828D-04	0.191095D-03	0.179235D-05	0.292279D-05	-0.291163D-04
36	-0.820901D-05	0.121334D-03	0.958242D-05	-0.150915D-04	-0.854388D-05
37	0.462696D-04	0.117438D-03	-0.111792D-04	-0.435200D-05	0.162120D-05
38	-0.221265D-04	0.178654D-04	-0.115181D-04	0.697898D-05	-0.183011D-04
39	0.184910D-03	0.194984D-03	-0.942499D-05	-0.794847D-05	-0.912632D-05
40	0.390636D-04	0.131555D-03	0.329396D-05	-0.151934D-04	-0.443097D-04
41	0.141803D-03	0.189548D-03	0.247964D-04	-0.644630D-06	0.118167D-04
42	0.209355D-03	0.139718D-03	-0.110958D-04	-0.849402D-05	-0.149827D-04

43	0.105256D-03	0.150867D-03	0.363333D-05	-0.139250D-05	0.562972D-05
44	0.217086D-04	0.152248D-04	-0.140923D-05	-0.121894D-04	-0.200585D-04
45	0.560321D-04	0.170876D-03	-0.192364D-04	0.596212D-06	-0.113247D-04
46	-0.669615D-02	0.383410D-02	0.122524D-03	-0.479246D-03	0.561901D-03
47	-0.134297D-04	0.496757D-03	0.134560D-04	-0.113670D-03	0.949294D-04
48	-0.291925D-03	0.128201D-02	0.660319D-05	-0.126882D-03	0.637848D-05
49	-0.352476D-03	0.978062D-03	-0.193498D-04	-0.643128D-04	0.862984D-04
50	-0.398488D-04	-0.251501D-03	-0.176177D-04	-0.105482D-03	0.102872D-03
51	-0.179765D-03	0.543149D-03	-0.807480D-04	-0.140814D-03	0.148046D-05
52	-0.472816D-03	0.604304D-03	-0.623414D-04	-0.685610D-04	-0.181908D-04
53	0.161441D-03	0.577967D-03	-0.632567D-04	-0.160744D-03	-0.630795D-04
54	0.408173D-04	0.576562D-03	-0.545264D-04	0.230983D-04	0.102824D-03
55	-0.179733D-03	0.802549D-03	0.487164D-04	-0.606465D-04	-0.920104D-05
56	0.263329D-03	0.474425D-03	0.718558D-04	-0.686491D-04	0.500697D-05
57	-0.522914D-03	0.533122D-03	0.124594D-03	-0.193266D-04	0.271512D-04
58	-0.118042D-01	0.684443D-02	0.262998D-02	-0.936719D-03	-0.402441D-02
59	0.639036D-05	0.662194D-04	-0.346237D-05	-0.985171D-06	0.158870D-05
60	-0.738345D-05	0.148851D-03	-0.468658D-05	-0.163168D-04	-0.185032D-04
61	-0.191277D-04	-0.675710D-04	-0.256498D-05	-0.489142D-05	-0.289855D-04
62	-0.266109D-03	-0.191203D-03	-0.138265D-04	-0.579950D-05	-0.333897D-04
63	0.152557D-03	0.857481D-04	0.225950D-06	0.100552D-04	-0.437799D-05
64	0.840014D-04	0.958038D-05	0.114102D-05	0.388485D-05	-0.158270D-04
65	0.100274D-04	0.255221D-04	0.197713D-04	-0.230833D-04	-0.504028D-04
66	0.112566D-03	0.180108D-03	-0.853299D-05	0.768448D-05	0.381991D-04
67	-0.135065D-04	0.131982D-03	-0.156300D-04	-0.462357D-05	0.510216D-05
68	-0.813056D-04	0.386460D-04	-0.111494D-05	-0.483534D-05	0.552461D-05
69	-0.468409D-05	-0.159918D-04	-0.135572D-04	0.910871D-06	0.826860D-05
70	0.198435D-03	0.498602D-04	0.205460D-05	0.425625D-05	0.307271D-04
71	0.102317D+00	-0.119986D+00	0.551361D-01	-0.310577D-01	-0.101254D+00
72	-0.206534D-03	-0.243492D-03	-0.203989D-04	0.223903D-04	-0.179822D-04
73	0.252039D-04	0.269063D-04	0.212612D-04	0.658309D-05	-0.125940D-04
74	-0.814107D-06	-0.211914D-04	-0.449510D-07	0.196425D-05	0.223560D-05
75	-0.187646D-04	0.254489D-04	-0.471603D-06	-0.666237D-06	-0.565166D-05
76	-0.114669D-04	-0.977181D-04	0.223995D-04	-0.189864D-04	0.967967D-05
77	0.140172D-04	-0.368876D-05	0.320560D-06	-0.405756D-06	0.361497D-05
78	-0.446161D-04	-0.281972D-04	-0.683165D-06	0.362200D-05	-0.143894D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512275D-04				
17	0.119473D-04	0.645765D-04			
18	-0.105612D-04	-0.450287D-04	0.479858D-03		



19	-0.222367D-05	-0.747602D-06	-0.594759D-06	0.117572D-04	
20	-0.131844D-06	-0.488165D-05	0.146743D-05	0.282987D-05	0.143816D-04
21	0.670190D-06	0.158898D-04	-0.263609D-04	-0.177073D-05	-0.473849D-05
22	-0.468209D-06	-0.303622D-06	0.812451D-06	0.678613D-06	0.518987D-05
23	-0.324759D-05	-0.208976D-05	0.134313D-05	0.554892D-05	0.756421D-06
24	-0.157126D-05	-0.936800D-05	0.798568D-05	0.119486D-05	0.599539D-05
25	0.774221D-05	0.276367D-04	-0.364465D-04	0.191062D-05	-0.990363D-06
26	-0.255431D-06	-0.254095D-05	-0.273565D-05	0.206714D-05	0.469115D-05
27	-0.639999D-05	-0.127486D-04	-0.233831D-06	0.193423D-05	0.591944D-05
28	0.983711D-05	0.178368D-05	-0.116575D-05	-0.390207D-05	-0.114744D-05
29	0.306675D-05	0.132387D-04	-0.983587D-05	-0.127907D-05	-0.576921D-05
30	-0.927168D-05	-0.239740D-04	0.780650D-04	0.468303D-06	0.152494D-05
31	0.538670D-06	0.410532D-05	-0.100126D-04	-0.205568D-05	-0.590798D-05
32	0.535713D-05	0.938084D-05	-0.868556D-05	0.462892D-06	-0.381519D-05
33	-0.318652D-05	-0.664213D-05	0.280026D-04	0.148301D-05	0.144900D-05
34	0.264779D-04	-0.731800D-05	-0.575093D-04	0.326725D-06	0.126494D-05
35	0.263533D-04	0.199328D-04	0.750221D-04	0.650489D-05	-0.958667D-05
36	0.440788D-04	0.454397D-05	0.136603D-03	0.325073D-05	0.135172D-04
37	0.294018D-04	0.202745D-04	-0.680895D-04	0.845456D-05	-0.157035D-04
38	0.356998D-04	0.407080D-04	0.102668D-03	0.144918D-04	-0.229256D-05
39	0.495973D-04	0.398125D-04	0.987715D-05	0.175185D-04	-0.716273D-05
40	0.352211D-04	0.467005D-04	-0.162654D-04	0.136729D-04	-0.104827D-04
41	0.283411D-04	-0.198596D-04	-0.471986D-04	-0.437271D-06	0.782353D-05
42	-0.392811D-04	0.298854D-04	-0.316887D-05	0.228755D-04	0.161983D-05
43	0.450400D-04	-0.120521D-05	-0.247664D-04	0.198310D-04	-0.731002D-05
44	0.595572D-04	0.284608D-04	-0.256752D-04	0.100855D-04	-0.917348D-06
45	0.264266D-04	-0.227820D-04	0.176334D-05	0.199488D-04	-0.746909D-06
46	0.721957D-03	-0.795525D-03	-0.475014D-02	-0.100441D-02	0.487988D-03
47	0.237638D-04	0.165466D-03	-0.380141D-03	-0.670097D-04	-0.100060D-03
48	-0.947847D-04	0.495911D-04	-0.296756D-03	-0.460912D-04	-0.104388D-03
49	0.560959D-04	0.115093D-03	-0.347800D-03	-0.434031D-04	-0.825003D-04
50	-0.778850D-04	0.574504D-05	-0.366152D-03	0.787200D-04	-0.252824D-04
51	-0.478694D-04	0.539029D-04	-0.183852D-03	-0.220564D-04	-0.471466D-04
52	-0.513191D-04	0.137431D-03	-0.328120D-03	-0.587407D-04	-0.106291D-03
53	-0.144049D-03	0.110818D-03	-0.117577D-03	-0.465080D-04	-0.896677D-04
54	-0.127799D-03	-0.192222D-03	-0.322108D-03	-0.817403D-04	0.260592D-05
55	-0.213384D-03	0.125276D-03	-0.394342D-03	-0.199642D-04	-0.739979D-05
56	-0.103088D-03	0.154530D-03	0.352424D-03	-0.947949D-04	-0.148916D-03
57	-0.127733D-03	0.575492D-04	-0.778723D-04	0.106143D-04	-0.114349D-03
58	-0.378635D-02	0.100788D-01	-0.381020D-01	-0.375593D-02	-0.398094D-02
59	0.482451D-08	-0.203506D-04	-0.106893D-04	-0.573206D-05	-0.176592D-05
60	0.161882D-04	-0.113069D-04	0.460585D-04	-0.303832D-05	-0.755532D-05
61	-0.316502D-05	-0.702916D-06	0.274484D-04	-0.292466D-06	-0.310639D-05
62	0.608302D-06	-0.311373D-05	0.151742D-04	0.523280D-05	-0.335116D-06

63	0.254640D-04	0.758165D-04	-0.139529D-03	-0.502039D-05	-0.917863D-05
64	0.330220D-04	-0.534428D-05	0.489630D-04	0.940881D-05	-0.220292D-05
65	0.330849D-05	0.515087D-04	-0.938025D-04	-0.247058D-04	-0.414846D-04
66	-0.130241D-04	-0.696293D-05	-0.911861D-04	0.227870D-04	-0.123077D-04
67	-0.208998D-04	-0.441511D-05	-0.632758D-05	-0.537819D-05	-0.274285D-04
68	0.240582D-04	0.148192D-07	-0.914662D-04	0.350400D-05	-0.252778D-05
69	0.147453D-04	0.564812D-04	-0.232614D-04	0.317788D-07	-0.109498D-04
70	0.218696D-04	-0.205725D-04	-0.101007D-04	0.158516D-06	0.619447D-05
71	-0.117647D+00	-0.275590D-01	0.326297D-01	0.481548D-01	-0.172689D-01
72	0.235477D-04	-0.218559D-04	0.196237D-03	-0.115952D-04	-0.182320D-04
73	-0.846457D-05	-0.228955D-04	0.134829D-03	0.156862D-05	0.793604D-05
74	0.230245D-05	-0.321456D-05	0.114890D-04	0.123142D-05	0.250520D-05
75	-0.119102D-05	0.577193D-05	-0.335873D-05	-0.598838D-06	-0.246636D-06
76	-0.131450D-05	-0.437888D-04	0.106499D-03	-0.338401D-05	0.125685D-04
77	-0.117548D-05	-0.934514D-06	0.730988D-05	0.174102D-05	0.502929D-05
78	-0.108459D-04	-0.281613D-05	0.253144D-04	0.151925D-05	0.356230D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.517674D-04				
22	-0.573092D-05	0.235151D-04			
23	-0.760210D-06	0.486804D-06	0.441990D-04		
24	-0.339396D-05	0.226958D-05	0.914606D-05	0.576169D-04	
25	0.200878D-04	-0.103561D-05	-0.540662D-05	-0.198164D-04	0.212681D-03
26	-0.283788D-05	0.951345D-05	0.446342D-05	0.121808D-04	-0.934205D-05
27	-0.669949D-05	0.632529D-05	0.181600D-04	0.368961D-04	-0.327522D-04
28	-0.676346D-06	-0.467271D-06	-0.101076D-04	-0.343079D-05	0.462654D-05
29	0.154562D-05	-0.423183D-06	-0.579806D-05	-0.120307D-04	0.969816D-05
30	-0.183243D-04	0.351473D-05	0.511579D-05	0.529464D-05	-0.399017D-04
31	0.612179D-05	-0.755415D-05	-0.151230D-05	-0.593306D-05	0.853875D-05
32	0.177021D-05	0.629186D-06	-0.109639D-04	-0.255242D-04	0.457943D-04
33	-0.392203D-05	0.347424D-06	0.854888D-05	0.593620D-05	-0.209163D-04
34	0.213505D-04	0.108449D-04	0.100441D-04	0.120667D-04	0.163868D-04
35	0.629477D-04	0.319420D-06	0.314804D-04	0.119925D-04	-0.280462D-04
36	0.602043D-04	0.191533D-04	0.319469D-04	-0.347715D-05	0.236246D-04
37	0.663408D-04	0.315441D-05	0.432267D-04	-0.109743D-04	0.531905D-04
38	0.103554D-03	-0.915296D-05	0.239966D-04	-0.140234D-04	0.512290D-05
39	0.895631D-04	0.127954D-04	0.446052D-04	-0.238425D-04	0.318760D-04
40	0.862336D-04	-0.181951D-05	0.930219D-04	0.138391D-04	-0.114302D-04
41	0.734304D-04	0.284008D-04	0.401692D-04	0.236169D-04	-0.407042D-05
42	0.376817D-04	0.184797D-04	0.253109D-04	-0.176271D-04	0.107003D-05
43	0.895102D-04	-0.128234D-04	0.457902D-04	-0.121023D-04	0.175054D-04

44	0.738318D-04	0.646191D-05	0.392851D-04	-0.448641D-05	0.163275D-04
45	0.581696D-04	-0.103964D-05	0.599940D-04	0.630646D-05	0.666485D-04
46	0.262996D-02	-0.165794D-03	0.960917D-03	-0.534283D-03	0.103224D-02
47	-0.175915D-03	0.240875D-04	0.126973D-03	-0.111202D-03	0.153432D-03
48	-0.554583D-04	-0.241619D-04	-0.462385D-04	-0.268614D-03	-0.109614D-03
49	-0.118688D-03	0.117420D-03	-0.505447D-04	0.852725D-04	-0.246675D-03
50	-0.110000D-03	0.921233D-04	-0.104815D-03	-0.194544D-03	0.231334D-03
51	-0.625012D-04	0.373217D-04	0.731133D-04	-0.410769D-03	0.924560D-04
52	-0.102776D-03	-0.909980D-04	-0.950774D-04	-0.386888D-03	0.295136D-03
53	0.669033D-04	-0.292935D-04	-0.729049D-04	-0.218744D-03	-0.699417D-04
54	-0.117681D-03	0.468928D-04	-0.977972D-04	-0.736266D-04	0.181914D-03
55	-0.956541D-04	0.294799D-04	0.109788D-03	0.212295D-04	-0.532797D-03
56	0.176505D-04	-0.620974D-04	0.101302D-03	-0.118341D-03	-0.451275D-04
57	-0.111783D-03	-0.104987D-03	0.116421D-03	-0.290101D-03	0.231042D-03
58	0.795079D-02	-0.206562D-02	0.141771D-02	-0.346522D-02	-0.389563D-02
59	0.115844D-04	-0.607378D-06	-0.452622D-06	0.179175D-04	0.461527D-05
60	0.157013D-04	-0.156028D-05	-0.134134D-05	0.131011D-04	0.174124D-04
61	-0.194222D-04	-0.915180D-05	-0.143994D-05	0.141012D-04	-0.471675D-05
62	-0.415721D-04	0.127784D-04	-0.114451D-05	-0.151485D-04	0.230473D-04
63	0.373748D-04	-0.447870D-05	-0.551524D-05	-0.188554D-04	0.114186D-04
64	-0.248305D-05	0.126537D-05	-0.351269D-04	0.310305D-04	-0.223529D-04
65	0.144348D-04	-0.182953D-04	0.166291D-04	-0.398603D-04	-0.121517D-03
66	-0.195872D-04	-0.290975D-04	0.565124D-04	-0.517996D-04	-0.600900D-04
67	-0.338298D-04	-0.139766D-04	-0.441499D-04	0.555127D-06	-0.495470D-04
68	-0.341378D-05	-0.776183D-05	-0.726136D-05	0.700786D-05	0.167436D-04
69	0.205092D-04	-0.742823D-05	-0.238923D-05	-0.273966D-04	0.538093D-04
70	-0.139648D-04	0.940956D-05	0.453251D-05	0.141394D-04	0.151013D-05
71	-0.789180D-01	-0.451969D-01	0.390973D-01	-0.224980D-01	-0.181943D+00
72	0.559795D-04	-0.393085D-04	0.645986D-04	0.217696D-04	0.142785D-04
73	-0.296131D-04	0.150884D-04	0.494181D-05	-0.736121D-05	0.504940D-04
74	0.446104D-05	0.136583D-05	0.238419D-05	0.768324D-05	-0.892133D-05
75	0.100227D-06	-0.541336D-05	0.361518D-05	0.182777D-05	0.594444D-05
76	-0.265828D-04	0.232142D-04	0.128016D-04	-0.408229D-05	0.237881D-05
77	-0.521343D-05	0.376194D-05	0.176782D-05	0.251384D-05	0.348943D-05
78	0.139781D-04	-0.223237D-06	0.827207D-05	-0.313543D-06	-0.177269D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	26	27	28	29	30
26	0.490699D-04				
27	0.467496D-04	0.403289D-03			
28	-0.126187D-05	-0.422680D-05	0.405006D-04		
29	-0.285003D-05	-0.116803D-04	0.749486D-05	0.502407D-04	

30	0.183865D-05	0.416682D-05	-0.505961D-05	-0.191573D-04	0.199958D-03
31	-0.919437D-05	-0.926444D-05	0.126909D-05	0.120026D-04	-0.145938D-04
32	-0.191390D-04	-0.807872D-04	0.737889D-05	0.227307D-04	-0.244971D-04
33	0.437943D-05	0.148153D-04	-0.776621D-05	-0.345670D-04	0.613266D-04
34	-0.426255D-05	0.546370D-04	0.803747D-05	-0.246936D-05	-0.217888D-05
35	-0.442421D-04	-0.845556D-04	0.168595D-04	-0.105544D-04	0.893550D-04
36	-0.270916D-04	0.387893D-04	0.227299D-04	0.478663D-05	0.610570D-04
37	-0.290836D-04	0.324162D-04	-0.480323D-05	-0.654045D-05	-0.796234D-06
38	-0.340263D-04	0.482028D-04	-0.621527D-05	0.971879D-05	0.200243D-04
39	-0.429445D-04	-0.274690D-04	-0.682308D-05	0.114965D-04	0.639656D-04
40	-0.284521D-04	0.284497D-05	-0.465358D-04	-0.789476D-05	0.768742D-04
41	-0.178807D-04	0.316263D-04	-0.206358D-04	0.351713D-05	0.232936D-04
42	0.256355D-05	0.468894D-04	-0.253788D-04	0.296892D-05	0.372136D-04
43	-0.409858D-04	-0.192372D-04	-0.158642D-04	-0.202050D-04	0.102342D-03
44	-0.409022D-04	-0.574978D-04	0.788899D-05	-0.767819D-05	0.153211D-04
45	-0.306558D-04	0.586457D-04	-0.212454D-04	0.211437D-04	0.648758D-04
46	-0.186411D-02	-0.106789D-02	-0.175558D-03	-0.155483D-03	0.946911D-03
47	-0.680507D-04	0.150530D-03	-0.120242D-03	0.306374D-04	-0.197894D-04
48	-0.867332D-04	-0.281489D-03	-0.484626D-04	0.235902D-03	-0.224026D-03
49	0.568313D-04	0.139406D-03	0.108422D-04	0.679977D-04	-0.325963D-03
50	0.191012D-03	-0.121616D-03	0.483065D-04	0.313960D-03	-0.295443D-03
51	-0.744252D-05	-0.284006D-03	-0.364782D-04	0.110134D-03	-0.166678D-03
52	-0.333464D-04	-0.155700D-04	0.870828D-04	0.357689D-03	-0.553624D-03
53	-0.125021D-03	-0.213856D-03	-0.409330D-04	0.165602D-03	0.265433D-03
54	0.167635D-03	0.303616D-03	-0.149552D-03	-0.974772D-04	-0.961235D-04
55	-0.861295D-04	0.301008D-03	-0.155510D-03	0.153917D-03	-0.321278D-03
56	0.488578D-04	0.589516D-04	-0.918179D-04	0.106743D-03	-0.538447D-03
57	-0.566774D-04	-0.285569D-03	-0.223900D-03	0.774238D-04	-0.124219D-03
58	0.180655D-02	0.142174D-01	-0.617661D-03	0.371876D-02	-0.228555D-01
59	0.506780D-05	-0.378996D-04	0.629941D-05	-0.156454D-05	-0.333506D-04
60	-0.803981D-05	0.589564D-04	0.759830D-05	0.414346D-06	0.132106D-04
61	0.517109D-05	0.753481D-04	0.192710D-04	-0.313584D-04	-0.395119D-04
62	-0.254462D-04	-0.910800D-04	-0.250345D-04	0.361975D-04	0.530098D-04
63	0.281119D-04	-0.374087D-04	0.437959D-05	0.203226D-04	-0.785405D-04
64	-0.148922D-05	-0.199759D-04	0.150651D-05	0.438675D-05	0.557396D-04
65	-0.474890D-05	0.835294D-04	0.203061D-04	-0.418465D-05	0.119376D-03
66	-0.145288D-04	0.187715D-03	-0.170159D-04	-0.157047D-04	0.127984D-04
67	-0.309596D-04	0.240601D-04	0.195056D-04	0.306299D-04	-0.431014D-04
68	0.298062D-05	-0.246660D-04	0.815694D-05	-0.655396D-05	-0.366232D-04
69	-0.240040D-06	0.278384D-04	0.388419D-05	-0.275718D-04	-0.343404D-04
70	-0.595585D-05	-0.306783D-04	0.198409D-05	-0.116856D-04	-0.237323D-04
71	-0.107669D+00	-0.426449D-01	-0.117197D+00	-0.520007D-01	0.440175D-01
72	-0.607176D-04	-0.774255D-04	-0.114483D-04	-0.522418D-04	0.123081D-03
73	-0.453459D-05	0.501782D-04	-0.103101D-04	0.180466D-04	0.182865D-04

74	0.333070D-05	0.109025D-04	0.257447D-05	-0.280527D-05	0.120101D-04
75	-0.496037D-05	-0.362918D-05	-0.577933D-05	-0.103040D-04	0.447160D-06
76	-0.959382D-05	0.125883D-03	-0.924908D-05	-0.381986D-04	0.331370D-04
77	0.110806D-05	-0.340048D-05	0.792419D-06	-0.140795D-05	0.208786D-05
78	-0.585531D-05	0.110134D-04	-0.191641D-06	0.695397D-05	-0.120038D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391583D-04				
32	0.200851D-04	0.190383D-03			
33	-0.284334D-04	-0.658429D-04	0.287568D-03		
34	-0.230718D-05	-0.862452D-05	-0.254808D-04	0.525991D-02	
35	0.183229D-04	-0.187171D-04	0.153703D-04	0.289274D-02	0.199576D-01
36	0.508909D-05	-0.129722D-04	0.266561D-04	0.370080D-02	0.144550D-01
37	0.330305D-04	0.855228D-05	0.169032D-04	0.276141D-02	0.915916D-02
38	0.569658D-05	-0.363465D-04	0.336309D-04	0.341572D-02	0.129651D-01
39	0.150468D-04	0.200998D-04	0.731722D-04	0.367315D-02	0.136852D-01
40	0.844802D-05	-0.293315D-04	0.231222D-04	0.388602D-02	0.155719D-01
41	0.549147D-05	0.153029D-04	0.113616D-04	0.268073D-02	0.104283D-01
42	-0.236241D-04	0.363239D-04	-0.765940D-05	0.168956D-02	0.742255D-02
43	0.167885D-04	-0.211213D-04	0.401194D-04	0.384959D-02	0.141664D-01
44	0.755437D-05	0.222245D-04	0.419497D-04	0.353203D-02	0.136878D-01
45	0.227281D-04	-0.274580D-05	0.324203D-04	0.315770D-02	0.119295D-01
46	0.117884D-02	-0.154501D-02	-0.475210D-03	0.413957D-01	0.229314D+00
47	0.416105D-04	-0.174965D-03	0.143709D-03	0.179811D-02	0.147616D-02
48	0.182768D-03	-0.233181D-03	-0.214379D-03	0.756167D-03	0.286466D-02
49	-0.334948D-05	-0.752334D-04	-0.545783D-03	-0.996932D-03	-0.102867D-02
50	0.133372D-03	-0.298390D-03	-0.106756D-02	0.222392D-02	0.200150D-02
51	0.180398D-03	-0.722713D-04	-0.401964D-04	0.481736D-03	0.891982D-03
52	0.182746D-03	-0.240924D-03	-0.450068D-03	0.232196D-02	0.995599D-03
53	0.251536D-03	-0.397240D-03	-0.187504D-03	0.145080D-02	0.629436D-02
54	0.433765D-04	-0.429572D-03	0.218867D-04	0.784781D-03	-0.517864D-02
55	0.185894D-03	-0.198966D-03	-0.439405D-03	0.186637D-02	-0.366114D-02
56	0.144623D-03	-0.270468D-03	0.187176D-03	0.255624D-02	0.138047D-02
57	0.289488D-03	0.165835D-03	-0.318891D-03	0.899367D-03	-0.126353D-02
58	0.752610D-02	0.563057D-02	-0.314330D-01	0.102550D-01	-0.617419D-02
59	0.110299D-04	-0.282952D-04	-0.299501D-04	-0.125205D-03	-0.123657D-03
60	0.237699D-04	0.383652D-04	0.803777D-05	0.893858D-05	-0.411110D-03
61	0.752746D-05	0.756188D-07	0.504474D-04	-0.232077D-03	-0.287781D-03
62	-0.210371D-04	0.580140D-04	0.815981D-04	-0.557892D-04	-0.577633D-03
63	0.160551D-04	0.263868D-04	-0.162553D-04	0.258771D-03	0.520036D-04
64	-0.425693D-05	-0.468937D-05	0.435563D-04	-0.485645D-04	0.432701D-03

65	-0.212521D-04	0.431026D-04	0.352576D-04	0.684620D-03	0.645234D-03
66	-0.293103D-04	-0.156816D-04	-0.666026D-04	0.206641D-04	-0.139685D-03
67	0.106871D-04	-0.215518D-04	0.102971D-04	-0.511156D-03	-0.622547D-04
68	-0.428763D-05	-0.519649D-04	0.123574D-04	0.453714D-03	0.315372D-04
69	-0.100808D-04	0.980250D-06	0.242246D-04	-0.164900D-03	-0.195902D-03
70	-0.107765D-04	0.223127D-04	-0.566403D-04	-0.447160D-04	0.109440D-03
71	-0.449490D-01	0.161286D+00	-0.187171D+00	0.705366D-01	0.225710D+01
72	-0.320979D-04	0.539365D-05	0.155219D-03	-0.382433D-03	-0.156202D-03
73	-0.191757D-04	0.160458D-04	0.786761D-05	0.107098D-03	0.719171D-03
74	-0.429811D-05	0.196411D-05	0.648385D-05	-0.727411D-04	-0.289734D-04
75	0.476739D-05	-0.174112D-05	0.173551D-04	0.380296D-04	-0.339612D-05
76	-0.584533D-04	-0.867849D-05	-0.118578D-04	-0.119014D-03	0.701091D-03
77	-0.157869D-05	0.216663D-05	0.308320D-05	-0.246241D-04	0.340077D-04
78	0.486802D-05	-0.631429D-05	-0.863144D-05	0.354497D-03	0.178391D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.230061D-01				
37	0.113677D-01	0.239594D-01			
38	0.159084D-01	0.105607D-01	0.223033D-01		
39	0.164030D-01	0.107113D-01	0.144017D-01	0.230020D-01	
40	0.189083D-01	0.125697D-01	0.174944D-01	0.177797D-01	0.354230D-01
41	0.132455D-01	0.845356D-02	0.116890D-01	0.121017D-01	0.144046D-01
42	0.914441D-02	0.626614D-02	0.801406D-02	0.803644D-02	0.972499D-02
43	0.179747D-01	0.116020D-01	0.157564D-01	0.167024D-01	0.191401D-01
44	0.166391D-01	0.111007D-01	0.149518D-01	0.155013D-01	0.172695D-01
45	0.152600D-01	0.101385D-01	0.131364D-01	0.141265D-01	0.158857D-01
46	0.305171D+00	0.223837D+00	0.263909D+00	0.272113D+00	0.305445D+00
47	0.259478D-02	0.415707D-02	-0.222440D-02	0.387462D-02	0.644542D-03
48	0.218349D-02	0.921740D-04	-0.566817D-03	0.173258D-03	0.173366D-02
49	-0.326372D-02	-0.724436D-02	-0.261039D-02	-0.517277D-02	-0.498158D-03
50	0.966319D-03	0.109720D-02	-0.572365D-02	-0.114894D-02	-0.302289D-03
51	-0.140101D-02	-0.557720D-03	-0.324981D-02	-0.144934D-02	-0.155112D-02
52	-0.163919D-02	0.230220D-02	-0.306359D-02	-0.386327D-02	-0.341092D-02
53	0.295826D-02	0.283522D-02	0.848447D-03	0.366201D-02	0.159021D-02
54	-0.275020D-02	0.141176D-02	-0.440435D-02	-0.166595D-02	-0.285954D-02
55	-0.204229D-02	0.230576D-02	-0.397351D-02	-0.567156D-02	-0.535163D-02
56	0.203720D-02	0.369595D-02	-0.148413D-02	-0.156618D-02	-0.393215D-03
57	-0.137501D-02	-0.588430D-03	-0.319604D-02	-0.425793D-02	-0.270453D-02
58	-0.755378D-01	0.606469D-01	-0.137084D+00	-0.152599D+00	-0.322157D+00
59	-0.975659D-04	0.897198D-04	-0.681604D-06	0.155026D-03	0.147434D-03
60	-0.798213D-04	-0.726086D-04	0.723937D-04	-0.196027D-03	0.308105D-03

61	-0.732822D-04	-0.280977D-03	-0.484484D-03	-0.324974D-03	-0.289799D-03
62	-0.101751D-02	0.246459D-03	-0.378003D-03	-0.821348D-03	0.339991D-03
63	-0.236576D-03	0.634818D-03	0.100198D-02	-0.133960D-03	-0.545292D-03
64	0.395635D-03	0.316449D-03	0.212987D-03	0.801052D-03	0.808554D-03
65	0.155950D-02	0.878756D-03	0.793224D-03	0.165787D-02	0.107724D-02
66	0.643494D-04	0.141371D-03	0.277354D-03	0.353652D-03	0.102991D-02
67	0.336503D-03	0.310397D-03	0.254989D-03	0.572770D-03	-0.363245D-03
68	0.143339D-03	-0.826814D-03	-0.340800D-03	0.382281D-04	0.148289D-03
69	-0.358498D-03	-0.167405D-03	0.107598D-03	0.126791D-03	0.354881D-03
70	-0.179886D-03	-0.810374D-06	-0.148618D-03	-0.128658D-03	-0.702766D-03
71	0.740080D+00	0.131349D+01	0.504336D+00	0.186443D+01	0.523175D+00
72	-0.225363D-04	0.764466D-03	0.113559D-02	0.451790D-03	0.876723D-03
73	0.379438D-03	0.123201D-03	0.170267D-03	0.719342D-04	0.481369D-03
74	-0.345376D-04	-0.139773D-03	0.595223D-04	-0.512308D-04	-0.149313D-04
75	0.239942D-04	0.559414D-04	0.192274D-03	0.605661D-04	-0.585737D-04
76	0.459864D-03	-0.707010D-03	-0.496713D-04	0.207598D-03	0.366462D-03
77	0.930836D-05	-0.222189D-05	-0.101297D-04	0.319183D-05	0.486287D-04
78	0.197951D-02	0.110356D-02	0.239446D-02	0.190400D-02	0.212054D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.239168D-01				
42	0.611970D-02	0.187452D-01			
43	0.132009D-01	0.903126D-02	0.255864D-01		
44	0.123333D-01	0.811057D-02	0.167678D-01	0.228670D-01	
45	0.109500D-01	0.797917D-02	0.152623D-01	0.141787D-01	0.207858D-01
46	0.237364D+00	0.151466D+00	0.296386D+00	0.268106D+00	0.229416D+00
47	-0.121091D-02	-0.113667D-02	0.185139D-02	-0.272506D-03	0.263951D-02
48	-0.299747D-02	-0.105265D-02	0.364128D-02	0.483038D-03	0.898770D-03
49	-0.305404D-02	-0.193962D-02	-0.304469D-02	-0.369043D-02	-0.240425D-02
50	-0.252980D-02	0.154515D-02	0.284549D-02	-0.100254D-02	-0.545369D-03
51	-0.510498D-02	0.106857D-02	0.142827D-02	-0.139288D-02	-0.542679D-03
52	-0.473793D-02	0.104612D-02	-0.797608D-03	-0.533150D-02	-0.758846D-03
53	-0.436557D-02	0.665403D-03	0.226091D-02	0.162232D-02	-0.297549D-04
54	-0.163644D-02	-0.586714D-03	-0.132635D-02	-0.266671D-02	-0.291692D-02
55	-0.523225D-02	0.628046D-03	-0.399205D-02	-0.600611D-02	-0.142440D-02
56	-0.912834D-03	0.557145D-03	0.286563D-02	0.300572D-03	0.364455D-03
57	-0.240040D-02	-0.269279D-02	-0.790442D-03	-0.127965D-02	-0.280946D-02
58	-0.219893D+00	-0.938622D-01	-0.794577D-01	-0.130354D+00	-0.104807D+00
59	-0.245358D-04	0.872124D-04	-0.133923D-03	-0.291992D-03	0.364718D-04
60	-0.592537D-04	0.100212D-04	-0.225929D-03	-0.138418D-03	-0.939657D-04
61	0.339366D-03	-0.166663D-03	-0.212444D-03	-0.346880D-03	0.625623D-04

62	-0.945953D-03	0.199353D-03	-0.945455D-03	-0.489051D-03	-0.523649D-03
63	-0.246855D-03	0.609236D-03	0.630812D-03	0.260862D-03	0.213835D-03
64	0.600766D-03	0.196988D-03	0.731133D-03	0.403575D-03	0.556869D-03
65	0.947859D-03	0.623567D-03	0.874330D-03	0.157593D-02	0.687072D-03
66	0.556876D-03	0.887616D-03	0.107501D-02	0.260962D-03	0.510654D-03
67	0.309333D-03	-0.896429D-03	-0.376070D-04	-0.158419D-03	0.212075D-03
68	-0.385336D-03	0.402259D-04	0.395664D-03	0.143635D-03	0.149624D-03
69	-0.157613D-03	0.567035D-03	-0.108325D-03	-0.217400D-03	-0.159694D-03
70	-0.314241D-03	-0.194500D-03	-0.335902D-03	-0.494602D-03	-0.357105D-03
71	0.613759D+00	0.446076D+00	0.135316D+01	0.172509D+01	0.927015D+00
72	-0.397891D-03	0.492131D-05	-0.371877D-03	0.212278D-03	-0.256084D-03
73	0.175600D-03	-0.332218D-04	0.104706D-03	0.348119D-03	0.699848D-04
74	0.428270D-04	-0.856990D-04	-0.422128D-04	0.300798D-05	0.353600D-04
75	-0.180882D-04	-0.135399D-04	0.148508D-04	0.274329D-04	-0.280830D-04
76	0.142351D-03	-0.335369D-04	-0.190725D-03	0.165283D-03	0.922575D-04
77	0.299809D-04	-0.554836D-04	0.205269D-04	-0.641095D-05	0.247964D-04
78	0.147894D-02	0.831159D-03	0.196477D-02	0.189778D-02	0.159857D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.308396D+02				
47	-0.210505D+00	0.599998D+00			
48	-0.118725D+00	0.445773D+00	0.680159D+00		
49	-0.233978D+00	0.300974D+00	0.333476D+00	0.709452D+00	
50	0.763613D-02	0.376451D+00	0.464494D+00	0.323916D+00	0.927156D+00
51	-0.117962D+00	0.396082D+00	0.476431D+00	0.317117D+00	0.413608D+00
52	-0.178618D+00	0.479577D+00	0.559306D+00	0.352268D+00	0.481544D+00
53	-0.185908D-01	0.318410D+00	0.389727D+00	0.244396D+00	0.328358D+00
54	-0.882826D-01	0.216984D+00	0.277452D+00	0.149275D+00	0.248689D+00
55	-0.196584D+00	0.426841D+00	0.510132D+00	0.346439D+00	0.448433D+00
56	-0.222067D+00	0.414831D+00	0.485558D+00	0.305775D+00	0.418671D+00
57	-0.153223D+00	0.341265D+00	0.430754D+00	0.284377D+00	0.376220D+00
58	-0.132051D+02	0.925166D+01	0.106801D+02	0.747762D+01	0.934315D+01
59	0.813548D-03	-0.100479D-02	-0.173570D-02	-0.154939D-02	-0.320628D-02
60	0.144696D-01	-0.600019D-02	-0.331067D-03	0.263739D-03	-0.363883D-02
61	-0.154168D-01	-0.679722D-03	-0.641958D-02	0.774657D-03	-0.157971D-02
62	-0.211241D-03	-0.387579D-02	-0.348956D-02	-0.129042D-01	-0.830878D-02
63	-0.167181D-02	-0.491106D-03	-0.177346D-02	-0.845806D-03	-0.761622D-02
64	-0.840060D-02	0.226922D-02	0.369676D-02	-0.390537D-02	0.212377D-03
65	0.751198D-02	-0.479064D-02	-0.287553D-02	-0.342244D-02	0.324591D-02
66	0.843726D-02	0.267668D-02	-0.727948D-03	-0.241159D-02	-0.566371D-02
67	0.707920D-02	0.610371D-02	-0.920636D-03	-0.787195D-03	0.174446D-02



68	-0.882716D-02	0.857596D-03	0.422408D-02	0.579333D-03	-0.279093D-03
69	-0.755340D-02	-0.283257D-02	-0.316207D-02	-0.219380D-02	-0.135880D-02
70	-0.111313D-01	0.177678D-02	0.564302D-02	0.183686D-02	0.390060D-02
71	-0.534809D+02	-0.383230D+00	-0.127198D+00	-0.455154D+01	0.440796D+01
72	0.713455D-01	-0.448292D-01	-0.505269D-01	-0.377078D-01	-0.103889D+00
73	0.177280D-01	-0.453321D-02	-0.597668D-02	-0.154849D-02	-0.416919D-02
74	0.539479D-02	-0.856622D-02	-0.995133D-02	-0.666593D-02	-0.905590D-02
75	-0.464317D-02	0.498524D-03	0.242751D-03	-0.136094D-03	-0.156027D-01
76	-0.167877D-02	-0.354748D-02	-0.318376D-02	-0.258628D-02	-0.122145D-02
77	-0.106679D-02	-0.210988D-03	-0.371308D-03	-0.303233D-03	-0.470603D-03
78	0.300955D-01	-0.732222D-03	0.121156D-03	-0.848048D-03	0.571912D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.665977D+00				
52	0.489382D+00	0.992750D+00			
53	0.352613D+00	0.401095D+00	0.667457D+00		
54	0.270421D+00	0.292899D+00	0.219206D+00	0.537367D+00	
55	0.469388D+00	0.538606D+00	0.367491D+00	0.274699D+00	0.706045D+00
56	0.434769D+00	0.497053D+00	0.353048D+00	0.242504D+00	0.479645D+00
57	0.407755D+00	0.436522D+00	0.302728D+00	0.222125D+00	0.423503D+00
58	0.101335D+02	0.111011D+02	0.909043D+01	0.613900D+01	0.101654D+02
59	-0.225797D-02	-0.128708D-02	-0.196189D-02	-0.180718D-02	-0.264643D-02
60	0.790752D-03	-0.271419D-02	0.113525D-02	0.316685D-02	-0.555499D-04
61	0.124788D-02	-0.995298D-03	-0.290909D-02	-0.258776D-02	0.242720D-02
62	-0.644769D-02	-0.512611D-02	-0.216418D-02	0.925327D-03	-0.784106D-02
63	-0.467342D-02	-0.124544D-02	-0.201217D-02	-0.189982D-02	-0.394931D-02
64	-0.508973D-02	0.118407D-02	0.816947D-03	0.951088D-03	-0.183765D-04
65	-0.127206D-02	-0.132331D-01	-0.363572D-02	-0.260872D-02	0.234238D-02
66	0.251234D-03	0.441771D-02	-0.114425D-01	-0.407228D-02	0.161917D-03
67	-0.520186D-03	-0.358942D-02	0.391353D-03	-0.844948D-02	0.161318D-02
68	0.677521D-03	0.294340D-02	0.249796D-02	0.283469D-02	-0.808761D-02
69	0.210553D-02	-0.147359D-02	-0.308281D-02	-0.245452D-03	-0.221831D-02
70	-0.101024D-02	0.470191D-02	0.334422D-02	0.321521D-02	-0.137300D-02
71	-0.106551D+02	-0.222021D+00	0.647152D+01	-0.792247D+01	-0.110788D+01
72	-0.464242D-01	-0.474543D-01	-0.316973D-01	-0.293517D-01	-0.523261D-01
73	-0.357926D-02	-0.653798D-02	-0.506635D-02	-0.448868D-02	-0.499589D-02
74	-0.908256D-02	-0.105311D-01	-0.700247D-02	-0.540032D-02	-0.971570D-02
75	0.851903D-03	-0.142369D-04	0.696162D-03	-0.279030D-03	0.177196D-03
76	-0.427680D-03	-0.339792D-02	-0.118286D-04	-0.448835D-02	-0.910690D-03
77	-0.988312D-04	-0.430898D-03	-0.422866D-03	-0.557535D-03	-0.278456D-03
78	-0.588879D-03	-0.178504D-03	0.185961D-03	-0.827816D-03	-0.996463D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	0.663612D+00				
57	0.395615D+00	0.593285D+00			
58	0.101443D+02	0.833405D+01	0.100649D+04		
59	-0.189798D-02	-0.308548D-02	-0.256343D-01	0.272710D-02	
60	-0.304935D-02	0.156183D-03	0.754412D-01	-0.134604D-03	0.101180D-01
61	-0.379863D-03	0.267571D-02	-0.136945D+00	-0.810430D-04	0.154240D-03
62	-0.625767D-02	-0.426183D-02	-0.417016D+00	0.107571D-04	0.615074D-04
63	-0.344773D-02	-0.397551D-02	0.135195D+00	0.216073D-03	-0.179308D-04
64	0.431378D-02	-0.323429D-02	0.203808D-01	0.464876D-03	0.779831D-04
65	0.336081D-02	0.497728D-05	-0.155187D+00	-0.596931D-03	-0.506716D-04
66	-0.852500D-05	-0.189841D-02	-0.181318D+00	-0.273443D-03	-0.424506D-03
67	0.151145D-02	0.280017D-02	-0.579967D-01	-0.204759D-03	-0.336238D-03
68	-0.997898D-03	-0.449478D-02	0.211760D+00	0.105541D-03	-0.358089D-03
69	-0.796720D-02	-0.635448D-03	0.127997D+00	0.975479D-04	0.414006D-03
70	0.750304D-03	-0.291938D-02	0.128955D+00	0.265313D-03	-0.708316D-03
71	0.156420D+01	-0.570076D+01	-0.245581D+03	-0.447536D+00	0.168181D+01
72	-0.481715D-01	-0.387526D-01	-0.124382D+01	0.129508D-03	0.541914D-04
73	-0.537181D-02	-0.147713D-02	-0.195282D+00	-0.775672D-04	0.108459D-03
74	-0.913110D-02	-0.779920D-02	-0.208356D+00	0.619051D-04	0.244701D-04
75	0.653278D-03	0.726811D-03	0.268414D-02	0.333827D-04	0.610853D-05
76	-0.107073D-02	-0.970181D-03	-0.220681D+00	-0.196712D-03	0.270516D-04
77	-0.451922D-03	-0.204196D-03	-0.159369D-01	-0.105488D-04	0.189586D-04
78	-0.107917D-02	-0.229231D-03	-0.881522D-01	-0.394913D-04	0.174097D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	0.608101D-02				
62	-0.932403D-03	0.338254D-01			
63	-0.829083D-04	0.815459D-03	0.172338D-01		
64	-0.783889D-03	0.854539D-03	-0.159570D-03	0.982806D-02	
65	0.107319D-02	0.794982D-03	-0.123312D-02	-0.205368D-03	0.342293D-01
66	0.806050D-03	-0.508598D-03	0.137685D-02	-0.104452D-02	0.689153D-03
67	0.948296D-04	0.122544D-03	-0.745777D-03	-0.681301D-04	0.118672D-02
68	-0.100205D-02	-0.315762D-04	-0.212533D-03	0.131305D-03	-0.103478D-02
69	0.409560D-03	-0.324648D-03	0.125893D-03	-0.707139D-03	-0.703795D-03
70	-0.980215D-03	0.186246D-03	0.505521D-03	0.462185D-03	-0.125673D-02
71	-0.941987D+00	-0.337067D+00	-0.134553D+01	0.104001D+01	0.174138D+01

72	-0.738568D-03	0.136853D-02	-0.111350D-03	0.652210D-04	-0.162970D-02
73	0.421695D-03	-0.606472D-03	-0.326394D-02	-0.343373D-03	0.165325D-04
74	-0.197476D-05	0.846859D-04	-0.123279D-05	-0.588520D-04	0.672610D-04
75	-0.716559D-04	0.117539D-03	0.128907D-03	-0.100708D-03	-0.142923D-03
76	0.222006D-03	-0.110960D-02	-0.101139D-01	-0.228180D-03	0.112449D-02
77	-0.161936D-04	0.479037D-04	-0.334853D-04	-0.226772D-04	0.853629D-05
78	-0.995048D-04	0.352475D-03	-0.648001D-04	0.694134D-04	-0.207851D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.263609D-01				
67	0.184996D-02	0.241011D-01			
68	-0.761932D-03	-0.215611D-03	0.922750D-02		
69	0.134012D-03	-0.194480D-03	-0.465326D-04	0.929036D-02	
70	-0.541567D-03	-0.620360D-03	0.133533D-02	-0.617986D-03	0.992161D-02
71	0.214543D+01	0.114045D+01	-0.136249D+01	-0.958272D+00	0.634813D+00
72	0.112793D-02	-0.880521D-03	0.109658D-02	0.505677D-04	0.719580D-03
73	0.838046D-04	0.790281D-03	-0.332358D-03	0.178252D-03	-0.159894D-03
74	-0.298425D-04	-0.571889D-04	-0.333564D-04	-0.658226D-05	-0.494988D-04
75	0.106260D-03	-0.205128D-04	0.105628D-03	0.216968D-04	-0.103474D-03
76	-0.375967D-03	0.791095D-03	0.116984D-03	-0.209897D-03	-0.990422D-04
77	-0.533557D-04	0.217936D-04	-0.141806D-04	0.267825D-04	0.349662D-04
78	0.734553D-05	-0.132021D-03	-0.574993D-04	0.261900D-05	0.638997D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.966636D+05				
72	-0.129182D+01	0.521780D-01			
73	0.716983D-02	-0.304566D-03	0.124260D-01		
74	-0.208165D+00	0.103789D-02	0.736510D-04	0.335560D-03	
75	-0.164720D-01	0.220656D-02	0.656498D-04	0.396424D-05	0.993173D-03
76	0.136302D+01	0.475278D-03	0.357717D-02	0.131565D-03	-0.113489D-03
77	0.853804D-01	-0.132158D-03	0.191366D-03	0.876049D-05	0.538012D-05
78	0.169218D+00	0.508574D-03	-0.220572D-03	0.224775D-04	0.100910D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	0.153021D-01		

77 0.546681D-04 0.957628D-04  
78 0.114875D-03 0.538295D-04 0.161346D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.194	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.067	-0.164	0.182	-0.177	-0.227
7	0.015	0.002	0.004	-0.014	-0.032
8	0.025	-0.014	-0.010	-0.017	-0.051
9	0.020	0.035	0.011	0.037	0.006
10	0.000	0.036	0.026	0.036	0.019
11	0.022	0.013	0.001	0.003	0.044
12	-0.020	-0.012	-0.010	-0.036	0.040
13	0.015	0.021	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.007	0.010	-0.040	0.021	0.020
16	-0.040	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.000	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.015	0.027	0.009
23	-0.009	0.013	-0.020	0.009	-0.028
24	0.012	-0.014	0.022	-0.033	0.007
25	-0.043	0.049	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.016	0.002	0.002	0.001
29	-0.042	-0.023	0.028	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.040	-0.023	0.017	-0.010	0.032
35	-0.028	0.003	0.021	0.012	0.018
36	0.007	0.012	0.017	0.033	0.042
37	0.012	-0.028	0.017	-0.005	0.025

38	-0.011	0.003	0.032	0.047	-0.001
39	-0.014	0.002	-0.026	0.021	0.022
40	0.033	0.006	0.010	0.029	0.013
41	-0.019	0.033	-0.005	0.025	0.019
42	0.046	-0.030	0.055	0.000	0.009
43	0.028	0.021	0.015	0.038	0.048
44	-0.018	0.006	0.002	0.028	0.045
45	0.005	0.004	-0.002	0.014	0.042
46	-0.001	0.017	0.004	0.041	0.029
47	0.022	0.019	-0.015	0.002	0.019
48	0.033	0.034	-0.010	0.030	-0.003
49	0.003	0.027	0.007	-0.001	0.030
50	0.002	-0.001	-0.020	0.004	0.007
51	0.015	0.036	-0.044	0.049	0.012
52	0.033	0.014	-0.001	-0.009	-0.010
53	0.003	0.018	-0.028	-0.002	-0.021
54	0.044	0.059	-0.042	0.015	0.016
55	0.045	0.010	-0.010	-0.015	0.008
56	0.073	0.057	-0.020	0.030	0.009
57	0.028	0.051	-0.038	-0.001	0.009
58	-0.003	0.027	-0.036	0.044	0.020
59	-0.019	0.019	0.049	0.006	-0.055
60	0.034	0.043	-0.049	0.018	0.042
61	0.017	-0.001	-0.024	-0.039	-0.021
62	0.007	0.054	0.000	0.007	-0.005
63	0.016	-0.021	0.034	-0.010	0.000
64	0.084	0.035	0.016	-0.015	-0.001
65	0.002	-0.006	0.007	0.009	0.020
66	0.063	-0.014	0.001	0.005	-0.041
67	-0.009	-0.023	-0.029	-0.006	-0.033
68	-0.007	0.014	0.014	-0.004	-0.015
69	-0.014	-0.007	-0.023	-0.008	0.027
70	-0.035	-0.029	0.051	-0.022	-0.013
71	-0.001	0.031	-0.020	0.048	0.027
72	0.026	0.023	0.008	0.009	-0.027
73	0.022	0.067	0.001	0.008	0.003
74	-0.015	-0.026	0.005	0.019	0.004
75	0.012	0.049	0.012	0.010	-0.010
76	0.022	0.002	-0.020	0.009	0.007
77	-0.022	-0.028	0.030	0.013	0.041
78	0.010	-0.009	-0.012	0.005	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.024	1.000			
8	-0.043	-0.116	1.000		
9	-0.044	0.022	0.118	1.000	
10	0.008	-0.039	-0.144	0.013	1.000
11	-0.035	-0.004	-0.139	0.023	-0.171
12	0.035	0.018	0.149	-0.150	0.060
13	0.000	0.028	0.009	-0.021	-0.002
14	0.000	0.007	-0.032	-0.044	0.059
15	-0.028	-0.028	-0.014	-0.027	0.034
16	-0.017	-0.021	0.025	0.009	0.006
17	-0.011	0.012	-0.015	-0.004	0.011
18	-0.013	-0.014	-0.021	-0.041	-0.019
19	0.019	-0.038	0.019	0.008	0.026
20	0.012	0.003	-0.010	0.002	0.036
21	-0.015	0.020	-0.007	0.021	-0.034
22	-0.046	0.016	0.003	-0.007	0.004
23	-0.014	0.003	0.063	0.014	0.034
24	0.022	-0.007	-0.007	-0.032	0.026
25	0.009	-0.031	-0.013	0.006	0.022
26	-0.036	0.008	-0.018	0.002	-0.010
27	0.004	-0.015	-0.011	0.015	0.033
28	0.013	0.052	-0.037	-0.013	-0.019
29	0.035	0.035	-0.053	0.005	0.023
30	-0.006	-0.027	-0.014	-0.011	-0.025
31	0.038	0.007	0.001	0.004	0.012
32	0.011	0.038	0.002	0.038	-0.002
33	-0.006	0.007	-0.017	0.011	-0.010
34	0.020	-0.012	0.012	-0.043	-0.021
35	0.031	-0.021	0.039	0.010	-0.003
36	0.019	-0.011	0.041	0.055	0.009
37	0.044	-0.056	0.038	0.022	-0.001
38	0.025	0.038	0.000	0.043	-0.010
39	0.047	-0.004	0.023	0.043	-0.008
40	0.014	-0.027	0.049	0.009	0.002
41	0.001	-0.045	0.028	0.035	-0.005
42	-0.032	-0.018	0.009	0.014	0.008
43	0.005	-0.023	0.058	0.035	-0.002
44	0.018	-0.014	0.036	0.036	-0.007
45	0.013	-0.052	0.048	0.040	-0.015
46	-0.003	-0.009	0.020	0.016	0.035
47	0.006	-0.029	0.043	-0.002	-0.002

48	0.008	-0.030	0.035	-0.016	0.045
49	-0.008	0.030	0.038	-0.023	-0.001
50	-0.004	-0.001	0.040	0.019	0.025
51	0.011	-0.040	0.029	0.000	0.007
52	0.008	0.008	0.026	-0.019	0.008
53	0.003	-0.011	0.019	-0.041	0.009
54	0.001	0.020	-0.008	-0.036	0.050
55	0.008	-0.019	0.014	0.013	0.028
56	-0.001	-0.019	0.042	0.004	-0.008
57	0.020	-0.039	0.027	-0.004	0.043
58	0.008	-0.045	0.038	-0.001	0.005
59	0.040	0.010	0.023	0.028	0.020
60	-0.024	0.027	0.006	-0.039	0.000
61	0.051	0.006	-0.001	0.031	-0.006
62	-0.014	0.022	-0.013	0.016	0.004
63	-0.002	0.006	-0.024	0.005	0.033
64	0.028	0.033	0.021	0.007	-0.013
65	-0.006	-0.018	-0.014	0.024	0.008
66	0.020	-0.003	0.035	-0.026	-0.036
67	0.005	-0.027	0.011	-0.011	-0.027
68	0.043	-0.029	0.015	-0.047	0.003
69	-0.012	-0.014	0.003	0.042	-0.020
70	-0.015	0.057	-0.005	0.025	-0.006
71	-0.029	0.003	0.009	-0.025	-0.016
72	0.020	0.021	-0.051	-0.070	-0.015
73	0.010	0.020	0.018	0.034	-0.002
74	-0.026	0.019	-0.032	0.016	-0.023
75	-0.008	-0.041	0.005	-0.055	-0.008
76	0.008	0.022	0.015	0.014	-0.037
77	0.013	-0.020	-0.046	0.053	0.016
78	0.009	0.378	0.031	0.008	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	-0.026	0.006	1.000		
14	-0.005	0.018	0.242	1.000	
15	0.004	-0.005	0.016	0.273	1.000
16	0.001	0.032	-0.129	-0.192	-0.068
17	-0.011	0.016	-0.013	-0.110	-0.261
18	0.014	0.003	0.006	0.014	0.065

19	-0.016	-0.004	0.064	0.243	0.060
20	-0.016	-0.027	-0.006	0.076	0.310
21	-0.007	-0.011	-0.021	-0.032	-0.022
22	0.033	0.033	0.019	-0.004	0.042
23	-0.054	-0.009	0.141	0.191	0.100
24	-0.015	0.013	0.023	0.133	0.231
25	0.020	-0.035	-0.029	-0.021	-0.042
26	-0.013	-0.031	0.027	0.067	0.037
27	-0.045	0.014	0.000	0.063	0.063
28	0.015	0.026	-0.086	-0.228	-0.065
29	-0.004	-0.032	-0.045	-0.121	-0.290
30	-0.004	-0.008	0.034	0.042	0.034
31	0.024	0.011	-0.033	-0.010	-0.065
32	0.062	0.005	-0.037	-0.047	-0.064
33	-0.034	0.008	0.071	0.035	-0.013
34	-0.006	-0.005	-0.002	-0.010	-0.014
35	0.010	0.048	0.003	0.006	-0.036
36	-0.002	0.028	0.014	-0.027	-0.010
37	0.011	0.027	-0.016	-0.007	0.002
38	-0.006	0.004	-0.017	0.012	-0.021
39	0.047	0.046	-0.014	-0.014	-0.010
40	0.008	0.025	0.004	-0.022	-0.041
41	0.035	0.044	0.035	-0.001	0.013
42	0.058	0.036	-0.018	-0.017	-0.019
43	0.025	0.034	0.005	-0.002	0.006
44	0.005	0.004	-0.002	-0.022	-0.023
45	0.015	0.042	-0.029	0.001	-0.014
46	-0.046	0.025	0.005	-0.023	0.018
47	-0.001	0.023	0.004	-0.039	0.021
48	-0.014	0.055	0.002	-0.041	0.001
49	-0.016	0.041	-0.005	-0.020	0.018
50	-0.002	-0.009	-0.004	-0.029	0.018
51	-0.008	0.024	-0.022	-0.046	0.000
52	-0.018	0.022	-0.014	-0.018	-0.003
53	0.008	0.025	-0.017	-0.052	-0.013
54	0.002	0.028	-0.016	0.008	0.024
55	-0.008	0.034	0.013	-0.019	-0.002
56	0.012	0.021	0.019	-0.022	0.001
57	-0.026	0.025	0.036	-0.007	0.006
58	-0.014	0.008	0.018	-0.008	-0.022
59	0.005	0.045	-0.015	-0.005	0.005
60	-0.003	0.053	-0.010	-0.043	-0.032
61	-0.009	-0.031	-0.007	-0.017	-0.064
62	-0.055	-0.037	-0.017	-0.008	-0.031



63	0.044	0.023	0.000	0.020	-0.006
64	0.032	0.003	0.003	0.010	-0.028
65	0.002	0.005	0.023	-0.033	-0.047
66	0.026	0.039	-0.012	0.013	0.041
67	-0.003	0.030	-0.022	-0.008	0.006
68	-0.032	0.014	-0.003	-0.013	0.010
69	-0.002	-0.006	-0.031	0.003	0.015
70	0.076	0.018	0.005	0.011	0.053
71	0.013	-0.014	0.039	-0.027	-0.056
72	-0.035	-0.038	-0.020	0.026	-0.014
73	0.009	0.009	0.042	0.016	-0.020
74	-0.002	-0.041	-0.001	0.029	0.021
75	-0.023	0.029	-0.003	-0.006	-0.031
76	-0.004	-0.028	0.040	-0.041	0.014
77	0.055	-0.013	0.007	-0.011	0.064
78	-0.042	-0.025	-0.004	0.024	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.013	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.045	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.008	-0.179	-0.048
29	0.060	0.232	-0.063	-0.053	-0.215
30	-0.092	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.026	0.023
34	0.051	-0.013	-0.036	0.001	0.005
35	0.026	0.018	0.024	0.013	-0.018
36	0.041	0.004	0.041	0.006	0.023
37	0.027	0.016	-0.020	0.016	-0.027
38	0.033	0.034	0.031	0.028	-0.004

39	0.046	0.033	0.003	0.034	-0.012
40	0.026	0.031	-0.004	0.021	-0.015
41	0.026	-0.016	-0.014	-0.001	0.013
42	-0.040	0.027	-0.001	0.049	0.003
43	0.039	-0.001	-0.007	0.036	-0.012
44	0.055	0.023	-0.008	0.019	-0.002
45	0.026	-0.020	0.001	0.040	-0.001
46	0.018	-0.018	-0.039	-0.053	0.023
47	0.004	0.027	-0.022	-0.025	-0.034
48	-0.016	0.007	-0.016	-0.016	-0.033
49	0.009	0.017	-0.019	-0.015	-0.026
50	-0.011	0.001	-0.017	0.024	-0.007
51	-0.008	0.008	-0.010	-0.008	-0.015
52	-0.007	0.017	-0.015	-0.017	-0.028
53	-0.025	0.017	-0.007	-0.017	-0.029
54	-0.024	-0.033	-0.020	-0.033	0.001
55	-0.035	0.019	-0.021	-0.007	-0.002
56	-0.018	0.024	0.020	-0.034	-0.048
57	-0.023	0.009	-0.005	0.004	-0.039
58	-0.017	0.040	-0.055	-0.035	-0.033
59	0.000	-0.048	-0.009	-0.032	-0.009
60	0.022	-0.014	0.021	-0.009	-0.020
61	-0.006	-0.001	0.016	-0.001	-0.011
62	0.000	-0.002	0.004	0.008	0.000
63	0.027	0.072	-0.049	-0.011	-0.018
64	0.047	-0.007	0.023	0.028	-0.006
65	0.002	0.035	-0.023	-0.039	-0.059
66	-0.011	-0.005	-0.026	0.041	-0.020
67	-0.019	-0.004	-0.002	-0.010	-0.047
68	0.035	0.000	-0.043	0.011	-0.007
69	0.021	0.073	-0.011	0.000	-0.030
70	0.031	-0.026	-0.005	0.000	0.016
71	-0.053	-0.011	0.005	0.045	-0.015
72	0.014	-0.012	0.039	-0.015	-0.021
73	-0.011	-0.026	0.055	0.004	0.019
74	0.018	-0.022	0.029	0.020	0.036
75	-0.005	0.023	-0.005	-0.006	-0.002
76	-0.001	-0.044	0.039	-0.008	0.027
77	-0.017	-0.012	0.034	0.052	0.136
78	-0.038	-0.009	0.029	0.011	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

21

22

23

24

25

21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.054	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.041	0.031	0.021	0.022	0.015
35	0.062	0.000	0.034	0.011	-0.014
36	0.055	0.026	0.032	-0.003	0.011
37	0.060	0.004	0.042	-0.009	0.024
38	0.096	-0.013	0.024	-0.012	0.002
39	0.082	0.017	0.044	-0.021	0.014
40	0.064	-0.002	0.074	0.010	-0.004
41	0.066	0.038	0.039	0.020	-0.002
42	0.038	0.028	0.028	-0.017	0.001
43	0.078	-0.017	0.043	-0.010	0.008
44	0.068	0.009	0.039	-0.004	0.007
45	0.056	-0.001	0.063	0.006	0.032
46	0.066	-0.006	0.026	-0.013	0.013
47	-0.032	0.006	0.025	-0.019	0.014
48	-0.009	-0.006	-0.008	-0.043	-0.009
49	-0.020	0.029	-0.009	0.013	-0.020
50	-0.016	0.020	-0.016	-0.027	0.016
51	-0.011	0.009	0.013	-0.066	0.008
52	-0.014	-0.019	-0.014	-0.051	0.020
53	0.011	-0.007	-0.013	-0.035	-0.006
54	-0.022	0.013	-0.020	-0.013	0.017
55	-0.016	0.007	0.020	0.003	-0.043
56	0.003	-0.016	0.019	-0.019	-0.004
57	-0.020	-0.028	0.023	-0.050	0.021
58	0.035	-0.013	0.007	-0.014	-0.008
59	0.031	-0.002	-0.001	0.045	0.006
60	0.022	-0.003	-0.002	0.017	0.012
61	-0.035	-0.024	-0.003	0.024	-0.004
62	-0.031	0.014	-0.001	-0.011	0.009
63	0.040	-0.007	-0.006	-0.019	0.006

64	-0.003	0.003	-0.053	0.041	-0.015
65	0.011	-0.020	0.014	-0.028	-0.045
66	-0.017	-0.037	0.052	-0.042	-0.025
67	-0.030	-0.019	-0.043	0.000	-0.022
68	-0.005	-0.017	-0.011	0.010	0.012
69	0.030	-0.016	-0.004	-0.037	0.038
70	-0.019	0.019	0.007	0.019	0.001
71	-0.035	-0.030	0.019	-0.010	-0.040
72	0.034	-0.035	0.043	0.013	0.004
73	-0.037	0.028	0.007	-0.009	0.031
74	0.034	0.015	0.020	0.055	-0.033
75	0.000	-0.035	0.017	0.008	0.013
76	-0.030	0.039	0.016	-0.004	0.001
77	-0.074	0.079	0.027	0.034	0.024
78	0.048	-0.001	0.031	-0.001	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.044	-0.072	-0.288	0.256
34	-0.008	0.038	0.017	-0.005	-0.002
35	-0.045	-0.030	0.019	-0.011	0.045
36	-0.025	0.013	0.024	0.004	0.028
37	-0.027	0.010	-0.005	-0.006	0.000
38	-0.033	0.016	-0.007	0.009	0.009
39	-0.040	-0.009	-0.007	0.011	0.030
40	-0.022	0.001	-0.039	-0.006	0.029
41	-0.017	0.010	-0.021	0.003	0.011
42	0.003	0.017	-0.029	0.003	0.019
43	-0.037	-0.006	-0.016	-0.018	0.045
44	-0.039	-0.019	0.008	-0.007	0.007
45	-0.030	0.020	-0.023	0.021	0.032
46	-0.048	-0.010	-0.005	-0.004	0.012
47	-0.013	0.010	-0.024	0.006	-0.002
48	-0.015	-0.017	-0.009	0.040	-0.019
49	0.010	0.008	0.002	0.011	-0.027

50	0.028	-0.006	0.008	0.046	-0.022
51	-0.001	-0.017	-0.007	0.019	-0.014
52	-0.005	-0.001	0.014	0.051	-0.039
53	-0.022	-0.013	-0.008	0.029	0.023
54	0.033	0.021	-0.032	-0.019	-0.009
55	-0.015	0.018	-0.029	0.026	-0.027
56	0.009	0.004	-0.018	0.018	-0.047
57	-0.011	-0.018	-0.046	0.014	-0.011
58	0.008	0.022	-0.003	0.017	-0.051
59	0.014	-0.036	0.019	-0.004	-0.045
60	-0.011	0.029	0.012	0.001	0.009
61	0.009	0.048	0.039	-0.057	-0.036
62	-0.020	-0.025	-0.021	0.028	0.020
63	0.031	-0.014	0.005	0.022	-0.042
64	-0.002	-0.010	0.002	0.006	0.040
65	-0.004	0.022	0.017	-0.003	0.046
66	-0.013	0.058	-0.016	-0.014	0.006
67	-0.028	0.008	0.020	0.028	-0.020
68	0.004	-0.013	0.013	-0.010	-0.027
69	0.000	0.014	0.006	-0.040	-0.025
70	-0.009	-0.015	0.003	-0.017	-0.017
71	-0.049	-0.007	-0.059	-0.024	0.010
72	-0.038	-0.017	-0.008	-0.032	0.038
73	-0.006	0.022	-0.015	0.023	0.012
74	0.026	0.030	0.022	-0.022	0.046
75	-0.022	-0.006	-0.029	-0.046	0.001
76	-0.011	0.051	-0.012	-0.044	0.019
77	0.016	-0.017	0.013	-0.020	0.015
78	-0.021	0.014	-0.001	0.024	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.005	-0.009	-0.021	1.000	
35	0.021	-0.010	0.006	0.282	1.000
36	0.005	-0.006	0.010	0.336	0.675
37	0.034	0.004	0.006	0.246	0.419
38	0.006	-0.018	0.013	0.315	0.615
39	0.016	0.010	0.028	0.334	0.639
40	0.007	-0.011	0.007	0.285	0.586

41	0.006	0.007	0.004	0.239	0.477
42	-0.028	0.019	-0.003	0.170	0.384
43	0.017	-0.010	0.015	0.332	0.627
44	0.008	0.011	0.016	0.322	0.641
45	0.025	-0.001	0.013	0.302	0.586
46	0.034	-0.020	-0.005	0.103	0.292
47	0.009	-0.016	0.011	0.032	0.013
48	0.035	-0.020	-0.015	0.013	0.025
49	-0.001	-0.006	-0.038	-0.016	-0.009
50	0.022	-0.022	-0.065	0.032	0.015
51	0.035	-0.006	-0.003	0.008	0.008
52	0.029	-0.018	-0.027	0.032	0.007
53	0.049	-0.035	-0.014	0.024	0.055
54	0.009	-0.042	0.002	0.015	-0.050
55	0.035	-0.017	-0.031	0.031	-0.031
56	0.028	-0.024	0.014	0.043	0.012
57	0.060	0.016	-0.024	0.016	-0.012
58	0.038	0.013	-0.058	0.004	-0.001
59	0.034	-0.039	-0.034	-0.033	-0.017
60	0.038	0.028	0.005	0.001	-0.029
61	0.015	0.000	0.038	-0.041	-0.026
62	-0.018	0.023	0.026	-0.004	-0.022
63	0.020	0.015	-0.007	0.027	0.003
64	-0.007	-0.003	0.026	-0.007	0.031
65	-0.018	0.017	0.011	0.051	0.025
66	-0.029	-0.007	-0.024	0.002	-0.006
67	0.011	-0.010	0.004	-0.045	-0.003
68	-0.007	-0.039	0.008	0.065	0.002
69	-0.017	0.001	0.015	-0.024	-0.014
70	-0.017	0.016	-0.034	-0.006	0.008
71	-0.023	0.038	-0.036	0.003	0.051
72	-0.022	0.002	0.040	-0.023	-0.005
73	-0.027	0.010	0.004	0.013	0.046
74	-0.037	0.008	0.021	-0.055	-0.011
75	0.024	-0.004	0.032	0.017	-0.001
76	-0.076	-0.005	-0.006	-0.013	0.040
77	-0.026	0.016	0.019	-0.035	0.025
78	0.019	-0.011	-0.013	0.122	0.314

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				

37	0.484	1.000			
38	0.702	0.457	1.000		
39	0.713	0.456	0.636	1.000	
40	0.662	0.431	0.622	0.623	1.000
41	0.565	0.353	0.506	0.516	0.495
42	0.440	0.296	0.392	0.387	0.377
43	0.741	0.469	0.660	0.688	0.636
44	0.725	0.474	0.662	0.676	0.607
45	0.698	0.454	0.610	0.646	0.585
46	0.362	0.260	0.318	0.323	0.292
47	0.022	0.035	-0.019	0.033	0.004
48	0.017	0.001	-0.005	0.001	0.011
49	-0.026	-0.056	-0.021	-0.040	-0.003
50	0.007	0.007	-0.040	-0.008	-0.002
51	-0.011	-0.004	-0.027	-0.012	-0.010
52	-0.011	0.015	-0.021	-0.026	-0.018
53	0.024	0.022	0.007	0.030	0.010
54	-0.025	0.012	-0.040	-0.015	-0.021
55	-0.016	0.018	-0.032	-0.045	-0.034
56	0.016	0.029	-0.012	-0.013	-0.003
57	-0.012	-0.005	-0.028	-0.036	-0.019
58	-0.016	0.012	-0.029	-0.032	-0.054
59	-0.012	0.011	0.000	0.020	0.015
60	-0.005	-0.005	0.005	-0.013	0.016
61	-0.006	-0.023	-0.042	-0.027	-0.020
62	-0.036	0.009	-0.014	-0.029	0.010
63	-0.012	0.031	0.051	-0.007	-0.022
64	0.026	0.021	0.014	0.053	0.043
65	0.056	0.031	0.029	0.059	0.031
66	0.003	0.006	0.011	0.014	0.034
67	0.014	0.013	0.011	0.024	-0.012
68	0.010	-0.056	-0.024	0.003	0.008
69	-0.025	-0.011	0.007	0.009	0.020
70	-0.012	0.000	-0.010	-0.009	-0.037
71	0.016	0.027	0.011	0.040	0.009
72	-0.001	0.022	0.033	0.013	0.020
73	0.022	0.007	0.010	0.004	0.023
74	-0.012	-0.049	0.022	-0.018	-0.004
75	0.005	0.011	0.041	0.013	-0.010
76	0.025	-0.037	-0.003	0.011	0.016
77	0.006	-0.001	-0.007	0.002	0.026
78	0.325	0.177	0.399	0.313	0.280

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.289	1.000			
43	0.534	0.412	1.000		
44	0.527	0.392	0.693	1.000	
45	0.491	0.404	0.662	0.650	1.000
46	0.276	0.199	0.334	0.319	0.287
47	-0.010	-0.011	0.015	-0.002	0.024
48	-0.024	-0.009	0.028	0.004	0.008
49	-0.023	-0.017	-0.023	-0.029	-0.020
50	-0.017	0.012	0.018	-0.007	-0.004
51	-0.040	0.010	0.011	-0.011	-0.005
52	-0.031	0.008	-0.005	-0.035	-0.005
53	-0.035	0.006	0.017	0.013	0.000
54	-0.014	-0.006	-0.011	-0.024	-0.028
55	-0.040	0.005	-0.030	-0.047	-0.012
56	-0.007	0.005	0.022	0.002	0.003
57	-0.020	-0.026	-0.006	-0.011	-0.025
58	-0.045	-0.022	-0.016	-0.027	-0.023
59	-0.003	0.012	-0.016	-0.037	0.005
60	-0.004	0.001	-0.014	-0.009	-0.006
61	0.028	-0.016	-0.017	-0.029	0.006
62	-0.033	0.008	-0.032	-0.018	-0.020
63	-0.012	0.034	0.030	0.013	0.011
64	0.039	0.015	0.046	0.027	0.039
65	0.033	0.025	0.030	0.056	0.026
66	0.022	0.040	0.041	0.011	0.022
67	0.013	-0.042	-0.002	-0.007	0.009
68	-0.026	0.003	0.026	0.010	0.011
69	-0.011	0.043	-0.007	-0.015	-0.011
70	-0.020	-0.014	-0.021	-0.033	-0.025
71	0.013	0.010	0.027	0.037	0.021
72	-0.011	0.000	-0.010	0.006	-0.008
73	0.010	-0.002	0.006	0.021	0.004
74	0.015	-0.034	-0.014	0.001	0.013
75	-0.004	-0.003	0.003	0.006	-0.006
76	0.007	-0.002	-0.010	0.009	0.005
77	0.020	-0.041	0.013	-0.004	0.018
78	0.238	0.151	0.306	0.312	0.276

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES



	46	47	48	49	50
46	1.000				
47	-0.049	1.000			
48	-0.026	0.698	1.000		
49	-0.050	0.461	0.480	1.000	
50	0.001	0.505	0.585	0.399	1.000
51	-0.026	0.627	0.708	0.461	0.526
52	-0.032	0.621	0.681	0.420	0.502
53	-0.004	0.503	0.578	0.355	0.417
54	-0.022	0.382	0.459	0.242	0.352
55	-0.042	0.656	0.736	0.489	0.554
56	-0.049	0.657	0.723	0.446	0.534
57	-0.036	0.572	0.678	0.438	0.507
58	-0.075	0.376	0.408	0.280	0.306
59	0.003	-0.025	-0.040	-0.035	-0.064
60	0.026	-0.077	-0.004	0.003	-0.038
61	-0.036	-0.011	-0.100	0.012	-0.021
62	0.000	-0.027	-0.023	-0.083	-0.047
63	-0.002	-0.005	-0.016	-0.008	-0.060
64	-0.015	0.030	0.045	-0.047	0.002
65	0.007	-0.033	-0.019	-0.022	0.018
66	0.009	0.021	-0.005	-0.018	-0.036
67	0.008	0.051	-0.007	-0.006	0.012
68	-0.017	0.012	0.053	0.007	-0.003
69	-0.014	-0.038	-0.040	-0.027	-0.015
70	-0.020	0.023	0.069	0.022	0.041
71	-0.031	-0.002	0.000	-0.017	0.015
72	0.056	-0.253	-0.268	-0.196	-0.472
73	0.029	-0.053	-0.065	-0.016	-0.039
74	0.053	-0.604	-0.659	-0.432	-0.513
75	-0.027	0.020	0.009	-0.005	-0.514
76	-0.002	-0.037	-0.031	-0.025	-0.010
77	-0.020	-0.028	-0.046	-0.037	-0.050
78	0.135	-0.024	0.004	-0.025	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.602	1.000			
53	0.529	0.493	1.000		
54	0.452	0.401	0.366	1.000	

55	0.685	0.643	0.535	0.446	1.000
56	0.654	0.612	0.530	0.406	0.701
57	0.649	0.569	0.481	0.393	0.654
58	0.391	0.351	0.351	0.264	0.381
59	-0.053	-0.025	-0.046	-0.047	-0.060
60	0.010	-0.027	0.014	0.043	-0.001
61	0.020	-0.013	-0.046	-0.045	0.037
62	-0.043	-0.028	-0.014	0.007	-0.051
63	-0.044	-0.010	-0.019	-0.020	-0.036
64	-0.063	0.012	0.010	0.013	0.000
65	-0.008	-0.072	-0.024	-0.019	0.015
66	0.002	0.027	-0.086	-0.034	0.001
67	-0.004	-0.023	0.003	-0.074	0.012
68	0.009	0.031	0.032	0.040	-0.100
69	0.027	-0.015	-0.039	-0.003	-0.027
70	-0.012	0.047	0.041	0.044	-0.016
71	-0.042	-0.001	0.025	-0.035	-0.004
72	-0.249	-0.209	-0.170	-0.175	-0.273
73	-0.039	-0.059	-0.056	-0.055	-0.053
74	-0.608	-0.577	-0.468	-0.402	-0.631
75	0.033	0.000	0.027	-0.012	0.007
76	-0.004	-0.028	0.000	-0.049	-0.009
77	-0.012	-0.044	-0.053	-0.078	-0.034
78	-0.018	-0.004	0.006	-0.028	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.630	1.000			
58	0.393	0.341	1.000		
59	-0.045	-0.077	-0.015	1.000	
60	-0.037	0.002	0.024	-0.026	1.000
61	-0.006	0.045	-0.055	-0.020	0.020
62	-0.042	-0.030	-0.071	0.001	0.003
63	-0.032	-0.039	0.032	0.032	-0.001
64	0.053	-0.042	0.006	0.090	0.008
65	0.022	0.000	-0.026	-0.062	-0.003
66	0.000	-0.015	-0.035	-0.032	-0.026
67	0.012	0.023	-0.012	-0.025	-0.022
68	-0.013	-0.061	0.069	0.021	-0.037
69	-0.101	-0.009	0.042	0.019	0.043
70	0.009	-0.038	0.041	0.051	-0.071

71	0.006	-0.024	-0.025	-0.028	0.054
72	-0.259	-0.220	-0.172	0.011	0.002
73	-0.059	-0.017	-0.055	-0.013	0.010
74	-0.612	-0.553	-0.359	0.065	0.013
75	0.025	0.030	0.003	0.020	0.002
76	-0.011	-0.010	-0.056	-0.030	0.002
77	-0.057	-0.027	-0.051	-0.021	0.019
78	-0.033	-0.007	-0.069	-0.019	0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.065	1.000			
63	-0.008	0.034	1.000		
64	-0.101	0.047	-0.012	1.000	
65	0.074	0.023	-0.051	-0.011	1.000
66	0.064	-0.017	0.065	-0.065	0.023
67	0.008	0.004	-0.037	-0.004	0.041
68	-0.134	-0.002	-0.017	0.014	-0.058
69	0.054	-0.018	0.010	-0.074	-0.039
70	-0.126	0.010	0.039	0.047	-0.068
71	-0.039	-0.006	-0.033	0.034	0.030
72	-0.041	0.033	-0.004	0.003	-0.039
73	0.049	-0.030	-0.223	-0.031	0.001
74	-0.001	0.025	-0.001	-0.032	0.020
75	-0.029	0.020	0.031	-0.032	-0.025
76	0.023	-0.049	-0.623	-0.019	0.049
77	-0.021	0.027	-0.026	-0.023	0.005
78	-0.032	0.048	-0.012	0.017	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.073	1.000			
68	-0.049	-0.014	1.000		
69	0.009	-0.013	-0.005	1.000	
70	-0.033	-0.040	0.140	-0.064	1.000
71	0.043	0.024	-0.046	-0.032	0.020
72	0.030	-0.025	0.050	0.002	0.032
73	0.005	0.046	-0.031	0.017	-0.014

74	-0.010	-0.020	-0.019	-0.004	-0.027
75	0.021	-0.004	0.035	0.007	-0.033
76	-0.019	0.041	0.010	-0.018	-0.008
77	-0.034	0.014	-0.015	0.028	0.036
78	0.001	-0.021	-0.015	0.001	0.016

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.018	1.000			
73	0.000	-0.012	1.000		
74	-0.037	0.248	0.036	1.000	
75	-0.002	0.307	0.019	0.007	1.000
76	0.035	0.017	0.259	0.058	-0.029
77	0.028	-0.059	0.175	0.049	0.017
78	0.014	0.055	-0.049	0.031	0.008

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	0.045	1.000	
78	0.023	0.137	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.021	78
200	1.014	78
300	1.014	43
400	1.018	43

500	1.014	43
600	1.009	43
700	1.003	12
800	1.005	73
900	1.003	73
1000	1.004	61

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		
PRESS15	0.915	0.915	0.914	0.915	



DUTIES15      0.915      0.915      0.915      0.915      0.915

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16  
 Category 1    0.881      4884.000  
 Category 2    0.119      662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL	43.091	0.291	0.000	22.41%	0.000	15.000	35.000

	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-14.500 71.552

Posterior Predictive P-Value 0.118

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON					
PHY15		0.971	0.071	0.000	0.837	1.107 *
CHOICE15		-0.069	0.025	0.003	-0.121	-0.021 *
BULLY15		0.032	0.048	0.258	-0.063	0.121
DUTIES15		-0.031	0.028	0.132	-0.086	0.023
PRESS15		-0.035	0.026	0.094	-0.083	0.017
KES15		0.226	0.045	0.000	0.133	0.315 *
KES15	WITH					
PHY15		0.052	0.004	0.000	0.044	0.059 *
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073 *
BULLY15		0.058	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.085	0.116 *
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092 *
PHY15	WITH					
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022 *
BULLY15		0.012	0.003	0.001	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.026	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.072	-0.044 *
PRESS15		-0.087	0.015	0.000	-0.117	-0.060 *
DUTIES15		0.173	0.014	0.000	0.145	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.119 *
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066 *
PRESS15	WITH					
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158 *
Means						
PHY15		0.002	0.006	0.373	-0.011	0.015
KES15		0.001	0.007	0.431	-0.014	0.015
CHOICE15		-0.002	0.015	0.457	-0.031	0.027
BULLY15		0.000	0.007	0.472	-0.013	0.014
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.013	0.473	-0.028	0.026
Variances						
PHY15		0.233	0.005	0.000	0.224	0.242 *
KES15		0.290	0.006	0.000	0.278	0.301 *

CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.566	0.775	0.000	2.286	5.328 *
EAT		4.191	0.825	0.000	2.878	6.137 *
ALC		2.841	0.843	0.000	1.455	4.679 *
PHY		3.791	0.963	0.000	2.031	5.845 *
PSY		3.882	0.816	0.000	2.609	5.730 *
SMO		4.381	0.997	0.000	2.733	6.650 *
TER		3.128	0.817	0.000	1.732	5.005 *
BEN		2.192	0.733	0.000	0.888	3.795 *
HPR		4.238	0.841	0.000	2.894	6.197 *
SPR		3.989	0.815	0.000	2.622	5.878 *
CUL		3.578	0.771	0.000	2.343	5.316 *
FEL		79.306	31.736	0.003	22.285	151.112 *

SING	BY					
PHY		1.000	0.000	0.000	1.000	1.000
PHYCAT16	ON					
PROG		-0.472	0.229	0.015	-0.968	-0.056 *
SING		-0.147	0.112	0.063	-0.395	0.043

PROG	WITH					
SING		0.000	0.032	0.492	-0.062	0.065

Intercepts						
ACC		0.467	0.073	0.000	0.320	0.605 *
ACT		0.118	0.141	0.204	-0.161	0.409
EAT		0.310	0.152	0.019	0.015	0.637 *
ALC		0.052	0.155	0.370	-0.244	0.355
PHY		0.208	0.149	0.079	-0.099	0.491
PSY		0.095	0.152	0.263	-0.201	0.421
SMO		0.321	0.188	0.047	-0.061	0.692
TER		0.186	0.155	0.102	-0.116	0.498
BEN		0.041	0.137	0.387	-0.227	0.321
HPR		0.224	0.160	0.083	-0.099	0.544
SPR		0.213	0.151	0.074	-0.074	0.517

CUL	0.024	0.144	0.439	-0.261	0.323	
FEL	42.664	5.555	0.000	31.609	53.730	*
Thresholds						
PHYCAT16\$1	1.334	0.040	0.000	1.260	1.417	*
Variances						
PROG	0.056	0.018	0.000	0.032	0.103	*
SING	0.260	0.124	0.000	0.096	0.559	*
Residual Variances						
PHYCAT16	0.009	0.010	0.000	0.000	0.037	*
ACC	0.251	0.052	0.000	0.174	0.377	*
ACT	0.447	0.101	0.000	0.302	0.688	*
EAT	0.294	0.078	0.000	0.178	0.486	*
ALC	0.875	0.184	0.000	0.611	1.321	*
PHY	0.224	0.131	0.000	0.016	0.509	*
PSY	0.422	0.099	0.000	0.273	0.655	*
SMO	0.807	0.185	0.000	0.531	1.243	*
TER	0.769	0.162	0.000	0.530	1.158	*
BEN	0.772	0.155	0.000	0.530	1.143	*
HPR	0.379	0.096	0.000	0.240	0.616	*
SPR	0.416	0.096	0.000	0.272	0.652	*
CUL	0.447	0.100	0.000	0.296	0.687	*
FEL	1464.372	311.011	0.000	1030.935	2241.535	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.366	0.462	*
CHOICE15		-0.064	0.023	0.003	-0.111	-0.020	*
BULLY15		0.014	0.021	0.258	-0.027	0.053	
DUTIES15		-0.026	0.023	0.132	-0.071	0.019	
PRESS15		-0.031	0.023	0.094	-0.073	0.015	
KES15		0.108	0.021	0.000	0.063	0.150	*

KES15	WITH					
PHY15		0.198	0.014	0.000	0.171	0.225 *
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131 *
BULLY15		0.219	0.013	0.000	0.193	0.245 *
PRESS15		0.186	0.013	0.000	0.159	0.212 *
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185 *
PHY15	WITH					
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044 *
BULLY15		0.050	0.014	0.001	0.022	0.078 *
PRESS15		0.081	0.014	0.000	0.054	0.107 *
DUTIES15		-0.080	0.014	0.000	-0.109	-0.052 *
CHOICE15	WITH					
BULLY15		-0.115	0.014	0.000	-0.141	-0.087 *
PRESS15		-0.084	0.014	0.000	-0.112	-0.058 *
DUTIES15		0.179	0.014	0.000	0.152	0.205 *
BULLY15	WITH					
PRESS15		0.214	0.013	0.000	0.189	0.239 *
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147 *
PRESS15	WITH					
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173 *
Means						
PHY15		0.005	0.013	0.373	-0.022	0.031
KES15		0.002	0.014	0.431	-0.025	0.028
CHOICE15		-0.002	0.014	0.457	-0.030	0.026
BULLY15		0.001	0.014	0.472	-0.026	0.029
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.014	0.473	-0.030	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
PROG	BY					

ACC	0.424	0.060	0.000	0.326	0.555	*
ACT	0.786	0.063	0.000	0.629	0.880	*
EAT	0.879	0.042	0.000	0.773	0.937	*
ALC	0.589	0.108	0.000	0.337	0.757	*
PHY	0.787	0.127	0.000	0.515	1.013	*
PSY	0.818	0.056	0.000	0.686	0.902	*
SMO	0.759	0.071	0.000	0.576	0.866	*
TER	0.645	0.096	0.000	0.419	0.789	*
BEN	0.508	0.121	0.000	0.236	0.699	*
HPR	0.854	0.049	0.000	0.729	0.922	*
SPR	0.826	0.055	0.000	0.694	0.905	*
CUL	0.785	0.065	0.000	0.622	0.880	*
FEL	0.436	0.132	0.003	0.147	0.664	*
SING BY						
PHY	0.449	0.107	0.000	0.259	0.672	*
PHYCAT16 ON						
PROG	-0.662	0.233	0.015	-0.977	-0.097	*
SING	-0.444	0.264	0.063	-0.885	0.127	
PROG WITH						
SING	-0.003	0.223	0.492	-0.423	0.430	
Intercepts						
ACC	0.839	0.151	0.000	0.542	1.126	*
ACT	0.107	0.129	0.204	-0.146	0.363	
EAT	0.274	0.133	0.019	0.013	0.555	*
ALC	0.046	0.131	0.370	-0.206	0.302	
PHY	0.184	0.132	0.079	-0.083	0.445	
PSY	0.085	0.132	0.263	-0.172	0.354	
SMO	0.230	0.136	0.047	-0.045	0.498	
TER	0.162	0.133	0.102	-0.099	0.413	
BEN	0.040	0.132	0.387	-0.210	0.311	
HPR	0.190	0.135	0.083	-0.082	0.452	
SPR	0.187	0.131	0.074	-0.065	0.454	
CUL	0.023	0.131	0.439	-0.231	0.287	
FEL	0.985	0.168	0.000	0.673	1.345	*
Thresholds						
PHYCAT16\$1	7.569	2.342	0.000	4.963	13.908	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	

SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.291	0.225	0.000	0.013	0.817	*
ACC	0.820	0.053	0.000	0.692	0.894	*
ACT	0.383	0.096	0.000	0.226	0.605	*
EAT	0.227	0.071	0.000	0.121	0.403	*
ALC	0.653	0.120	0.000	0.427	0.886	*
PHY	0.172	0.104	0.000	0.012	0.403	*
PSY	0.331	0.088	0.000	0.186	0.529	*
SMO	0.424	0.103	0.000	0.250	0.668	*
TER	0.584	0.117	0.000	0.377	0.825	*
BEN	0.742	0.115	0.000	0.512	0.944	*
HPR	0.270	0.080	0.000	0.150	0.468	*
SPR	0.318	0.087	0.000	0.181	0.518	*
CUL	0.384	0.098	0.000	0.226	0.613	*
FEL	0.810	0.109	0.000	0.559	0.978	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.022	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.709	0.225	0.000	0.183	0.987
ACC	0.180	0.053	0.000	0.106	0.308
ACT	0.617	0.096	0.000	0.395	0.774
EAT	0.773	0.071	0.000	0.597	0.879
ALC	0.347	0.120	0.000	0.114	0.573
PHY	0.828	0.104	0.000	0.597	0.988
PSY	0.669	0.088	0.000	0.471	0.814
SMO	0.576	0.103	0.000	0.332	0.750
TER	0.416	0.117	0.000	0.175	0.623
BEN	0.258	0.115	0.000	0.056	0.488
HPR	0.730	0.080	0.000	0.532	0.850



SPR	0.682	0.087	0.000	0.482	0.819
CUL	0.616	0.098	0.000	0.387	0.774
FEL	0.190	0.109	0.000	0.022	0.441

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16
_____
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	0	0	0	0

NU	PRESS15	DUTIES15
	_____	_____
	0	0

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
	_____	_____

PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	0	
DUTIES15	0	0

	ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0	1	2	3	4

	ALPHA	
	PRESS15	DUTIES15
	<hr/>	<hr/>
	5	6

	BETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	7	8	9	10

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

# TAU

PHYCAT16

78

NU

PHYCAT16	ACC	ACT	EAT	ALC
0	34	35	36	37

NU

PHY	PSY	SMO	TER	BEN
38	39	40	41	42

NU

HPR	SPR	CUL	FEL
43	44	45	46

LAMBDA

PROG	SING	PHYCAT16
------	------	----------

PHYCAT16	0	0	0
ACC	0	0	0
ACT	47	0	0
EAT	48	0	0
ALC	49	0	0
PHY	50	0	0
PSY	51	0	0
SMO	52	0	0
TER	53	0	0
BEN	54	0	0
HPR	55	0	0
SPR	56	0	0
CUL	57	0	0
FEL	58	0	0

THETA

PHYCAT16	ACC	ACT	EAT	ALC
----------	-----	-----	-----	-----

PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA				
	PHY	PSY	SMO	TER	BEN
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA			
	HPR	SPR	CUL	FEL
	<hr/>	<hr/>	<hr/>	<hr/>
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

	ALPHA		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
	0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

BETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.116</u>	<u>0.145</u>	<u>0.541</u>	<u>0.119</u>
PHY15	0.000	0.116	0.145	0.541	0.119
KES15	0.000	0.000	0.145	0.541	0.119
CHOICE15	0.000	0.000	0.000	0.541	0.119
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>



PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/> 1.110

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<hr/> 0.000	<hr/> 0.485	<hr/> 0.224	<hr/> 0.466	<hr/> 0.673

NU	PHY	PSY	SMO	TER	BEN
	<hr/> 0.342	<hr/> 0.251	<hr/> 0.347	<hr/> 0.385	<hr/> 0.212

NU	HPR	SPR	CUL	FEL
	<hr/> 0.409	<hr/> 0.433	<hr/> -0.067	<hr/> 45.726

LAMBDA			
	PROG	SING	PHYCAT16
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 1.000
ACC	1.000	0.000	0.000
ACT	1.000	0.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	1.000	0.000
PSY	1.000	0.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000
BEN	1.000	0.000	0.000

HPR	1.000	0.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	0.000	0.000
FEL	1.000	0.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
<hr/>					
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
<hr/>					
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
<hr/>				
HPR	0.426			
SPR	0.000	0.361		

CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG		SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000

	BETA		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

	PSI		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	1.000		
SING	0.000	1.000	
PHYCAT16	0.000	0.000	1.000

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity

2392

Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.411604D-04				
2	0.917803D-05	0.541359D-04			
3	-0.847138D-05	-0.192238D-04	0.220894D-03		
4	0.153945D-05	0.975472D-05	-0.126624D-04	0.461415D-04	
5	0.711034D-05	0.190903D-04	-0.193725D-04	0.186873D-04	0.190751D-03
6	-0.571065D-05	-0.160909D-04	0.361012D-04	-0.159739D-04	-0.417501D-04
7	0.663022D-05	0.110059D-05	0.413525D-05	-0.661057D-05	-0.313029D-04
8	0.715370D-05	-0.458030D-05	-0.688814D-05	-0.509975D-05	-0.316300D-04
9	0.320569D-05	0.649212D-05	0.403707D-05	0.627644D-05	0.206316D-05
10	-0.703525D-07	0.127655D-04	0.181913D-04	0.118272D-04	0.125337D-04
11	0.363921D-05	0.241024D-05	0.329627D-06	0.487064D-06	0.159666D-04
12	-0.358249D-05	-0.239186D-05	-0.397187D-05	-0.689031D-05	0.153366D-04
13	0.427166D-06	0.717586D-06	-0.150632D-05	0.150821D-06	0.149749D-05
14	-0.693736D-06	0.125733D-05	-0.127158D-05	-0.395658D-07	-0.812263D-06
15	-0.257819D-06	0.422021D-06	-0.340043D-05	0.806958D-06	0.157526D-05
16	-0.182046D-05	-0.141975D-05	-0.442831D-05	0.598358D-06	-0.388183D-05
17	-0.207972D-06	-0.140193D-05	0.647511D-05	-0.161715D-05	-0.532136D-06

18	0.224105D-05	0.968478D-05	-0.988050D-05	0.180274D-05	0.440800D-05
19	-0.665459D-06	-0.504052D-06	0.991548D-06	0.441351D-06	-0.290896D-05
20	0.995196D-08	-0.692840D-06	-0.131029D-05	-0.160573D-06	-0.120998D-05
21	-0.176844D-06	0.879763D-06	0.266721D-05	0.151536D-05	0.190760D-05
22	-0.808301D-06	-0.190440D-06	-0.111615D-05	0.887050D-06	0.572568D-06
23	-0.394592D-06	0.630795D-06	-0.192790D-05	0.403667D-06	-0.253694D-05
24	0.562586D-06	-0.775536D-06	0.247982D-05	-0.167615D-05	0.719976D-06
25	-0.402318D-05	0.531019D-05	-0.201718D-05	-0.880694D-06	0.929759D-05
26	-0.213599D-06	-0.984357D-06	0.204180D-05	0.977152D-06	-0.291806D-05
27	-0.152127D-05	-0.900238D-05	0.115197D-04	0.205025D-05	-0.111117D-04
28	-0.118854D-05	-0.727018D-06	0.199031D-06	0.730114D-07	0.790756D-07
29	-0.191028D-05	-0.119227D-05	0.298471D-05	-0.170968D-05	-0.487235D-05
30	0.129456D-05	0.280565D-05	-0.332574D-05	0.123956D-05	-0.649635D-05
31	0.167805D-06	0.800622D-06	-0.105405D-06	-0.250955D-06	0.142110D-07
32	-0.142350D-05	0.383958D-05	0.161143D-06	-0.123596D-05	0.415158D-05
33	0.258004D-05	-0.323335D-05	-0.214980D-04	0.399197D-05	0.744261D-06
34	-0.185973D-04	-0.120968D-04	0.187473D-04	-0.497969D-05	0.323431D-04
35	-0.254830D-04	0.314714D-05	0.441031D-04	0.119532D-04	0.350578D-04
36	0.705299D-05	0.138211D-04	0.381181D-04	0.341310D-04	0.889406D-04
37	0.119612D-04	-0.319148D-04	0.397476D-04	-0.483287D-05	0.525413D-04
38	-0.107909D-04	0.337660D-05	0.718575D-04	0.477696D-04	-0.226253D-05
39	-0.132143D-04	0.207522D-05	-0.592068D-04	0.218135D-04	0.461597D-04
40	0.393097D-04	0.803021D-05	0.286587D-04	0.369307D-04	0.349725D-04
41	-0.189028D-04	0.379025D-04	-0.105763D-04	0.266258D-04	0.404277D-04
42	0.400240D-04	-0.300029D-04	0.111030D-03	0.349011D-06	0.163860D-04
43	0.286781D-04	0.243155D-04	0.368209D-04	0.417618D-04	0.105319D-03
44	-0.176524D-04	0.649002D-05	0.337887D-05	0.285263D-04	0.946215D-04
45	0.479809D-05	0.388710D-05	-0.324957D-05	0.136766D-04	0.843541D-04
46	-0.340711D-04	0.676503D-03	0.330321D-03	0.156286D-02	0.221398D-02
47	0.108771D-03	0.109772D-03	-0.175996D-03	0.115634D-04	0.207026D-03
48	0.175712D-03	0.206769D-03	-0.121804D-03	0.165727D-03	-0.368071D-04
49	0.188231D-04	0.167194D-03	0.881816D-04	-0.620008D-05	0.352934D-03
50	0.116865D-04	-0.669151D-05	-0.286753D-03	0.242653D-04	0.888253D-04
51	0.790497D-04	0.215013D-03	-0.532747D-03	0.269504D-03	0.138676D-03
52	0.210069D-03	0.103408D-03	-0.186999D-04	-0.605614D-04	-0.140472D-03
53	0.159345D-04	0.107091D-03	-0.345587D-03	-0.121001D-04	-0.239858D-03
54	0.205301D-03	0.317184D-03	-0.453670D-03	0.724137D-04	0.166552D-03
55	0.241000D-03	0.635568D-04	-0.123142D-03	-0.870827D-04	0.937320D-04
56	0.382895D-03	0.343951D-03	-0.246089D-03	0.167132D-03	0.100176D-03
57	0.137306D-03	0.290665D-03	-0.440486D-03	-0.675822D-05	0.979382D-04
58	-0.679248D-03	0.631299D-02	-0.168517D-01	0.951295D-02	0.857700D-02
59	-0.626580D-05	0.732477D-05	0.377457D-04	0.199314D-05	-0.396339D-04
60	0.219517D-04	0.316074D-04	-0.729466D-04	0.125624D-04	0.578783D-04
61	0.850148D-05	-0.652803D-06	-0.282611D-04	-0.207558D-04	-0.224553D-04

62	0.783832D-05	0.733476D-04	-0.858056D-06	0.831697D-05	-0.121855D-04
63	0.133198D-04	-0.203052D-04	0.665452D-04	-0.925349D-05	0.491844D-06
64	0.536197D-04	0.257753D-04	0.231537D-04	-0.983490D-05	-0.156203D-05
65	0.212728D-05	-0.771127D-05	0.192592D-04	0.118352D-04	0.509954D-04
66	0.658118D-04	-0.170829D-04	0.151216D-05	0.515737D-05	-0.924595D-04
67	-0.868487D-05	-0.257118D-04	-0.666715D-04	-0.634636D-05	-0.697240D-04
68	-0.448622D-05	0.968079D-05	0.197310D-04	-0.290417D-05	-0.198016D-04
69	-0.870000D-05	-0.484377D-05	-0.336408D-04	-0.493748D-05	0.361927D-04
70	-0.222397D-04	-0.209260D-04	0.757581D-04	-0.149142D-04	-0.181134D-04
71	-0.236396D-02	0.718976D-01	-0.924373D-01	0.101140D+00	0.116977D+00
72	0.374813D-04	0.388784D-04	0.260085D-04	0.134527D-04	-0.854400D-04
73	0.160797D-04	0.552095D-04	0.214355D-05	0.593919D-05	0.474033D-05
74	-0.177824D-05	-0.344126D-05	0.136284D-05	0.237373D-05	0.976084D-06
75	0.251993D-05	0.113778D-04	0.570435D-05	0.220009D-05	-0.442955D-05
76	0.176002D-04	0.176491D-05	-0.374919D-04	0.739702D-05	0.122436D-04
77	-0.138385D-05	-0.199725D-05	0.434717D-05	0.854256D-06	0.559313D-05
78	0.247981D-05	-0.278951D-05	-0.738088D-05	0.123227D-05	-0.499941D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177393D-03				
7	0.229302D-04	0.502458D-02			
8	-0.256345D-04	-0.370930D-03	0.203846D-02		
9	-0.147792D-04	0.398934D-04	0.133893D-03	0.631519D-03	
10	0.521272D-05	-0.131538D-03	-0.309451D-03	0.158372D-04	0.228024D-02
11	-0.122124D-04	-0.775442D-05	-0.164512D-03	0.151818D-04	-0.214128D-03
12	0.129748D-04	0.359276D-04	0.189138D-03	-0.106069D-03	0.803650D-04
13	0.203536D-07	0.892696D-05	0.181523D-05	-0.238848D-05	-0.509646D-06
14	-0.811976D-08	0.182532D-05	-0.535246D-05	-0.418635D-05	0.105084D-04
15	-0.218909D-05	-0.115672D-04	-0.376997D-05	-0.385569D-05	0.928484D-05
16	-0.158539D-05	-0.107922D-04	0.797693D-05	0.160093D-05	0.210119D-05
17	-0.118708D-05	0.663691D-05	-0.535129D-05	-0.745072D-06	0.418935D-05
18	-0.382330D-05	-0.215798D-04	-0.207134D-04	-0.226029D-04	-0.200429D-04
19	0.884367D-06	-0.913404D-05	0.286888D-05	0.704785D-06	0.423905D-05
20	0.612998D-06	0.684156D-06	-0.166514D-05	0.219743D-06	0.653737D-05
21	-0.147642D-05	0.999747D-05	-0.216413D-05	0.382841D-05	-0.116195D-04
22	-0.293937D-05	0.551812D-05	0.621585D-06	-0.864084D-06	0.938296D-06
23	-0.126586D-05	0.164726D-05	0.189025D-04	0.234898D-05	0.107076D-04
24	0.219090D-05	-0.364015D-05	-0.254518D-05	-0.603666D-05	0.931728D-05
25	0.181308D-05	-0.316470D-04	-0.860121D-05	0.229542D-05	0.155218D-04
26	-0.338170D-05	0.413211D-05	-0.585029D-05	0.304298D-06	-0.320814D-05
27	0.957083D-06	-0.212531D-04	-0.967819D-05	0.737021D-05	0.319284D-04

28	0.111847D-05	0.232694D-04	-0.106820D-04	-0.200355D-05	-0.566981D-05
29	0.335131D-05	0.175411D-04	-0.169564D-04	0.870816D-06	0.785190D-05
30	-0.108472D-05	-0.274613D-04	-0.925128D-05	-0.384707D-05	-0.165678D-04
31	0.320392D-05	0.303332D-05	0.312010D-06	0.576905D-06	0.350077D-05
32	0.198658D-05	0.375399D-04	0.130132D-05	0.132610D-04	-0.111095D-05
33	-0.128921D-05	0.888050D-05	-0.128422D-04	0.484151D-05	-0.821879D-05
34	0.193073D-04	-0.613012D-04	0.378998D-04	-0.776591D-04	-0.727367D-04
35	0.587108D-04	-0.208708D-03	0.249354D-03	0.339406D-04	-0.198113D-04
36	0.389549D-04	-0.118723D-03	0.282804D-03	0.208155D-03	0.648185D-04
37	0.915851D-04	-0.612969D-03	0.264966D-03	0.847798D-04	-0.101753D-04
38	0.493800D-04	0.401360D-03	0.134962D-05	0.160933D-03	-0.735602D-04
39	0.949333D-04	-0.481310D-04	0.155315D-03	0.165605D-03	-0.610192D-04
40	0.362348D-04	-0.362753D-03	0.420592D-03	0.441666D-04	0.219284D-04
41	0.294019D-05	-0.492447D-03	0.198244D-03	0.137014D-03	-0.374950D-04
42	-0.579490D-04	-0.174083D-03	0.583352D-04	0.486001D-04	0.516493D-04
43	0.114382D-04	-0.259260D-03	0.421953D-03	0.141497D-03	-0.176311D-04
44	0.364155D-04	-0.150155D-03	0.246222D-03	0.137842D-03	-0.514883D-04
45	0.242237D-04	-0.529446D-03	0.314185D-03	0.144904D-03	-0.103835D-03
46	-0.251731D-03	-0.347212D-02	0.493995D-02	0.228951D-02	0.918214D-02
47	0.654552D-04	-0.160817D-02	0.151909D-02	-0.440774D-04	-0.707213D-04
48	0.889498D-04	-0.174651D-02	0.130146D-02	-0.331615D-03	0.178799D-02
49	-0.902332D-04	0.176567D-02	0.145029D-02	-0.481430D-03	-0.271576D-04
50	-0.461931D-04	-0.100311D-03	0.175643D-02	0.451278D-03	0.117107D-02
51	0.115869D-03	-0.233857D-02	0.106539D-02	-0.101820D-05	0.288093D-03
52	0.108924D-03	0.540992D-03	0.116297D-02	-0.469301D-03	0.361700D-03
53	0.305612D-04	-0.613919D-03	0.713017D-03	-0.847665D-03	0.333167D-03
54	0.745488D-05	0.103520D-02	-0.268286D-03	-0.668181D-03	0.176326D-02
55	0.866376D-04	-0.113287D-02	0.534267D-03	0.281353D-03	0.113431D-02
56	-0.113934D-04	-0.109594D-02	0.155097D-02	0.815083D-04	-0.306994D-03
57	0.208322D-03	-0.212480D-02	0.928404D-03	-0.838749D-04	0.156443D-02
58	0.332450D-02	-0.102276D+00	0.546578D-01	-0.996019D-03	0.752466D-02
59	0.279161D-04	0.369572D-04	0.531006D-04	0.373109D-04	0.494385D-04
60	-0.327047D-04	0.190450D-03	0.287569D-04	-0.998137D-04	0.143158D-05
61	0.526919D-04	0.307895D-04	-0.242327D-05	0.606521D-04	-0.220165D-04
62	-0.338434D-04	0.284438D-03	-0.111884D-03	0.745024D-04	0.377239D-04
63	-0.405364D-05	0.559696D-04	-0.144106D-03	0.175575D-04	0.204047D-03
64	0.376264D-04	0.228412D-03	0.950030D-04	0.179411D-04	-0.597146D-04
65	-0.146031D-04	-0.229696D-03	-0.118975D-03	0.109650D-03	0.677607D-04
66	0.421864D-04	-0.296905D-04	0.253236D-03	-0.104628D-03	-0.276887D-03
67	0.110818D-04	-0.295121D-03	0.786613D-04	-0.434292D-04	-0.198185D-03
68	0.551563D-04	-0.198140D-03	0.633111D-04	-0.112505D-03	0.152234D-04
69	-0.154264D-04	-0.982969D-04	0.147634D-04	0.101408D-03	-0.943506D-04
70	-0.197509D-04	0.401451D-03	-0.202849D-04	0.613572D-04	-0.271518D-04
71	-0.121402D+00	0.630583D-01	0.122863D+00	-0.194593D+00	-0.244389D+00



72	0.610761D-04	0.341608D-03	-0.527910D-03	-0.400296D-03	-0.162680D-03
73	0.145727D-04	0.160797D-03	0.913701D-04	0.951748D-04	-0.970636D-05
74	-0.644327D-05	0.243848D-04	-0.265645D-04	0.749474D-05	-0.200036D-04
75	-0.320083D-05	-0.910856D-04	0.742879D-05	-0.435687D-04	-0.118886D-04
76	0.135950D-04	0.192806D-03	0.865282D-04	0.443954D-04	-0.218725D-03
77	0.168501D-05	-0.136794D-04	-0.204096D-04	0.129683D-04	0.754402D-05
78	0.490935D-05	0.107694D-02	0.566575D-04	0.809891D-05	-0.422836D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.684530D-03				
12	0.133077D-03	0.789610D-03			
13	-0.313512D-05	0.728167D-06	0.207453D-04		
14	-0.482655D-06	0.189529D-05	0.413587D-05	0.140543D-04	
15	0.630637D-06	-0.797943D-06	0.413219D-06	0.591243D-05	0.333594D-04
16	0.132409D-06	0.652916D-05	-0.419335D-05	-0.514142D-05	-0.279180D-05
17	-0.237539D-05	0.352622D-05	-0.491764D-06	-0.330300D-05	-0.121361D-04
18	0.805245D-05	0.164643D-05	0.570450D-06	0.116181D-05	0.821961D-05
19	-0.147759D-05	-0.366790D-06	0.996307D-06	0.312907D-05	0.119715D-05
20	-0.160948D-05	-0.284024D-05	-0.105438D-06	0.107891D-05	0.679659D-05
21	-0.127464D-05	-0.218933D-05	-0.675685D-06	-0.862314D-06	-0.905256D-06
22	0.419596D-05	0.448172D-05	0.429222D-06	-0.802913D-07	0.117092D-05
23	-0.941069D-05	-0.175683D-05	0.427867D-05	0.475503D-05	0.385495D-05
24	-0.289409D-05	0.274497D-05	0.804734D-06	0.379615D-05	0.101221D-04
25	0.773912D-05	-0.145038D-04	-0.192487D-05	-0.113767D-05	-0.355167D-05
26	-0.243295D-05	-0.601567D-05	0.874516D-06	0.174871D-05	0.148131D-05
27	-0.234492D-04	0.781016D-05	0.219023D-07	0.477158D-05	0.727727D-05
28	0.246686D-05	0.470794D-05	-0.249070D-05	-0.544730D-05	-0.238866D-05
29	-0.718676D-06	-0.639234D-05	-0.146543D-05	-0.321582D-05	-0.118601D-04
30	-0.135373D-05	-0.311119D-05	0.221617D-05	0.221085D-05	0.281612D-05
31	0.389685D-05	0.191618D-05	-0.941537D-06	-0.232739D-06	-0.236107D-05
32	0.222151D-04	0.211762D-05	-0.232534D-05	-0.242042D-05	-0.506940D-05
33	-0.150662D-04	0.357833D-05	0.551646D-05	0.221365D-05	-0.128629D-05
34	-0.114997D-04	-0.104060D-04	-0.767260D-06	-0.263773D-05	-0.595331D-05
35	0.386828D-04	0.191095D-03	0.179235D-05	0.292279D-05	-0.291163D-04
36	-0.820901D-05	0.121334D-03	0.958242D-05	-0.150915D-04	-0.854388D-05
37	0.462696D-04	0.117438D-03	-0.111792D-04	-0.435200D-05	0.162120D-05
38	-0.221265D-04	0.178654D-04	-0.115181D-04	0.697898D-05	-0.183011D-04
39	0.184910D-03	0.194984D-03	-0.942499D-05	-0.794847D-05	-0.912632D-05
40	0.390636D-04	0.131555D-03	0.329396D-05	-0.151934D-04	-0.443097D-04
41	0.141803D-03	0.189548D-03	0.247964D-04	-0.644630D-06	0.118167D-04
42	0.209355D-03	0.139718D-03	-0.110958D-04	-0.849402D-05	-0.149827D-04

43	0.105256D-03	0.150867D-03	0.363333D-05	-0.139250D-05	0.562972D-05
44	0.217086D-04	0.152248D-04	-0.140923D-05	-0.121894D-04	-0.200585D-04
45	0.560321D-04	0.170876D-03	-0.192364D-04	0.596212D-06	-0.113247D-04
46	-0.669615D-02	0.383410D-02	0.122524D-03	-0.479246D-03	0.561901D-03
47	-0.134297D-04	0.496757D-03	0.134560D-04	-0.113670D-03	0.949294D-04
48	-0.291925D-03	0.128201D-02	0.660319D-05	-0.126882D-03	0.637848D-05
49	-0.352476D-03	0.978062D-03	-0.193498D-04	-0.643128D-04	0.862984D-04
50	-0.398488D-04	-0.251501D-03	-0.176177D-04	-0.105482D-03	0.102872D-03
51	-0.179765D-03	0.543149D-03	-0.807480D-04	-0.140814D-03	0.148046D-05
52	-0.472816D-03	0.604304D-03	-0.623414D-04	-0.685610D-04	-0.181908D-04
53	0.161441D-03	0.577967D-03	-0.632567D-04	-0.160744D-03	-0.630795D-04
54	0.408173D-04	0.576562D-03	-0.545264D-04	0.230983D-04	0.102824D-03
55	-0.179733D-03	0.802549D-03	0.487164D-04	-0.606465D-04	-0.920104D-05
56	0.263329D-03	0.474425D-03	0.718558D-04	-0.686491D-04	0.500697D-05
57	-0.522914D-03	0.533122D-03	0.124594D-03	-0.193266D-04	0.271512D-04
58	-0.118042D-01	0.684443D-02	0.262998D-02	-0.936719D-03	-0.402441D-02
59	0.639036D-05	0.662194D-04	-0.346237D-05	-0.985171D-06	0.158870D-05
60	-0.738345D-05	0.148851D-03	-0.468658D-05	-0.163168D-04	-0.185032D-04
61	-0.191277D-04	-0.675710D-04	-0.256498D-05	-0.489142D-05	-0.289855D-04
62	-0.266109D-03	-0.191203D-03	-0.138265D-04	-0.579950D-05	-0.333897D-04
63	0.152557D-03	0.857481D-04	0.225950D-06	0.100552D-04	-0.437799D-05
64	0.840014D-04	0.958038D-05	0.114102D-05	0.388485D-05	-0.158270D-04
65	0.100274D-04	0.255221D-04	0.197713D-04	-0.230833D-04	-0.504028D-04
66	0.112566D-03	0.180108D-03	-0.853299D-05	0.768448D-05	0.381991D-04
67	-0.135065D-04	0.131982D-03	-0.156300D-04	-0.462357D-05	0.510216D-05
68	-0.813056D-04	0.386460D-04	-0.111494D-05	-0.483534D-05	0.552461D-05
69	-0.468409D-05	-0.159918D-04	-0.135572D-04	0.910871D-06	0.826860D-05
70	0.198435D-03	0.498602D-04	0.205460D-05	0.425625D-05	0.307271D-04
71	0.102317D+00	-0.119986D+00	0.551361D-01	-0.310577D-01	-0.101254D+00
72	-0.206534D-03	-0.243492D-03	-0.203989D-04	0.223903D-04	-0.179822D-04
73	0.252039D-04	0.269063D-04	0.212612D-04	0.658309D-05	-0.125940D-04
74	-0.814107D-06	-0.211914D-04	-0.449510D-07	0.196425D-05	0.223560D-05
75	-0.187646D-04	0.254489D-04	-0.471603D-06	-0.666237D-06	-0.565166D-05
76	-0.114669D-04	-0.977181D-04	0.223995D-04	-0.189864D-04	0.967967D-05
77	0.140172D-04	-0.368876D-05	0.320560D-06	-0.405756D-06	0.361497D-05
78	-0.446161D-04	-0.281972D-04	-0.683165D-06	0.362200D-05	-0.143894D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512275D-04				
17	0.119473D-04	0.645765D-04			
18	-0.105612D-04	-0.450287D-04	0.479858D-03		

19	-0.222367D-05	-0.747602D-06	-0.594759D-06	0.117572D-04	
20	-0.131844D-06	-0.488165D-05	0.146743D-05	0.282987D-05	0.143816D-04
21	0.670190D-06	0.158898D-04	-0.263609D-04	-0.177073D-05	-0.473849D-05
22	-0.468209D-06	-0.303622D-06	0.812451D-06	0.678613D-06	0.518987D-05
23	-0.324759D-05	-0.208976D-05	0.134313D-05	0.554892D-05	0.756421D-06
24	-0.157126D-05	-0.936800D-05	0.798568D-05	0.119486D-05	0.599539D-05
25	0.774221D-05	0.276367D-04	-0.364465D-04	0.191062D-05	-0.990363D-06
26	-0.255431D-06	-0.254095D-05	-0.273565D-05	0.206714D-05	0.469115D-05
27	-0.639999D-05	-0.127486D-04	-0.233831D-06	0.193423D-05	0.591944D-05
28	0.983711D-05	0.178368D-05	-0.116575D-05	-0.390207D-05	-0.114744D-05
29	0.306675D-05	0.132387D-04	-0.983587D-05	-0.127907D-05	-0.576921D-05
30	-0.927168D-05	-0.239740D-04	0.780650D-04	0.468303D-06	0.152494D-05
31	0.538670D-06	0.410532D-05	-0.100126D-04	-0.205568D-05	-0.590798D-05
32	0.535713D-05	0.938084D-05	-0.868556D-05	0.462892D-06	-0.381519D-05
33	-0.318652D-05	-0.664213D-05	0.280026D-04	0.148301D-05	0.144900D-05
34	0.264779D-04	-0.731800D-05	-0.575093D-04	0.326725D-06	0.126494D-05
35	0.263533D-04	0.199328D-04	0.750221D-04	0.650489D-05	-0.958667D-05
36	0.440788D-04	0.454397D-05	0.136603D-03	0.325073D-05	0.135172D-04
37	0.294018D-04	0.202745D-04	-0.680895D-04	0.845456D-05	-0.157035D-04
38	0.356998D-04	0.407080D-04	0.102668D-03	0.144918D-04	-0.229256D-05
39	0.495973D-04	0.398125D-04	0.987715D-05	0.175185D-04	-0.716273D-05
40	0.352211D-04	0.467005D-04	-0.162654D-04	0.136729D-04	-0.104827D-04
41	0.283411D-04	-0.198596D-04	-0.471986D-04	-0.437271D-06	0.782353D-05
42	-0.392811D-04	0.298854D-04	-0.316887D-05	0.228755D-04	0.161983D-05
43	0.450400D-04	-0.120521D-05	-0.247664D-04	0.198310D-04	-0.731002D-05
44	0.595572D-04	0.284608D-04	-0.256752D-04	0.100855D-04	-0.917348D-06
45	0.264266D-04	-0.227820D-04	0.176334D-05	0.199488D-04	-0.746909D-06
46	0.721957D-03	-0.795525D-03	-0.475014D-02	-0.100441D-02	0.487988D-03
47	0.237638D-04	0.165466D-03	-0.380141D-03	-0.670097D-04	-0.100060D-03
48	-0.947847D-04	0.495911D-04	-0.296756D-03	-0.460912D-04	-0.104388D-03
49	0.560959D-04	0.115093D-03	-0.347800D-03	-0.434031D-04	-0.825003D-04
50	-0.778850D-04	0.574504D-05	-0.366152D-03	0.787200D-04	-0.252824D-04
51	-0.478694D-04	0.539029D-04	-0.183852D-03	-0.220564D-04	-0.471466D-04
52	-0.513191D-04	0.137431D-03	-0.328120D-03	-0.587407D-04	-0.106291D-03
53	-0.144049D-03	0.110818D-03	-0.117577D-03	-0.465080D-04	-0.896677D-04
54	-0.127799D-03	-0.192222D-03	-0.322108D-03	-0.817403D-04	0.260592D-05
55	-0.213384D-03	0.125276D-03	-0.394342D-03	-0.199642D-04	-0.739979D-05
56	-0.103088D-03	0.154530D-03	0.352424D-03	-0.947949D-04	-0.148916D-03
57	-0.127733D-03	0.575492D-04	-0.778723D-04	0.106143D-04	-0.114349D-03
58	-0.378635D-02	0.100788D-01	-0.381020D-01	-0.375593D-02	-0.398094D-02
59	0.482451D-08	-0.203506D-04	-0.106893D-04	-0.573206D-05	-0.176592D-05
60	0.161882D-04	-0.113069D-04	0.460585D-04	-0.303832D-05	-0.755532D-05
61	-0.316502D-05	-0.702916D-06	0.274484D-04	-0.292466D-06	-0.310639D-05
62	0.608302D-06	-0.311373D-05	0.151742D-04	0.523280D-05	-0.335116D-06

63	0.254640D-04	0.758165D-04	-0.139529D-03	-0.502039D-05	-0.917863D-05
64	0.330220D-04	-0.534428D-05	0.489630D-04	0.940881D-05	-0.220292D-05
65	0.330849D-05	0.515087D-04	-0.938025D-04	-0.247058D-04	-0.414846D-04
66	-0.130241D-04	-0.696293D-05	-0.911861D-04	0.227870D-04	-0.123077D-04
67	-0.208998D-04	-0.441511D-05	-0.632758D-05	-0.537819D-05	-0.274285D-04
68	0.240582D-04	0.148192D-07	-0.914662D-04	0.350400D-05	-0.252778D-05
69	0.147453D-04	0.564812D-04	-0.232614D-04	0.317788D-07	-0.109498D-04
70	0.218696D-04	-0.205725D-04	-0.101007D-04	0.158516D-06	0.619447D-05
71	-0.117647D+00	-0.275590D-01	0.326297D-01	0.481548D-01	-0.172689D-01
72	0.235477D-04	-0.218559D-04	0.196237D-03	-0.115952D-04	-0.182320D-04
73	-0.846457D-05	-0.228955D-04	0.134829D-03	0.156862D-05	0.793604D-05
74	0.230245D-05	-0.321456D-05	0.114890D-04	0.123142D-05	0.250520D-05
75	-0.119102D-05	0.577193D-05	-0.335873D-05	-0.598838D-06	-0.246636D-06
76	-0.131450D-05	-0.437888D-04	0.106499D-03	-0.338401D-05	0.125685D-04
77	-0.117548D-05	-0.934514D-06	0.730988D-05	0.174102D-05	0.502929D-05
78	-0.108459D-04	-0.281613D-05	0.253144D-04	0.151925D-05	0.356230D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	21	22	23	24	25
21	0.517674D-04				
22	-0.573092D-05	0.235151D-04			
23	-0.760210D-06	0.486804D-06	0.441990D-04		
24	-0.339396D-05	0.226958D-05	0.914606D-05	0.576169D-04	
25	0.200878D-04	-0.103561D-05	-0.540662D-05	-0.198164D-04	0.212681D-03
26	-0.283788D-05	0.951345D-05	0.446342D-05	0.121808D-04	-0.934205D-05
27	-0.669949D-05	0.632529D-05	0.181600D-04	0.368961D-04	-0.327522D-04
28	-0.676346D-06	-0.467271D-06	-0.101076D-04	-0.343079D-05	0.462654D-05
29	0.154562D-05	-0.423183D-06	-0.579806D-05	-0.120307D-04	0.969816D-05
30	-0.183243D-04	0.351473D-05	0.511579D-05	0.529464D-05	-0.399017D-04
31	0.612179D-05	-0.755415D-05	-0.151230D-05	-0.593306D-05	0.853875D-05
32	0.177021D-05	0.629186D-06	-0.109639D-04	-0.255242D-04	0.457943D-04
33	-0.392203D-05	0.347424D-06	0.854888D-05	0.593620D-05	-0.209163D-04
34	0.213505D-04	0.108449D-04	0.100441D-04	0.120667D-04	0.163868D-04
35	0.629477D-04	0.319420D-06	0.314804D-04	0.119925D-04	-0.280462D-04
36	0.602043D-04	0.191533D-04	0.319469D-04	-0.347715D-05	0.236246D-04
37	0.663408D-04	0.315441D-05	0.432267D-04	-0.109743D-04	0.531905D-04
38	0.103554D-03	-0.915296D-05	0.239966D-04	-0.140234D-04	0.512290D-05
39	0.895631D-04	0.127954D-04	0.446052D-04	-0.238425D-04	0.318760D-04
40	0.862336D-04	-0.181951D-05	0.930219D-04	0.138391D-04	-0.114302D-04
41	0.734304D-04	0.284008D-04	0.401692D-04	0.236169D-04	-0.407042D-05
42	0.376817D-04	0.184797D-04	0.253109D-04	-0.176271D-04	0.107003D-05
43	0.895102D-04	-0.128234D-04	0.457902D-04	-0.121023D-04	0.175054D-04

44	0.738318D-04	0.646191D-05	0.392851D-04	-0.448641D-05	0.163275D-04
45	0.581696D-04	-0.103964D-05	0.599940D-04	0.630646D-05	0.666485D-04
46	0.262996D-02	-0.165794D-03	0.960917D-03	-0.534283D-03	0.103224D-02
47	-0.175915D-03	0.240875D-04	0.126973D-03	-0.111202D-03	0.153432D-03
48	-0.554583D-04	-0.241619D-04	-0.462385D-04	-0.268614D-03	-0.109614D-03
49	-0.118688D-03	0.117420D-03	-0.505447D-04	0.852725D-04	-0.246675D-03
50	-0.110000D-03	0.921233D-04	-0.104815D-03	-0.194544D-03	0.231334D-03
51	-0.625012D-04	0.373217D-04	0.731133D-04	-0.410769D-03	0.924560D-04
52	-0.102776D-03	-0.909980D-04	-0.950774D-04	-0.386888D-03	0.295136D-03
53	0.669033D-04	-0.292935D-04	-0.729049D-04	-0.218744D-03	-0.699417D-04
54	-0.117681D-03	0.468928D-04	-0.977972D-04	-0.736266D-04	0.181914D-03
55	-0.956541D-04	0.294799D-04	0.109788D-03	0.212295D-04	-0.532797D-03
56	0.176505D-04	-0.620974D-04	0.101302D-03	-0.118341D-03	-0.451275D-04
57	-0.111783D-03	-0.104987D-03	0.116421D-03	-0.290101D-03	0.231042D-03
58	0.795079D-02	-0.206562D-02	0.141771D-02	-0.346522D-02	-0.389563D-02
59	0.115844D-04	-0.607378D-06	-0.452622D-06	0.179175D-04	0.461527D-05
60	0.157013D-04	-0.156028D-05	-0.134134D-05	0.131011D-04	0.174124D-04
61	-0.194222D-04	-0.915180D-05	-0.143994D-05	0.141012D-04	-0.471675D-05
62	-0.415721D-04	0.127784D-04	-0.114451D-05	-0.151485D-04	0.230473D-04
63	0.373748D-04	-0.447870D-05	-0.551524D-05	-0.188554D-04	0.114186D-04
64	-0.248305D-05	0.126537D-05	-0.351269D-04	0.310305D-04	-0.223529D-04
65	0.144348D-04	-0.182953D-04	0.166291D-04	-0.398603D-04	-0.121517D-03
66	-0.195872D-04	-0.290975D-04	0.565124D-04	-0.517996D-04	-0.600900D-04
67	-0.338298D-04	-0.139766D-04	-0.441499D-04	0.555127D-06	-0.495470D-04
68	-0.341378D-05	-0.776183D-05	-0.726136D-05	0.700786D-05	0.167436D-04
69	0.205092D-04	-0.742823D-05	-0.238923D-05	-0.273966D-04	0.538093D-04
70	-0.139648D-04	0.940956D-05	0.453251D-05	0.141394D-04	0.151013D-05
71	-0.789180D-01	-0.451969D-01	0.390973D-01	-0.224980D-01	-0.181943D+00
72	0.559795D-04	-0.393085D-04	0.645986D-04	0.217696D-04	0.142785D-04
73	-0.296131D-04	0.150884D-04	0.494181D-05	-0.736121D-05	0.504940D-04
74	0.446104D-05	0.136583D-05	0.238419D-05	0.768324D-05	-0.892133D-05
75	0.100227D-06	-0.541336D-05	0.361518D-05	0.182777D-05	0.594444D-05
76	-0.265828D-04	0.232142D-04	0.128016D-04	-0.408229D-05	0.237881D-05
77	-0.521343D-05	0.376194D-05	0.176782D-05	0.251384D-05	0.348943D-05
78	0.139781D-04	-0.223237D-06	0.827207D-05	-0.313543D-06	-0.177269D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	26	27	28	29	30
26	0.490699D-04				
27	0.467496D-04	0.403289D-03			
28	-0.126187D-05	-0.422680D-05	0.405006D-04		
29	-0.285003D-05	-0.116803D-04	0.749486D-05	0.502407D-04	

30	0.183865D-05	0.416682D-05	-0.505961D-05	-0.191573D-04	0.199958D-03
31	-0.919437D-05	-0.926444D-05	0.126909D-05	0.120026D-04	-0.145938D-04
32	-0.191390D-04	-0.807872D-04	0.737889D-05	0.227307D-04	-0.244971D-04
33	0.437943D-05	0.148153D-04	-0.776621D-05	-0.345670D-04	0.613266D-04
34	-0.426255D-05	0.546370D-04	0.803747D-05	-0.246936D-05	-0.217888D-05
35	-0.442421D-04	-0.845556D-04	0.168595D-04	-0.105544D-04	0.893550D-04
36	-0.270916D-04	0.387893D-04	0.227299D-04	0.478663D-05	0.610570D-04
37	-0.290836D-04	0.324162D-04	-0.480323D-05	-0.654045D-05	-0.796234D-06
38	-0.340263D-04	0.482028D-04	-0.621527D-05	0.971879D-05	0.200243D-04
39	-0.429445D-04	-0.274690D-04	-0.682308D-05	0.114965D-04	0.639656D-04
40	-0.284521D-04	0.284497D-05	-0.465358D-04	-0.789476D-05	0.768742D-04
41	-0.178807D-04	0.316263D-04	-0.206358D-04	0.351713D-05	0.232936D-04
42	0.256355D-05	0.468894D-04	-0.253788D-04	0.296892D-05	0.372136D-04
43	-0.409858D-04	-0.192372D-04	-0.158642D-04	-0.202050D-04	0.102342D-03
44	-0.409022D-04	-0.574978D-04	0.788899D-05	-0.767819D-05	0.153211D-04
45	-0.306558D-04	0.586457D-04	-0.212454D-04	0.211437D-04	0.648758D-04
46	-0.186411D-02	-0.106789D-02	-0.175558D-03	-0.155483D-03	0.946911D-03
47	-0.680507D-04	0.150530D-03	-0.120242D-03	0.306374D-04	-0.197894D-04
48	-0.867332D-04	-0.281489D-03	-0.484626D-04	0.235902D-03	-0.224026D-03
49	0.568313D-04	0.139406D-03	0.108422D-04	0.679977D-04	-0.325963D-03
50	0.191012D-03	-0.121616D-03	0.483065D-04	0.313960D-03	-0.295443D-03
51	-0.744252D-05	-0.284006D-03	-0.364782D-04	0.110134D-03	-0.166678D-03
52	-0.333464D-04	-0.155700D-04	0.870828D-04	0.357689D-03	-0.553624D-03
53	-0.125021D-03	-0.213856D-03	-0.409330D-04	0.165602D-03	0.265433D-03
54	0.167635D-03	0.303616D-03	-0.149552D-03	-0.974772D-04	-0.961235D-04
55	-0.861295D-04	0.301008D-03	-0.155510D-03	0.153917D-03	-0.321278D-03
56	0.488578D-04	0.589516D-04	-0.918179D-04	0.106743D-03	-0.538447D-03
57	-0.566774D-04	-0.285569D-03	-0.223900D-03	0.774238D-04	-0.124219D-03
58	0.180655D-02	0.142174D-01	-0.617661D-03	0.371876D-02	-0.228555D-01
59	0.506780D-05	-0.378996D-04	0.629941D-05	-0.156454D-05	-0.333506D-04
60	-0.803981D-05	0.589564D-04	0.759830D-05	0.414346D-06	0.132106D-04
61	0.517109D-05	0.753481D-04	0.192710D-04	-0.313584D-04	-0.395119D-04
62	-0.254462D-04	-0.910800D-04	-0.250345D-04	0.361975D-04	0.530098D-04
63	0.281119D-04	-0.374087D-04	0.437959D-05	0.203226D-04	-0.785405D-04
64	-0.148922D-05	-0.199759D-04	0.150651D-05	0.438675D-05	0.557396D-04
65	-0.474890D-05	0.835294D-04	0.203061D-04	-0.418465D-05	0.119376D-03
66	-0.145288D-04	0.187715D-03	-0.170159D-04	-0.157047D-04	0.127984D-04
67	-0.309596D-04	0.240601D-04	0.195056D-04	0.306299D-04	-0.431014D-04
68	0.298062D-05	-0.246660D-04	0.815694D-05	-0.655396D-05	-0.366232D-04
69	-0.240040D-06	0.278384D-04	0.388419D-05	-0.275718D-04	-0.343404D-04
70	-0.595585D-05	-0.306783D-04	0.198409D-05	-0.116856D-04	-0.237323D-04
71	-0.107669D+00	-0.426449D-01	-0.117197D+00	-0.520007D-01	0.440175D-01
72	-0.607176D-04	-0.774255D-04	-0.114483D-04	-0.522418D-04	0.123081D-03
73	-0.453459D-05	0.501782D-04	-0.103101D-04	0.180466D-04	0.182865D-04

74	0.333070D-05	0.109025D-04	0.257447D-05	-0.280527D-05	0.120101D-04
75	-0.496037D-05	-0.362918D-05	-0.577933D-05	-0.103040D-04	0.447160D-06
76	-0.959382D-05	0.125883D-03	-0.924908D-05	-0.381986D-04	0.331370D-04
77	0.110806D-05	-0.340048D-05	0.792419D-06	-0.140795D-05	0.208786D-05
78	-0.585531D-05	0.110134D-04	-0.191641D-06	0.695397D-05	-0.120038D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391583D-04				
32	0.200851D-04	0.190383D-03			
33	-0.284334D-04	-0.658429D-04	0.287568D-03		
34	-0.230718D-05	-0.862452D-05	-0.254808D-04	0.525991D-02	
35	0.183229D-04	-0.187171D-04	0.153703D-04	0.289274D-02	0.199576D-01
36	0.508909D-05	-0.129722D-04	0.266561D-04	0.370080D-02	0.144550D-01
37	0.330305D-04	0.855228D-05	0.169032D-04	0.276141D-02	0.915916D-02
38	0.569658D-05	-0.363465D-04	0.336309D-04	0.341572D-02	0.129651D-01
39	0.150468D-04	0.200998D-04	0.731722D-04	0.367315D-02	0.136852D-01
40	0.844802D-05	-0.293315D-04	0.231222D-04	0.388602D-02	0.155719D-01
41	0.549147D-05	0.153029D-04	0.113616D-04	0.268073D-02	0.104283D-01
42	-0.236241D-04	0.363239D-04	-0.765940D-05	0.168956D-02	0.742255D-02
43	0.167885D-04	-0.211213D-04	0.401194D-04	0.384959D-02	0.141664D-01
44	0.755437D-05	0.222245D-04	0.419497D-04	0.353203D-02	0.136878D-01
45	0.227281D-04	-0.274580D-05	0.324203D-04	0.315770D-02	0.119295D-01
46	0.117884D-02	-0.154501D-02	-0.475210D-03	0.413957D-01	0.229314D+00
47	0.416105D-04	-0.174965D-03	0.143709D-03	0.179811D-02	0.147616D-02
48	0.182768D-03	-0.233181D-03	-0.214379D-03	0.756167D-03	0.286466D-02
49	-0.334948D-05	-0.752334D-04	-0.545783D-03	-0.996932D-03	-0.102867D-02
50	0.133372D-03	-0.298390D-03	-0.106756D-02	0.222392D-02	0.200150D-02
51	0.180398D-03	-0.722713D-04	-0.401964D-04	0.481736D-03	0.891982D-03
52	0.182746D-03	-0.240924D-03	-0.450068D-03	0.232196D-02	0.995599D-03
53	0.251536D-03	-0.397240D-03	-0.187504D-03	0.145080D-02	0.629436D-02
54	0.433765D-04	-0.429572D-03	0.218867D-04	0.784781D-03	-0.517864D-02
55	0.185894D-03	-0.198966D-03	-0.439405D-03	0.186637D-02	-0.366114D-02
56	0.144623D-03	-0.270468D-03	0.187176D-03	0.255624D-02	0.138047D-02
57	0.289488D-03	0.165835D-03	-0.318891D-03	0.899367D-03	-0.126353D-02
58	0.752610D-02	0.563057D-02	-0.314330D-01	0.102550D-01	-0.617419D-02
59	0.110299D-04	-0.282952D-04	-0.299501D-04	-0.125205D-03	-0.123657D-03
60	0.237699D-04	0.383652D-04	0.803777D-05	0.893858D-05	-0.411110D-03
61	0.752746D-05	0.756188D-07	0.504474D-04	-0.232077D-03	-0.287781D-03
62	-0.210371D-04	0.580140D-04	0.815981D-04	-0.557892D-04	-0.577633D-03
63	0.160551D-04	0.263868D-04	-0.162553D-04	0.258771D-03	0.520036D-04
64	-0.425693D-05	-0.468937D-05	0.435563D-04	-0.485645D-04	0.432701D-03

65	-0.212521D-04	0.431026D-04	0.352576D-04	0.684620D-03	0.645234D-03
66	-0.293103D-04	-0.156816D-04	-0.666026D-04	0.206641D-04	-0.139685D-03
67	0.106871D-04	-0.215518D-04	0.102971D-04	-0.511156D-03	-0.622547D-04
68	-0.428763D-05	-0.519649D-04	0.123574D-04	0.453714D-03	0.315372D-04
69	-0.100808D-04	0.980250D-06	0.242246D-04	-0.164900D-03	-0.195902D-03
70	-0.107765D-04	0.223127D-04	-0.566403D-04	-0.447160D-04	0.109440D-03
71	-0.449490D-01	0.161286D+00	-0.187171D+00	0.705366D-01	0.225710D+01
72	-0.320979D-04	0.539365D-05	0.155219D-03	-0.382433D-03	-0.156202D-03
73	-0.191757D-04	0.160458D-04	0.786761D-05	0.107098D-03	0.719171D-03
74	-0.429811D-05	0.196411D-05	0.648385D-05	-0.727411D-04	-0.289734D-04
75	0.476739D-05	-0.174112D-05	0.173551D-04	0.380296D-04	-0.339612D-05
76	-0.584533D-04	-0.867849D-05	-0.118578D-04	-0.119014D-03	0.701091D-03
77	-0.157869D-05	0.216663D-05	0.308320D-05	-0.246241D-04	0.340077D-04
78	0.486802D-05	-0.631429D-05	-0.863144D-05	0.354497D-03	0.178391D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.230061D-01				
37	0.113677D-01	0.239594D-01			
38	0.159084D-01	0.105607D-01	0.223033D-01		
39	0.164030D-01	0.107113D-01	0.144017D-01	0.230020D-01	
40	0.189083D-01	0.125697D-01	0.174944D-01	0.177797D-01	0.354230D-01
41	0.132455D-01	0.845356D-02	0.116890D-01	0.121017D-01	0.144046D-01
42	0.914441D-02	0.626614D-02	0.801406D-02	0.803644D-02	0.972499D-02
43	0.179747D-01	0.116020D-01	0.157564D-01	0.167024D-01	0.191401D-01
44	0.166391D-01	0.111007D-01	0.149518D-01	0.155013D-01	0.172695D-01
45	0.152600D-01	0.101385D-01	0.131364D-01	0.141265D-01	0.158857D-01
46	0.305171D+00	0.223837D+00	0.263909D+00	0.272113D+00	0.305445D+00
47	0.259478D-02	0.415707D-02	-0.222440D-02	0.387462D-02	0.644542D-03
48	0.218349D-02	0.921740D-04	-0.566817D-03	0.173258D-03	0.173366D-02
49	-0.326372D-02	-0.724436D-02	-0.261039D-02	-0.517277D-02	-0.498158D-03
50	0.966319D-03	0.109720D-02	-0.572365D-02	-0.114894D-02	-0.302289D-03
51	-0.140101D-02	-0.557720D-03	-0.324981D-02	-0.144934D-02	-0.155112D-02
52	-0.163919D-02	0.230220D-02	-0.306359D-02	-0.386327D-02	-0.341092D-02
53	0.295826D-02	0.283522D-02	0.848447D-03	0.366201D-02	0.159021D-02
54	-0.275020D-02	0.141176D-02	-0.440435D-02	-0.166595D-02	-0.285954D-02
55	-0.204229D-02	0.230576D-02	-0.397351D-02	-0.567156D-02	-0.535163D-02
56	0.203720D-02	0.369595D-02	-0.148413D-02	-0.156618D-02	-0.393215D-03
57	-0.137501D-02	-0.588430D-03	-0.319604D-02	-0.425793D-02	-0.270453D-02
58	-0.755378D-01	0.606469D-01	-0.137084D+00	-0.152599D+00	-0.322157D+00
59	-0.975659D-04	0.897198D-04	-0.681604D-06	0.155026D-03	0.147434D-03
60	-0.798213D-04	-0.726086D-04	0.723937D-04	-0.196027D-03	0.308105D-03



61	-0.732822D-04	-0.280977D-03	-0.484484D-03	-0.324974D-03	-0.289799D-03
62	-0.101751D-02	0.246459D-03	-0.378003D-03	-0.821348D-03	0.339991D-03
63	-0.236576D-03	0.634818D-03	0.100198D-02	-0.133960D-03	-0.545292D-03
64	0.395635D-03	0.316449D-03	0.212987D-03	0.801052D-03	0.808554D-03
65	0.155950D-02	0.878756D-03	0.793224D-03	0.165787D-02	0.107724D-02
66	0.643494D-04	0.141371D-03	0.277354D-03	0.353652D-03	0.102991D-02
67	0.336503D-03	0.310397D-03	0.254989D-03	0.572770D-03	-0.363245D-03
68	0.143339D-03	-0.826814D-03	-0.340800D-03	0.382281D-04	0.148289D-03
69	-0.358498D-03	-0.167405D-03	0.107598D-03	0.126791D-03	0.354881D-03
70	-0.179886D-03	-0.810374D-06	-0.148618D-03	-0.128658D-03	-0.702766D-03
71	0.740080D+00	0.131349D+01	0.504336D+00	0.186443D+01	0.523175D+00
72	-0.225363D-04	0.764466D-03	0.113559D-02	0.451790D-03	0.876723D-03
73	0.379438D-03	0.123201D-03	0.170267D-03	0.719342D-04	0.481369D-03
74	-0.345376D-04	-0.139773D-03	0.595223D-04	-0.512308D-04	-0.149313D-04
75	0.239942D-04	0.559414D-04	0.192274D-03	0.605661D-04	-0.585737D-04
76	0.459864D-03	-0.707010D-03	-0.496713D-04	0.207598D-03	0.366462D-03
77	0.930836D-05	-0.222189D-05	-0.101297D-04	0.319183D-05	0.486287D-04
78	0.197951D-02	0.110356D-02	0.239446D-02	0.190400D-02	0.212054D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.239168D-01				
42	0.611970D-02	0.187452D-01			
43	0.132009D-01	0.903126D-02	0.255864D-01		
44	0.123333D-01	0.811057D-02	0.167678D-01	0.228670D-01	
45	0.109500D-01	0.797917D-02	0.152623D-01	0.141787D-01	0.207858D-01
46	0.237364D+00	0.151466D+00	0.296386D+00	0.268106D+00	0.229416D+00
47	-0.121091D-02	-0.113667D-02	0.185139D-02	-0.272506D-03	0.263951D-02
48	-0.299747D-02	-0.105265D-02	0.364128D-02	0.483038D-03	0.898770D-03
49	-0.305404D-02	-0.193962D-02	-0.304469D-02	-0.369043D-02	-0.240425D-02
50	-0.252980D-02	0.154515D-02	0.284549D-02	-0.100254D-02	-0.545369D-03
51	-0.510498D-02	0.106857D-02	0.142827D-02	-0.139288D-02	-0.542679D-03
52	-0.473793D-02	0.104612D-02	-0.797608D-03	-0.533150D-02	-0.758846D-03
53	-0.436557D-02	0.665403D-03	0.226091D-02	0.162232D-02	-0.297549D-04
54	-0.163644D-02	-0.586714D-03	-0.132635D-02	-0.266671D-02	-0.291692D-02
55	-0.523225D-02	0.628046D-03	-0.399205D-02	-0.600611D-02	-0.142440D-02
56	-0.912834D-03	0.557145D-03	0.286563D-02	0.300572D-03	0.364455D-03
57	-0.240040D-02	-0.269279D-02	-0.790442D-03	-0.127965D-02	-0.280946D-02
58	-0.219893D+00	-0.938622D-01	-0.794577D-01	-0.130354D+00	-0.104807D+00
59	-0.245358D-04	0.872124D-04	-0.133923D-03	-0.291992D-03	0.364718D-04
60	-0.592537D-04	0.100212D-04	-0.225929D-03	-0.138418D-03	-0.939657D-04
61	0.339366D-03	-0.166663D-03	-0.212444D-03	-0.346880D-03	0.625623D-04

62	-0.945953D-03	0.199353D-03	-0.945455D-03	-0.489051D-03	-0.523649D-03
63	-0.246855D-03	0.609236D-03	0.630812D-03	0.260862D-03	0.213835D-03
64	0.600766D-03	0.196988D-03	0.731133D-03	0.403575D-03	0.556869D-03
65	0.947859D-03	0.623567D-03	0.874330D-03	0.157593D-02	0.687072D-03
66	0.556876D-03	0.887616D-03	0.107501D-02	0.260962D-03	0.510654D-03
67	0.309333D-03	-0.896429D-03	-0.376070D-04	-0.158419D-03	0.212075D-03
68	-0.385336D-03	0.402259D-04	0.395664D-03	0.143635D-03	0.149624D-03
69	-0.157613D-03	0.567035D-03	-0.108325D-03	-0.217400D-03	-0.159694D-03
70	-0.314241D-03	-0.194500D-03	-0.335902D-03	-0.494602D-03	-0.357105D-03
71	0.613759D+00	0.446076D+00	0.135316D+01	0.172509D+01	0.927015D+00
72	-0.397891D-03	0.492131D-05	-0.371877D-03	0.212278D-03	-0.256084D-03
73	0.175600D-03	-0.332218D-04	0.104706D-03	0.348119D-03	0.699848D-04
74	0.428270D-04	-0.856990D-04	-0.422128D-04	0.300798D-05	0.353600D-04
75	-0.180882D-04	-0.135399D-04	0.148508D-04	0.274329D-04	-0.280830D-04
76	0.142351D-03	-0.335369D-04	-0.190725D-03	0.165283D-03	0.922575D-04
77	0.299809D-04	-0.554836D-04	0.205269D-04	-0.641095D-05	0.247964D-04
78	0.147894D-02	0.831159D-03	0.196477D-02	0.189778D-02	0.159857D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.308396D+02				
47	-0.210505D+00	0.599998D+00			
48	-0.118725D+00	0.445773D+00	0.680159D+00		
49	-0.233978D+00	0.300974D+00	0.333476D+00	0.709452D+00	
50	0.763613D-02	0.376451D+00	0.464494D+00	0.323916D+00	0.927156D+00
51	-0.117962D+00	0.396082D+00	0.476431D+00	0.317117D+00	0.413608D+00
52	-0.178618D+00	0.479577D+00	0.559306D+00	0.352268D+00	0.481544D+00
53	-0.185908D-01	0.318410D+00	0.389727D+00	0.244396D+00	0.328358D+00
54	-0.882826D-01	0.216984D+00	0.277452D+00	0.149275D+00	0.248689D+00
55	-0.196584D+00	0.426841D+00	0.510132D+00	0.346439D+00	0.448433D+00
56	-0.222067D+00	0.414831D+00	0.485558D+00	0.305775D+00	0.418671D+00
57	-0.153223D+00	0.341265D+00	0.430754D+00	0.284377D+00	0.376220D+00
58	-0.132051D+02	0.925166D+01	0.106801D+02	0.747762D+01	0.934315D+01
59	0.813548D-03	-0.100479D-02	-0.173570D-02	-0.154939D-02	-0.320628D-02
60	0.144696D-01	-0.600019D-02	-0.331067D-03	0.263739D-03	-0.363883D-02
61	-0.154168D-01	-0.679722D-03	-0.641958D-02	0.774657D-03	-0.157971D-02
62	-0.211241D-03	-0.387579D-02	-0.348956D-02	-0.129042D-01	-0.830878D-02
63	-0.167181D-02	-0.491106D-03	-0.177346D-02	-0.845806D-03	-0.761622D-02
64	-0.840060D-02	0.226922D-02	0.369676D-02	-0.390537D-02	0.212377D-03
65	0.751198D-02	-0.479064D-02	-0.287553D-02	-0.342244D-02	0.324591D-02
66	0.843726D-02	0.267668D-02	-0.727948D-03	-0.241159D-02	-0.566371D-02
67	0.707920D-02	0.610371D-02	-0.920636D-03	-0.787195D-03	0.174446D-02

68	-0.882716D-02	0.857596D-03	0.422408D-02	0.579333D-03	-0.279093D-03
69	-0.755340D-02	-0.283257D-02	-0.316207D-02	-0.219380D-02	-0.135880D-02
70	-0.111313D-01	0.177678D-02	0.564302D-02	0.183686D-02	0.390060D-02
71	-0.534809D+02	-0.383230D+00	-0.127198D+00	-0.455154D+01	0.440796D+01
72	0.713455D-01	-0.448292D-01	-0.505269D-01	-0.377078D-01	-0.103889D+00
73	0.177280D-01	-0.453321D-02	-0.597668D-02	-0.154849D-02	-0.416919D-02
74	0.539479D-02	-0.856622D-02	-0.995133D-02	-0.666593D-02	-0.905590D-02
75	-0.464317D-02	0.498524D-03	0.242751D-03	-0.136094D-03	-0.156027D-01
76	-0.167877D-02	-0.354748D-02	-0.318376D-02	-0.258628D-02	-0.122145D-02
77	-0.106679D-02	-0.210988D-03	-0.371308D-03	-0.303233D-03	-0.470603D-03
78	0.300955D-01	-0.732222D-03	0.121156D-03	-0.848048D-03	0.571912D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.665977D+00				
52	0.489382D+00	0.992750D+00			
53	0.352613D+00	0.401095D+00	0.667457D+00		
54	0.270421D+00	0.292899D+00	0.219206D+00	0.537367D+00	
55	0.469388D+00	0.538606D+00	0.367491D+00	0.274699D+00	0.706045D+00
56	0.434769D+00	0.497053D+00	0.353048D+00	0.242504D+00	0.479645D+00
57	0.407755D+00	0.436522D+00	0.302728D+00	0.222125D+00	0.423503D+00
58	0.101335D+02	0.111011D+02	0.909043D+01	0.613900D+01	0.101654D+02
59	-0.225797D-02	-0.128708D-02	-0.196189D-02	-0.180718D-02	-0.264643D-02
60	0.790752D-03	-0.271419D-02	0.113525D-02	0.316685D-02	-0.555499D-04
61	0.124788D-02	-0.995298D-03	-0.290909D-02	-0.258776D-02	0.242720D-02
62	-0.644769D-02	-0.512611D-02	-0.216418D-02	0.925327D-03	-0.784106D-02
63	-0.467342D-02	-0.124544D-02	-0.201217D-02	-0.189982D-02	-0.394931D-02
64	-0.508973D-02	0.118407D-02	0.816947D-03	0.951088D-03	-0.183765D-04
65	-0.127206D-02	-0.132331D-01	-0.363572D-02	-0.260872D-02	0.234238D-02
66	0.251234D-03	0.441771D-02	-0.114425D-01	-0.407228D-02	0.161917D-03
67	-0.520186D-03	-0.358942D-02	0.391353D-03	-0.844948D-02	0.161318D-02
68	0.677521D-03	0.294340D-02	0.249796D-02	0.283469D-02	-0.808761D-02
69	0.210553D-02	-0.147359D-02	-0.308281D-02	-0.245452D-03	-0.221831D-02
70	-0.101024D-02	0.470191D-02	0.334422D-02	0.321521D-02	-0.137300D-02
71	-0.106551D+02	-0.222021D+00	0.647152D+01	-0.792247D+01	-0.110788D+01
72	-0.464242D-01	-0.474543D-01	-0.316973D-01	-0.293517D-01	-0.523261D-01
73	-0.357926D-02	-0.653798D-02	-0.506635D-02	-0.448868D-02	-0.499589D-02
74	-0.908256D-02	-0.105311D-01	-0.700247D-02	-0.540032D-02	-0.971570D-02
75	0.851903D-03	-0.142369D-04	0.696162D-03	-0.279030D-03	0.177196D-03
76	-0.427680D-03	-0.339792D-02	-0.118286D-04	-0.448835D-02	-0.910690D-03
77	-0.988312D-04	-0.430898D-03	-0.422866D-03	-0.557535D-03	-0.278456D-03
78	-0.588879D-03	-0.178504D-03	0.185961D-03	-0.827816D-03	-0.996463D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	0.663612D+00				
57	0.395615D+00	0.593285D+00			
58	0.101443D+02	0.833405D+01	0.100649D+04		
59	-0.189798D-02	-0.308548D-02	-0.256343D-01	0.272710D-02	
60	-0.304935D-02	0.156183D-03	0.754412D-01	-0.134604D-03	0.101180D-01
61	-0.379863D-03	0.267571D-02	-0.136945D+00	-0.810430D-04	0.154240D-03
62	-0.625767D-02	-0.426183D-02	-0.417016D+00	0.107571D-04	0.615074D-04
63	-0.344773D-02	-0.397551D-02	0.135195D+00	0.216073D-03	-0.179308D-04
64	0.431378D-02	-0.323429D-02	0.203808D-01	0.464876D-03	0.779831D-04
65	0.336081D-02	0.497728D-05	-0.155187D+00	-0.596931D-03	-0.506716D-04
66	-0.852500D-05	-0.189841D-02	-0.181318D+00	-0.273443D-03	-0.424506D-03
67	0.151145D-02	0.280017D-02	-0.579967D-01	-0.204759D-03	-0.336238D-03
68	-0.997898D-03	-0.449478D-02	0.211760D+00	0.105541D-03	-0.358089D-03
69	-0.796720D-02	-0.635448D-03	0.127997D+00	0.975479D-04	0.414006D-03
70	0.750304D-03	-0.291938D-02	0.128955D+00	0.265313D-03	-0.708316D-03
71	0.156420D+01	-0.570076D+01	-0.245581D+03	-0.447536D+00	0.168181D+01
72	-0.481715D-01	-0.387526D-01	-0.124382D+01	0.129508D-03	0.541914D-04
73	-0.537181D-02	-0.147713D-02	-0.195282D+00	-0.775672D-04	0.108459D-03
74	-0.913110D-02	-0.779920D-02	-0.208356D+00	0.619051D-04	0.244701D-04
75	0.653278D-03	0.726811D-03	0.268414D-02	0.333827D-04	0.610853D-05
76	-0.107073D-02	-0.970181D-03	-0.220681D+00	-0.196712D-03	0.270516D-04
77	-0.451922D-03	-0.204196D-03	-0.159369D-01	-0.105488D-04	0.189586D-04
78	-0.107917D-02	-0.229231D-03	-0.881522D-01	-0.394913D-04	0.174097D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	0.608101D-02				
62	-0.932403D-03	0.338254D-01			
63	-0.829083D-04	0.815459D-03	0.172338D-01		
64	-0.783889D-03	0.854539D-03	-0.159570D-03	0.982806D-02	
65	0.107319D-02	0.794982D-03	-0.123312D-02	-0.205368D-03	0.342293D-01
66	0.806050D-03	-0.508598D-03	0.137685D-02	-0.104452D-02	0.689153D-03
67	0.948296D-04	0.122544D-03	-0.745777D-03	-0.681301D-04	0.118672D-02
68	-0.100205D-02	-0.315762D-04	-0.212533D-03	0.131305D-03	-0.103478D-02
69	0.409560D-03	-0.324648D-03	0.125893D-03	-0.707139D-03	-0.703795D-03
70	-0.980215D-03	0.186246D-03	0.505521D-03	0.462185D-03	-0.125673D-02
71	-0.941987D+00	-0.337067D+00	-0.134553D+01	0.104001D+01	0.174138D+01

72	-0.738568D-03	0.136853D-02	-0.111350D-03	0.652210D-04	-0.162970D-02
73	0.421695D-03	-0.606472D-03	-0.326394D-02	-0.343373D-03	0.165325D-04
74	-0.197476D-05	0.846859D-04	-0.123279D-05	-0.588520D-04	0.672610D-04
75	-0.716559D-04	0.117539D-03	0.128907D-03	-0.100708D-03	-0.142923D-03
76	0.222006D-03	-0.110960D-02	-0.101139D-01	-0.228180D-03	0.112449D-02
77	-0.161936D-04	0.479037D-04	-0.334853D-04	-0.226772D-04	0.853629D-05
78	-0.995048D-04	0.352475D-03	-0.648001D-04	0.694134D-04	-0.207851D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.263609D-01				
67	0.184996D-02	0.241011D-01			
68	-0.761932D-03	-0.215611D-03	0.922750D-02		
69	0.134012D-03	-0.194480D-03	-0.465326D-04	0.929036D-02	
70	-0.541567D-03	-0.620360D-03	0.133533D-02	-0.617986D-03	0.992161D-02
71	0.214543D+01	0.114045D+01	-0.136249D+01	-0.958272D+00	0.634813D+00
72	0.112793D-02	-0.880521D-03	0.109658D-02	0.505677D-04	0.719580D-03
73	0.838046D-04	0.790281D-03	-0.332358D-03	0.178252D-03	-0.159894D-03
74	-0.298425D-04	-0.571889D-04	-0.333564D-04	-0.658226D-05	-0.494988D-04
75	0.106260D-03	-0.205128D-04	0.105628D-03	0.216968D-04	-0.103474D-03
76	-0.375967D-03	0.791095D-03	0.116984D-03	-0.209897D-03	-0.990422D-04
77	-0.533557D-04	0.217936D-04	-0.141806D-04	0.267825D-04	0.349662D-04
78	0.734553D-05	-0.132021D-03	-0.574993D-04	0.261900D-05	0.638997D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.966636D+05				
72	-0.129182D+01	0.521780D-01			
73	0.716983D-02	-0.304566D-03	0.124260D-01		
74	-0.208165D+00	0.103789D-02	0.736510D-04	0.335560D-03	
75	-0.164720D-01	0.220656D-02	0.656498D-04	0.396424D-05	0.993173D-03
76	0.136302D+01	0.475278D-03	0.357717D-02	0.131565D-03	-0.113489D-03
77	0.853804D-01	-0.132158D-03	0.191366D-03	0.876049D-05	0.538012D-05
78	0.169218D+00	0.508574D-03	-0.220572D-03	0.224775D-04	0.100910D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	0.153021D-01		

77 0.546681D-04 0.957628D-04  
78 0.114875D-03 0.538295D-04 0.161346D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.194	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.067	-0.164	0.182	-0.177	-0.227
7	0.015	0.002	0.004	-0.014	-0.032
8	0.025	-0.014	-0.010	-0.017	-0.051
9	0.020	0.035	0.011	0.037	0.006
10	0.000	0.036	0.026	0.036	0.019
11	0.022	0.013	0.001	0.003	0.044
12	-0.020	-0.012	-0.010	-0.036	0.040
13	0.015	0.021	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.007	0.010	-0.040	0.021	0.020
16	-0.040	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.000	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.015	0.027	0.009
23	-0.009	0.013	-0.020	0.009	-0.028
24	0.012	-0.014	0.022	-0.033	0.007
25	-0.043	0.049	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.016	0.002	0.002	0.001
29	-0.042	-0.023	0.028	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.040	-0.023	0.017	-0.010	0.032
35	-0.028	0.003	0.021	0.012	0.018
36	0.007	0.012	0.017	0.033	0.042
37	0.012	-0.028	0.017	-0.005	0.025

38	-0.011	0.003	0.032	0.047	-0.001
39	-0.014	0.002	-0.026	0.021	0.022
40	0.033	0.006	0.010	0.029	0.013
41	-0.019	0.033	-0.005	0.025	0.019
42	0.046	-0.030	0.055	0.000	0.009
43	0.028	0.021	0.015	0.038	0.048
44	-0.018	0.006	0.002	0.028	0.045
45	0.005	0.004	-0.002	0.014	0.042
46	-0.001	0.017	0.004	0.041	0.029
47	0.022	0.019	-0.015	0.002	0.019
48	0.033	0.034	-0.010	0.030	-0.003
49	0.003	0.027	0.007	-0.001	0.030
50	0.002	-0.001	-0.020	0.004	0.007
51	0.015	0.036	-0.044	0.049	0.012
52	0.033	0.014	-0.001	-0.009	-0.010
53	0.003	0.018	-0.028	-0.002	-0.021
54	0.044	0.059	-0.042	0.015	0.016
55	0.045	0.010	-0.010	-0.015	0.008
56	0.073	0.057	-0.020	0.030	0.009
57	0.028	0.051	-0.038	-0.001	0.009
58	-0.003	0.027	-0.036	0.044	0.020
59	-0.019	0.019	0.049	0.006	-0.055
60	0.034	0.043	-0.049	0.018	0.042
61	0.017	-0.001	-0.024	-0.039	-0.021
62	0.007	0.054	0.000	0.007	-0.005
63	0.016	-0.021	0.034	-0.010	0.000
64	0.084	0.035	0.016	-0.015	-0.001
65	0.002	-0.006	0.007	0.009	0.020
66	0.063	-0.014	0.001	0.005	-0.041
67	-0.009	-0.023	-0.029	-0.006	-0.033
68	-0.007	0.014	0.014	-0.004	-0.015
69	-0.014	-0.007	-0.023	-0.008	0.027
70	-0.035	-0.029	0.051	-0.022	-0.013
71	-0.001	0.031	-0.020	0.048	0.027
72	0.026	0.023	0.008	0.009	-0.027
73	0.022	0.067	0.001	0.008	0.003
74	-0.015	-0.026	0.005	0.019	0.004
75	0.012	0.049	0.012	0.010	-0.010
76	0.022	0.002	-0.020	0.009	0.007
77	-0.022	-0.028	0.030	0.013	0.041
78	0.010	-0.009	-0.012	0.005	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.024	1.000			
8	-0.043	-0.116	1.000		
9	-0.044	0.022	0.118	1.000	
10	0.008	-0.039	-0.144	0.013	1.000
11	-0.035	-0.004	-0.139	0.023	-0.171
12	0.035	0.018	0.149	-0.150	0.060
13	0.000	0.028	0.009	-0.021	-0.002
14	0.000	0.007	-0.032	-0.044	0.059
15	-0.028	-0.028	-0.014	-0.027	0.034
16	-0.017	-0.021	0.025	0.009	0.006
17	-0.011	0.012	-0.015	-0.004	0.011
18	-0.013	-0.014	-0.021	-0.041	-0.019
19	0.019	-0.038	0.019	0.008	0.026
20	0.012	0.003	-0.010	0.002	0.036
21	-0.015	0.020	-0.007	0.021	-0.034
22	-0.046	0.016	0.003	-0.007	0.004
23	-0.014	0.003	0.063	0.014	0.034
24	0.022	-0.007	-0.007	-0.032	0.026
25	0.009	-0.031	-0.013	0.006	0.022
26	-0.036	0.008	-0.018	0.002	-0.010
27	0.004	-0.015	-0.011	0.015	0.033
28	0.013	0.052	-0.037	-0.013	-0.019
29	0.035	0.035	-0.053	0.005	0.023
30	-0.006	-0.027	-0.014	-0.011	-0.025
31	0.038	0.007	0.001	0.004	0.012
32	0.011	0.038	0.002	0.038	-0.002
33	-0.006	0.007	-0.017	0.011	-0.010
34	0.020	-0.012	0.012	-0.043	-0.021
35	0.031	-0.021	0.039	0.010	-0.003
36	0.019	-0.011	0.041	0.055	0.009
37	0.044	-0.056	0.038	0.022	-0.001
38	0.025	0.038	0.000	0.043	-0.010
39	0.047	-0.004	0.023	0.043	-0.008
40	0.014	-0.027	0.049	0.009	0.002
41	0.001	-0.045	0.028	0.035	-0.005
42	-0.032	-0.018	0.009	0.014	0.008
43	0.005	-0.023	0.058	0.035	-0.002
44	0.018	-0.014	0.036	0.036	-0.007
45	0.013	-0.052	0.048	0.040	-0.015
46	-0.003	-0.009	0.020	0.016	0.035
47	0.006	-0.029	0.043	-0.002	-0.002



48	0.008	-0.030	0.035	-0.016	0.045
49	-0.008	0.030	0.038	-0.023	-0.001
50	-0.004	-0.001	0.040	0.019	0.025
51	0.011	-0.040	0.029	0.000	0.007
52	0.008	0.008	0.026	-0.019	0.008
53	0.003	-0.011	0.019	-0.041	0.009
54	0.001	0.020	-0.008	-0.036	0.050
55	0.008	-0.019	0.014	0.013	0.028
56	-0.001	-0.019	0.042	0.004	-0.008
57	0.020	-0.039	0.027	-0.004	0.043
58	0.008	-0.045	0.038	-0.001	0.005
59	0.040	0.010	0.023	0.028	0.020
60	-0.024	0.027	0.006	-0.039	0.000
61	0.051	0.006	-0.001	0.031	-0.006
62	-0.014	0.022	-0.013	0.016	0.004
63	-0.002	0.006	-0.024	0.005	0.033
64	0.028	0.033	0.021	0.007	-0.013
65	-0.006	-0.018	-0.014	0.024	0.008
66	0.020	-0.003	0.035	-0.026	-0.036
67	0.005	-0.027	0.011	-0.011	-0.027
68	0.043	-0.029	0.015	-0.047	0.003
69	-0.012	-0.014	0.003	0.042	-0.020
70	-0.015	0.057	-0.005	0.025	-0.006
71	-0.029	0.003	0.009	-0.025	-0.016
72	0.020	0.021	-0.051	-0.070	-0.015
73	0.010	0.020	0.018	0.034	-0.002
74	-0.026	0.019	-0.032	0.016	-0.023
75	-0.008	-0.041	0.005	-0.055	-0.008
76	0.008	0.022	0.015	0.014	-0.037
77	0.013	-0.020	-0.046	0.053	0.016
78	0.009	0.378	0.031	0.008	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.181	1.000			
13	-0.026	0.006	1.000		
14	-0.005	0.018	0.242	1.000	
15	0.004	-0.005	0.016	0.273	1.000
16	0.001	0.032	-0.129	-0.192	-0.068
17	-0.011	0.016	-0.013	-0.110	-0.261
18	0.014	0.003	0.006	0.014	0.065

19	-0.016	-0.004	0.064	0.243	0.060
20	-0.016	-0.027	-0.006	0.076	0.310
21	-0.007	-0.011	-0.021	-0.032	-0.022
22	0.033	0.033	0.019	-0.004	0.042
23	-0.054	-0.009	0.141	0.191	0.100
24	-0.015	0.013	0.023	0.133	0.231
25	0.020	-0.035	-0.029	-0.021	-0.042
26	-0.013	-0.031	0.027	0.067	0.037
27	-0.045	0.014	0.000	0.063	0.063
28	0.015	0.026	-0.086	-0.228	-0.065
29	-0.004	-0.032	-0.045	-0.121	-0.290
30	-0.004	-0.008	0.034	0.042	0.034
31	0.024	0.011	-0.033	-0.010	-0.065
32	0.062	0.005	-0.037	-0.047	-0.064
33	-0.034	0.008	0.071	0.035	-0.013
34	-0.006	-0.005	-0.002	-0.010	-0.014
35	0.010	0.048	0.003	0.006	-0.036
36	-0.002	0.028	0.014	-0.027	-0.010
37	0.011	0.027	-0.016	-0.007	0.002
38	-0.006	0.004	-0.017	0.012	-0.021
39	0.047	0.046	-0.014	-0.014	-0.010
40	0.008	0.025	0.004	-0.022	-0.041
41	0.035	0.044	0.035	-0.001	0.013
42	0.058	0.036	-0.018	-0.017	-0.019
43	0.025	0.034	0.005	-0.002	0.006
44	0.005	0.004	-0.002	-0.022	-0.023
45	0.015	0.042	-0.029	0.001	-0.014
46	-0.046	0.025	0.005	-0.023	0.018
47	-0.001	0.023	0.004	-0.039	0.021
48	-0.014	0.055	0.002	-0.041	0.001
49	-0.016	0.041	-0.005	-0.020	0.018
50	-0.002	-0.009	-0.004	-0.029	0.018
51	-0.008	0.024	-0.022	-0.046	0.000
52	-0.018	0.022	-0.014	-0.018	-0.003
53	0.008	0.025	-0.017	-0.052	-0.013
54	0.002	0.028	-0.016	0.008	0.024
55	-0.008	0.034	0.013	-0.019	-0.002
56	0.012	0.021	0.019	-0.022	0.001
57	-0.026	0.025	0.036	-0.007	0.006
58	-0.014	0.008	0.018	-0.008	-0.022
59	0.005	0.045	-0.015	-0.005	0.005
60	-0.003	0.053	-0.010	-0.043	-0.032
61	-0.009	-0.031	-0.007	-0.017	-0.064
62	-0.055	-0.037	-0.017	-0.008	-0.031

63	0.044	0.023	0.000	0.020	-0.006
64	0.032	0.003	0.003	0.010	-0.028
65	0.002	0.005	0.023	-0.033	-0.047
66	0.026	0.039	-0.012	0.013	0.041
67	-0.003	0.030	-0.022	-0.008	0.006
68	-0.032	0.014	-0.003	-0.013	0.010
69	-0.002	-0.006	-0.031	0.003	0.015
70	0.076	0.018	0.005	0.011	0.053
71	0.013	-0.014	0.039	-0.027	-0.056
72	-0.035	-0.038	-0.020	0.026	-0.014
73	0.009	0.009	0.042	0.016	-0.020
74	-0.002	-0.041	-0.001	0.029	0.021
75	-0.023	0.029	-0.003	-0.006	-0.031
76	-0.004	-0.028	0.040	-0.041	0.014
77	0.055	-0.013	0.007	-0.011	0.064
78	-0.042	-0.025	-0.004	0.024	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.013	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.045	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.008	-0.179	-0.048
29	0.060	0.232	-0.063	-0.053	-0.215
30	-0.092	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.026	0.023
34	0.051	-0.013	-0.036	0.001	0.005
35	0.026	0.018	0.024	0.013	-0.018
36	0.041	0.004	0.041	0.006	0.023
37	0.027	0.016	-0.020	0.016	-0.027
38	0.033	0.034	0.031	0.028	-0.004

39	0.046	0.033	0.003	0.034	-0.012
40	0.026	0.031	-0.004	0.021	-0.015
41	0.026	-0.016	-0.014	-0.001	0.013
42	-0.040	0.027	-0.001	0.049	0.003
43	0.039	-0.001	-0.007	0.036	-0.012
44	0.055	0.023	-0.008	0.019	-0.002
45	0.026	-0.020	0.001	0.040	-0.001
46	0.018	-0.018	-0.039	-0.053	0.023
47	0.004	0.027	-0.022	-0.025	-0.034
48	-0.016	0.007	-0.016	-0.016	-0.033
49	0.009	0.017	-0.019	-0.015	-0.026
50	-0.011	0.001	-0.017	0.024	-0.007
51	-0.008	0.008	-0.010	-0.008	-0.015
52	-0.007	0.017	-0.015	-0.017	-0.028
53	-0.025	0.017	-0.007	-0.017	-0.029
54	-0.024	-0.033	-0.020	-0.033	0.001
55	-0.035	0.019	-0.021	-0.007	-0.002
56	-0.018	0.024	0.020	-0.034	-0.048
57	-0.023	0.009	-0.005	0.004	-0.039
58	-0.017	0.040	-0.055	-0.035	-0.033
59	0.000	-0.048	-0.009	-0.032	-0.009
60	0.022	-0.014	0.021	-0.009	-0.020
61	-0.006	-0.001	0.016	-0.001	-0.011
62	0.000	-0.002	0.004	0.008	0.000
63	0.027	0.072	-0.049	-0.011	-0.018
64	0.047	-0.007	0.023	0.028	-0.006
65	0.002	0.035	-0.023	-0.039	-0.059
66	-0.011	-0.005	-0.026	0.041	-0.020
67	-0.019	-0.004	-0.002	-0.010	-0.047
68	0.035	0.000	-0.043	0.011	-0.007
69	0.021	0.073	-0.011	0.000	-0.030
70	0.031	-0.026	-0.005	0.000	0.016
71	-0.053	-0.011	0.005	0.045	-0.015
72	0.014	-0.012	0.039	-0.015	-0.021
73	-0.011	-0.026	0.055	0.004	0.019
74	0.018	-0.022	0.029	0.020	0.036
75	-0.005	0.023	-0.005	-0.006	-0.002
76	-0.001	-0.044	0.039	-0.008	0.027
77	-0.017	-0.012	0.034	0.052	0.136
78	-0.038	-0.009	0.029	0.011	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

21

22

23

24

25

21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.054	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.041	0.031	0.021	0.022	0.015
35	0.062	0.000	0.034	0.011	-0.014
36	0.055	0.026	0.032	-0.003	0.011
37	0.060	0.004	0.042	-0.009	0.024
38	0.096	-0.013	0.024	-0.012	0.002
39	0.082	0.017	0.044	-0.021	0.014
40	0.064	-0.002	0.074	0.010	-0.004
41	0.066	0.038	0.039	0.020	-0.002
42	0.038	0.028	0.028	-0.017	0.001
43	0.078	-0.017	0.043	-0.010	0.008
44	0.068	0.009	0.039	-0.004	0.007
45	0.056	-0.001	0.063	0.006	0.032
46	0.066	-0.006	0.026	-0.013	0.013
47	-0.032	0.006	0.025	-0.019	0.014
48	-0.009	-0.006	-0.008	-0.043	-0.009
49	-0.020	0.029	-0.009	0.013	-0.020
50	-0.016	0.020	-0.016	-0.027	0.016
51	-0.011	0.009	0.013	-0.066	0.008
52	-0.014	-0.019	-0.014	-0.051	0.020
53	0.011	-0.007	-0.013	-0.035	-0.006
54	-0.022	0.013	-0.020	-0.013	0.017
55	-0.016	0.007	0.020	0.003	-0.043
56	0.003	-0.016	0.019	-0.019	-0.004
57	-0.020	-0.028	0.023	-0.050	0.021
58	0.035	-0.013	0.007	-0.014	-0.008
59	0.031	-0.002	-0.001	0.045	0.006
60	0.022	-0.003	-0.002	0.017	0.012
61	-0.035	-0.024	-0.003	0.024	-0.004
62	-0.031	0.014	-0.001	-0.011	0.009
63	0.040	-0.007	-0.006	-0.019	0.006

64	-0.003	0.003	-0.053	0.041	-0.015
65	0.011	-0.020	0.014	-0.028	-0.045
66	-0.017	-0.037	0.052	-0.042	-0.025
67	-0.030	-0.019	-0.043	0.000	-0.022
68	-0.005	-0.017	-0.011	0.010	0.012
69	0.030	-0.016	-0.004	-0.037	0.038
70	-0.019	0.019	0.007	0.019	0.001
71	-0.035	-0.030	0.019	-0.010	-0.040
72	0.034	-0.035	0.043	0.013	0.004
73	-0.037	0.028	0.007	-0.009	0.031
74	0.034	0.015	0.020	0.055	-0.033
75	0.000	-0.035	0.017	0.008	0.013
76	-0.030	0.039	0.016	-0.004	0.001
77	-0.074	0.079	0.027	0.034	0.024
78	0.048	-0.001	0.031	-0.001	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.044	-0.072	-0.288	0.256
34	-0.008	0.038	0.017	-0.005	-0.002
35	-0.045	-0.030	0.019	-0.011	0.045
36	-0.025	0.013	0.024	0.004	0.028
37	-0.027	0.010	-0.005	-0.006	0.000
38	-0.033	0.016	-0.007	0.009	0.009
39	-0.040	-0.009	-0.007	0.011	0.030
40	-0.022	0.001	-0.039	-0.006	0.029
41	-0.017	0.010	-0.021	0.003	0.011
42	0.003	0.017	-0.029	0.003	0.019
43	-0.037	-0.006	-0.016	-0.018	0.045
44	-0.039	-0.019	0.008	-0.007	0.007
45	-0.030	0.020	-0.023	0.021	0.032
46	-0.048	-0.010	-0.005	-0.004	0.012
47	-0.013	0.010	-0.024	0.006	-0.002
48	-0.015	-0.017	-0.009	0.040	-0.019
49	0.010	0.008	0.002	0.011	-0.027

50	0.028	-0.006	0.008	0.046	-0.022
51	-0.001	-0.017	-0.007	0.019	-0.014
52	-0.005	-0.001	0.014	0.051	-0.039
53	-0.022	-0.013	-0.008	0.029	0.023
54	0.033	0.021	-0.032	-0.019	-0.009
55	-0.015	0.018	-0.029	0.026	-0.027
56	0.009	0.004	-0.018	0.018	-0.047
57	-0.011	-0.018	-0.046	0.014	-0.011
58	0.008	0.022	-0.003	0.017	-0.051
59	0.014	-0.036	0.019	-0.004	-0.045
60	-0.011	0.029	0.012	0.001	0.009
61	0.009	0.048	0.039	-0.057	-0.036
62	-0.020	-0.025	-0.021	0.028	0.020
63	0.031	-0.014	0.005	0.022	-0.042
64	-0.002	-0.010	0.002	0.006	0.040
65	-0.004	0.022	0.017	-0.003	0.046
66	-0.013	0.058	-0.016	-0.014	0.006
67	-0.028	0.008	0.020	0.028	-0.020
68	0.004	-0.013	0.013	-0.010	-0.027
69	0.000	0.014	0.006	-0.040	-0.025
70	-0.009	-0.015	0.003	-0.017	-0.017
71	-0.049	-0.007	-0.059	-0.024	0.010
72	-0.038	-0.017	-0.008	-0.032	0.038
73	-0.006	0.022	-0.015	0.023	0.012
74	0.026	0.030	0.022	-0.022	0.046
75	-0.022	-0.006	-0.029	-0.046	0.001
76	-0.011	0.051	-0.012	-0.044	0.019
77	0.016	-0.017	0.013	-0.020	0.015
78	-0.021	0.014	-0.001	0.024	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.005	-0.009	-0.021	1.000	
35	0.021	-0.010	0.006	0.282	1.000
36	0.005	-0.006	0.010	0.336	0.675
37	0.034	0.004	0.006	0.246	0.419
38	0.006	-0.018	0.013	0.315	0.615
39	0.016	0.010	0.028	0.334	0.639
40	0.007	-0.011	0.007	0.285	0.586

41	0.006	0.007	0.004	0.239	0.477
42	-0.028	0.019	-0.003	0.170	0.384
43	0.017	-0.010	0.015	0.332	0.627
44	0.008	0.011	0.016	0.322	0.641
45	0.025	-0.001	0.013	0.302	0.586
46	0.034	-0.020	-0.005	0.103	0.292
47	0.009	-0.016	0.011	0.032	0.013
48	0.035	-0.020	-0.015	0.013	0.025
49	-0.001	-0.006	-0.038	-0.016	-0.009
50	0.022	-0.022	-0.065	0.032	0.015
51	0.035	-0.006	-0.003	0.008	0.008
52	0.029	-0.018	-0.027	0.032	0.007
53	0.049	-0.035	-0.014	0.024	0.055
54	0.009	-0.042	0.002	0.015	-0.050
55	0.035	-0.017	-0.031	0.031	-0.031
56	0.028	-0.024	0.014	0.043	0.012
57	0.060	0.016	-0.024	0.016	-0.012
58	0.038	0.013	-0.058	0.004	-0.001
59	0.034	-0.039	-0.034	-0.033	-0.017
60	0.038	0.028	0.005	0.001	-0.029
61	0.015	0.000	0.038	-0.041	-0.026
62	-0.018	0.023	0.026	-0.004	-0.022
63	0.020	0.015	-0.007	0.027	0.003
64	-0.007	-0.003	0.026	-0.007	0.031
65	-0.018	0.017	0.011	0.051	0.025
66	-0.029	-0.007	-0.024	0.002	-0.006
67	0.011	-0.010	0.004	-0.045	-0.003
68	-0.007	-0.039	0.008	0.065	0.002
69	-0.017	0.001	0.015	-0.024	-0.014
70	-0.017	0.016	-0.034	-0.006	0.008
71	-0.023	0.038	-0.036	0.003	0.051
72	-0.022	0.002	0.040	-0.023	-0.005
73	-0.027	0.010	0.004	0.013	0.046
74	-0.037	0.008	0.021	-0.055	-0.011
75	0.024	-0.004	0.032	0.017	-0.001
76	-0.076	-0.005	-0.006	-0.013	0.040
77	-0.026	0.016	0.019	-0.035	0.025
78	0.019	-0.011	-0.013	0.122	0.314

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				



37	0.484	1.000			
38	0.702	0.457	1.000		
39	0.713	0.456	0.636	1.000	
40	0.662	0.431	0.622	0.623	1.000
41	0.565	0.353	0.506	0.516	0.495
42	0.440	0.296	0.392	0.387	0.377
43	0.741	0.469	0.660	0.688	0.636
44	0.725	0.474	0.662	0.676	0.607
45	0.698	0.454	0.610	0.646	0.585
46	0.362	0.260	0.318	0.323	0.292
47	0.022	0.035	-0.019	0.033	0.004
48	0.017	0.001	-0.005	0.001	0.011
49	-0.026	-0.056	-0.021	-0.040	-0.003
50	0.007	0.007	-0.040	-0.008	-0.002
51	-0.011	-0.004	-0.027	-0.012	-0.010
52	-0.011	0.015	-0.021	-0.026	-0.018
53	0.024	0.022	0.007	0.030	0.010
54	-0.025	0.012	-0.040	-0.015	-0.021
55	-0.016	0.018	-0.032	-0.045	-0.034
56	0.016	0.029	-0.012	-0.013	-0.003
57	-0.012	-0.005	-0.028	-0.036	-0.019
58	-0.016	0.012	-0.029	-0.032	-0.054
59	-0.012	0.011	0.000	0.020	0.015
60	-0.005	-0.005	0.005	-0.013	0.016
61	-0.006	-0.023	-0.042	-0.027	-0.020
62	-0.036	0.009	-0.014	-0.029	0.010
63	-0.012	0.031	0.051	-0.007	-0.022
64	0.026	0.021	0.014	0.053	0.043
65	0.056	0.031	0.029	0.059	0.031
66	0.003	0.006	0.011	0.014	0.034
67	0.014	0.013	0.011	0.024	-0.012
68	0.010	-0.056	-0.024	0.003	0.008
69	-0.025	-0.011	0.007	0.009	0.020
70	-0.012	0.000	-0.010	-0.009	-0.037
71	0.016	0.027	0.011	0.040	0.009
72	-0.001	0.022	0.033	0.013	0.020
73	0.022	0.007	0.010	0.004	0.023
74	-0.012	-0.049	0.022	-0.018	-0.004
75	0.005	0.011	0.041	0.013	-0.010
76	0.025	-0.037	-0.003	0.011	0.016
77	0.006	-0.001	-0.007	0.002	0.026
78	0.325	0.177	0.399	0.313	0.280

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.289	1.000			
43	0.534	0.412	1.000		
44	0.527	0.392	0.693	1.000	
45	0.491	0.404	0.662	0.650	1.000
46	0.276	0.199	0.334	0.319	0.287
47	-0.010	-0.011	0.015	-0.002	0.024
48	-0.024	-0.009	0.028	0.004	0.008
49	-0.023	-0.017	-0.023	-0.029	-0.020
50	-0.017	0.012	0.018	-0.007	-0.004
51	-0.040	0.010	0.011	-0.011	-0.005
52	-0.031	0.008	-0.005	-0.035	-0.005
53	-0.035	0.006	0.017	0.013	0.000
54	-0.014	-0.006	-0.011	-0.024	-0.028
55	-0.040	0.005	-0.030	-0.047	-0.012
56	-0.007	0.005	0.022	0.002	0.003
57	-0.020	-0.026	-0.006	-0.011	-0.025
58	-0.045	-0.022	-0.016	-0.027	-0.023
59	-0.003	0.012	-0.016	-0.037	0.005
60	-0.004	0.001	-0.014	-0.009	-0.006
61	0.028	-0.016	-0.017	-0.029	0.006
62	-0.033	0.008	-0.032	-0.018	-0.020
63	-0.012	0.034	0.030	0.013	0.011
64	0.039	0.015	0.046	0.027	0.039
65	0.033	0.025	0.030	0.056	0.026
66	0.022	0.040	0.041	0.011	0.022
67	0.013	-0.042	-0.002	-0.007	0.009
68	-0.026	0.003	0.026	0.010	0.011
69	-0.011	0.043	-0.007	-0.015	-0.011
70	-0.020	-0.014	-0.021	-0.033	-0.025
71	0.013	0.010	0.027	0.037	0.021
72	-0.011	0.000	-0.010	0.006	-0.008
73	0.010	-0.002	0.006	0.021	0.004
74	0.015	-0.034	-0.014	0.001	0.013
75	-0.004	-0.003	0.003	0.006	-0.006
76	0.007	-0.002	-0.010	0.009	0.005
77	0.020	-0.041	0.013	-0.004	0.018
78	0.238	0.151	0.306	0.312	0.276

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.049	1.000			
48	-0.026	0.698	1.000		
49	-0.050	0.461	0.480	1.000	
50	0.001	0.505	0.585	0.399	1.000
51	-0.026	0.627	0.708	0.461	0.526
52	-0.032	0.621	0.681	0.420	0.502
53	-0.004	0.503	0.578	0.355	0.417
54	-0.022	0.382	0.459	0.242	0.352
55	-0.042	0.656	0.736	0.489	0.554
56	-0.049	0.657	0.723	0.446	0.534
57	-0.036	0.572	0.678	0.438	0.507
58	-0.075	0.376	0.408	0.280	0.306
59	0.003	-0.025	-0.040	-0.035	-0.064
60	0.026	-0.077	-0.004	0.003	-0.038
61	-0.036	-0.011	-0.100	0.012	-0.021
62	0.000	-0.027	-0.023	-0.083	-0.047
63	-0.002	-0.005	-0.016	-0.008	-0.060
64	-0.015	0.030	0.045	-0.047	0.002
65	0.007	-0.033	-0.019	-0.022	0.018
66	0.009	0.021	-0.005	-0.018	-0.036
67	0.008	0.051	-0.007	-0.006	0.012
68	-0.017	0.012	0.053	0.007	-0.003
69	-0.014	-0.038	-0.040	-0.027	-0.015
70	-0.020	0.023	0.069	0.022	0.041
71	-0.031	-0.002	0.000	-0.017	0.015
72	0.056	-0.253	-0.268	-0.196	-0.472
73	0.029	-0.053	-0.065	-0.016	-0.039
74	0.053	-0.604	-0.659	-0.432	-0.513
75	-0.027	0.020	0.009	-0.005	-0.514
76	-0.002	-0.037	-0.031	-0.025	-0.010
77	-0.020	-0.028	-0.046	-0.037	-0.050
78	0.135	-0.024	0.004	-0.025	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.602	1.000			
53	0.529	0.493	1.000		
54	0.452	0.401	0.366	1.000	

55	0.685	0.643	0.535	0.446	1.000
56	0.654	0.612	0.530	0.406	0.701
57	0.649	0.569	0.481	0.393	0.654
58	0.391	0.351	0.351	0.264	0.381
59	-0.053	-0.025	-0.046	-0.047	-0.060
60	0.010	-0.027	0.014	0.043	-0.001
61	0.020	-0.013	-0.046	-0.045	0.037
62	-0.043	-0.028	-0.014	0.007	-0.051
63	-0.044	-0.010	-0.019	-0.020	-0.036
64	-0.063	0.012	0.010	0.013	0.000
65	-0.008	-0.072	-0.024	-0.019	0.015
66	0.002	0.027	-0.086	-0.034	0.001
67	-0.004	-0.023	0.003	-0.074	0.012
68	0.009	0.031	0.032	0.040	-0.100
69	0.027	-0.015	-0.039	-0.003	-0.027
70	-0.012	0.047	0.041	0.044	-0.016
71	-0.042	-0.001	0.025	-0.035	-0.004
72	-0.249	-0.209	-0.170	-0.175	-0.273
73	-0.039	-0.059	-0.056	-0.055	-0.053
74	-0.608	-0.577	-0.468	-0.402	-0.631
75	0.033	0.000	0.027	-0.012	0.007
76	-0.004	-0.028	0.000	-0.049	-0.009
77	-0.012	-0.044	-0.053	-0.078	-0.034
78	-0.018	-0.004	0.006	-0.028	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.630	1.000			
58	0.393	0.341	1.000		
59	-0.045	-0.077	-0.015	1.000	
60	-0.037	0.002	0.024	-0.026	1.000
61	-0.006	0.045	-0.055	-0.020	0.020
62	-0.042	-0.030	-0.071	0.001	0.003
63	-0.032	-0.039	0.032	0.032	-0.001
64	0.053	-0.042	0.006	0.090	0.008
65	0.022	0.000	-0.026	-0.062	-0.003
66	0.000	-0.015	-0.035	-0.032	-0.026
67	0.012	0.023	-0.012	-0.025	-0.022
68	-0.013	-0.061	0.069	0.021	-0.037
69	-0.101	-0.009	0.042	0.019	0.043
70	0.009	-0.038	0.041	0.051	-0.071

71	0.006	-0.024	-0.025	-0.028	0.054
72	-0.259	-0.220	-0.172	0.011	0.002
73	-0.059	-0.017	-0.055	-0.013	0.010
74	-0.612	-0.553	-0.359	0.065	0.013
75	0.025	0.030	0.003	0.020	0.002
76	-0.011	-0.010	-0.056	-0.030	0.002
77	-0.057	-0.027	-0.051	-0.021	0.019
78	-0.033	-0.007	-0.069	-0.019	0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.065	1.000			
63	-0.008	0.034	1.000		
64	-0.101	0.047	-0.012	1.000	
65	0.074	0.023	-0.051	-0.011	1.000
66	0.064	-0.017	0.065	-0.065	0.023
67	0.008	0.004	-0.037	-0.004	0.041
68	-0.134	-0.002	-0.017	0.014	-0.058
69	0.054	-0.018	0.010	-0.074	-0.039
70	-0.126	0.010	0.039	0.047	-0.068
71	-0.039	-0.006	-0.033	0.034	0.030
72	-0.041	0.033	-0.004	0.003	-0.039
73	0.049	-0.030	-0.223	-0.031	0.001
74	-0.001	0.025	-0.001	-0.032	0.020
75	-0.029	0.020	0.031	-0.032	-0.025
76	0.023	-0.049	-0.623	-0.019	0.049
77	-0.021	0.027	-0.026	-0.023	0.005
78	-0.032	0.048	-0.012	0.017	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.073	1.000			
68	-0.049	-0.014	1.000		
69	0.009	-0.013	-0.005	1.000	
70	-0.033	-0.040	0.140	-0.064	1.000
71	0.043	0.024	-0.046	-0.032	0.020
72	0.030	-0.025	0.050	0.002	0.032
73	0.005	0.046	-0.031	0.017	-0.014

74	-0.010	-0.020	-0.019	-0.004	-0.027
75	0.021	-0.004	0.035	0.007	-0.033
76	-0.019	0.041	0.010	-0.018	-0.008
77	-0.034	0.014	-0.015	0.028	0.036
78	0.001	-0.021	-0.015	0.001	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.018	1.000			
73	0.000	-0.012	1.000		
74	-0.037	0.248	0.036	1.000	
75	-0.002	0.307	0.019	0.007	1.000
76	0.035	0.017	0.259	0.058	-0.029
77	0.028	-0.059	0.175	0.049	0.017
78	0.014	0.055	-0.049	0.031	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	0.045	1.000	
78	0.023	0.137	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.021	78
200	1.014	78
300	1.014	43
400	1.018	43

500	1.014	43
600	1.009	43
700	1.003	12
800	1.005	73
900	1.003	73
1000	1.004	61

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144



108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915

DUTIES15	0.915	0.915	0.915	0.915	0.915
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	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		

PRESS15	0.915	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	

FEL		43.091	0.291	0.000	22.41%	0.000	15.000	35.000
	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-18.789 75.134

Posterior Predictive P-Value 0.105

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON						
PHY15		0.972	0.071	0.000	0.838	1.105	*
CHOICE15		-0.069	0.025	0.003	-0.121	-0.021	*
BULLY15		0.032	0.048	0.258	-0.062	0.121	
DUTIES15		-0.031	0.028	0.134	-0.086	0.023	
PRESS15		-0.032	0.026	0.113	-0.080	0.021	
KES15		0.226	0.045	0.000	0.132	0.314	*
KES15	WITH						
PHY15		0.052	0.004	0.000	0.044	0.059	*
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073	*
BULLY15		0.058	0.004	0.000	0.050	0.065	*
PRESS15		0.100	0.008	0.000	0.085	0.116	*
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092	*
PHY15	WITH						
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022	*
BULLY15		0.012	0.003	0.001	0.005	0.018	*
PRESS15		0.039	0.007	0.000	0.026	0.052	*
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024	*
CHOICE15	WITH						
BULLY15		-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15		-0.087	0.015	0.000	-0.117	-0.060	*
DUTIES15		0.173	0.014	0.000	0.145	0.200	*
BULLY15	WITH						
PRESS15		0.105	0.007	0.000	0.091	0.119	*
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066	*
PRESS15	WITH						
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158	*
Means							
PHY15		0.002	0.006	0.373	-0.011	0.015	
KES15		0.001	0.007	0.431	-0.014	0.015	
CHOICE15		-0.002	0.015	0.457	-0.031	0.027	
BULLY15		0.000	0.007	0.471	-0.013	0.014	
PRESS15		0.001	0.014	0.481	-0.027	0.028	
DUTIES15		-0.001	0.013	0.474	-0.028	0.026	
Variances							
PHY15		0.233	0.005	0.000	0.224	0.242	*

KES15	0.290	0.006	0.000	0.278	0.301	*
CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.555	0.780	0.000	2.257	5.284
EAT		4.171	0.836	0.000	2.871	6.111
ALC		2.821	0.844	0.000	1.442	4.733
PHY		3.775	0.826	0.000	2.451	5.667
PSY		3.880	0.952	0.000	2.135	6.041
SMO		4.339	1.006	0.000	2.665	6.703
TER		3.125	0.829	0.000	1.726	5.008
BEN		2.178	0.739	0.000	0.880	3.825
HPR		4.218	0.855	0.000	2.877	6.253
SPR		3.966	0.828	0.000	2.611	5.833
CUL		3.571	0.788	0.000	2.301	5.389
FEL		79.521	31.843	0.002	23.407	152.050

SING	BY					
PSY		1.000	0.000	0.000	1.000	1.000

PHYCAT16	ON					
PROG		-0.494	0.223	0.004	-0.981	-0.097
SING		0.003	0.135	0.487	-0.264	0.294

PROG	WITH					
SING		0.001	0.029	0.491	-0.057	0.059

Intercepts						
ACC		0.466	0.073	0.000	0.317	0.604
ACT		0.115	0.142	0.197	-0.160	0.411
EAT		0.313	0.153	0.021	0.003	0.636
ALC		0.053	0.155	0.376	-0.249	0.359
PHY		0.204	0.151	0.079	-0.098	0.522
PSY		0.099	0.152	0.243	-0.193	0.418
SMO		0.324	0.189	0.046	-0.054	0.704
TER		0.186	0.156	0.104	-0.115	0.498
BEN		0.043	0.138	0.375	-0.224	0.320
HPR		0.225	0.161	0.085	-0.099	0.549

SPR	0.214	0.152	0.078	-0.081	0.513	
CUL	0.024	0.145	0.434	-0.256	0.320	
FEL	42.622	5.602	0.000	31.451	53.600	*
Thresholds						
PHYCAT16\$1	1.332	0.041	0.000	1.255	1.418	*
Variances						
PROG	0.056	0.019	0.000	0.032	0.104	*
SING	0.208	0.105	0.000	0.084	0.467	*
Residual Variances						
PHYCAT16	0.012	0.011	0.000	0.001	0.043	*
ACC	0.252	0.052	0.000	0.174	0.374	*
ACT	0.446	0.101	0.000	0.302	0.696	*
EAT	0.298	0.079	0.000	0.183	0.498	*
ALC	0.879	0.184	0.000	0.610	1.323	*
PHY	0.470	0.106	0.000	0.310	0.722	*
PSY	0.232	0.125	0.000	0.023	0.503	*
SMO	0.811	0.185	0.000	0.531	1.252	*
TER	0.775	0.162	0.000	0.530	1.157	*
BEN	0.771	0.155	0.000	0.531	1.143	*
HPR	0.377	0.095	0.000	0.238	0.609	*
SPR	0.418	0.097	0.000	0.275	0.651	*
CUL	0.448	0.099	0.000	0.296	0.690	*
FEL	1460.858	310.305	0.000	1029.219	2243.342	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Posterior	One-Tailed	95% C.I.		Significance	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%		
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.366	0.462	*
CHOICE15		-0.063	0.023	0.003	-0.112	-0.019	*
BULLY15		0.014	0.021	0.258	-0.027	0.053	
DUTIES15		-0.025	0.023	0.134	-0.070	0.019	
PRESS15		-0.028	0.023	0.113	-0.071	0.019	
KES15		0.108	0.021	0.000	0.063	0.150	*

KES15	WITH					
PHY15		0.198	0.014	0.000	0.171	0.225 *
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131 *
BULLY15		0.219	0.013	0.000	0.193	0.245 *
PRESS15		0.186	0.013	0.000	0.159	0.212 *
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185 *
PHY15	WITH					
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044 *
BULLY15		0.050	0.014	0.001	0.022	0.078 *
PRESS15		0.081	0.014	0.000	0.054	0.107 *
DUTIES15		-0.080	0.014	0.000	-0.108	-0.052 *
CHOICE15	WITH					
BULLY15		-0.115	0.014	0.000	-0.141	-0.087 *
PRESS15		-0.084	0.014	0.000	-0.112	-0.058 *
DUTIES15		0.179	0.014	0.000	0.152	0.205 *
BULLY15	WITH					
PRESS15		0.214	0.013	0.000	0.189	0.239 *
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147 *
PRESS15	WITH					
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173 *
Means						
PHY15		0.005	0.013	0.373	-0.022	0.031
KES15		0.002	0.014	0.431	-0.026	0.028
CHOICE15		-0.002	0.014	0.457	-0.030	0.026
BULLY15		0.001	0.014	0.471	-0.026	0.029
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.014	0.474	-0.030	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000

Between Level



PROG	BY						
ACC		0.425	0.061	0.000	0.327	0.558	*
ACT		0.784	0.063	0.000	0.629	0.882	*
EAT		0.877	0.043	0.000	0.769	0.937	*
ALC		0.588	0.109	0.000	0.340	0.754	*
PHY		0.797	0.060	0.000	0.654	0.885	*
PSY		0.804	0.113	0.000	0.555	1.019	*
SMO		0.758	0.072	0.000	0.577	0.865	*
TER		0.645	0.097	0.000	0.410	0.791	*
BEN		0.509	0.121	0.000	0.233	0.703	*
HPR		0.856	0.048	0.000	0.734	0.922	*
SPR		0.825	0.055	0.000	0.692	0.905	*
CUL		0.786	0.065	0.000	0.624	0.882	*
FEL		0.440	0.132	0.002	0.143	0.666	*
SING	BY						
PSY		0.403	0.101	0.000	0.243	0.620	*
PHYCAT16	ON						
PROG		-0.699	0.208	0.004	-0.973	-0.175	*
SING		0.008	0.307	0.487	-0.612	0.569	
PROG	WITH						
SING		0.007	0.225	0.491	-0.426	0.440	
Intercepts							
ACC		0.840	0.150	0.000	0.543	1.128	*
ACT		0.108	0.130	0.197	-0.140	0.366	
EAT		0.274	0.134	0.021	0.003	0.558	*
ALC		0.045	0.131	0.376	-0.205	0.300	
PHY		0.181	0.133	0.079	-0.088	0.472	
PSY		0.086	0.132	0.243	-0.157	0.359	
SMO		0.231	0.137	0.046	-0.036	0.506	
TER		0.163	0.134	0.104	-0.094	0.419	
BEN		0.040	0.132	0.375	-0.208	0.309	
HPR		0.189	0.136	0.085	-0.082	0.465	
SPR		0.188	0.132	0.078	-0.068	0.447	
CUL		0.023	0.131	0.434	-0.232	0.292	
FEL		0.988	0.169	0.000	0.667	1.355	*
Thresholds							
PHYCAT16\$1		7.536	2.790	0.000	4.787	15.161	*
Variances							

PROG	1.000	0.000	0.000	1.000	1.000	
SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.420	0.233	0.000	0.047	0.895	*
ACC	0.819	0.054	0.000	0.689	0.893	*
ACT	0.386	0.096	0.000	0.223	0.604	*
EAT	0.231	0.073	0.000	0.122	0.408	*
ALC	0.654	0.120	0.000	0.431	0.884	*
PHY	0.365	0.093	0.000	0.216	0.572	*
PSY	0.177	0.098	0.000	0.017	0.392	*
SMO	0.425	0.103	0.000	0.252	0.667	*
TER	0.584	0.118	0.000	0.374	0.832	*
BEN	0.741	0.116	0.000	0.506	0.946	*
HPR	0.268	0.080	0.000	0.150	0.461	*
SPR	0.320	0.088	0.000	0.181	0.521	*
CUL	0.383	0.098	0.000	0.222	0.611	*
FEL	0.806	0.110	0.000	0.556	0.979	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.021	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.580	0.233	0.000	0.105	0.953
ACC	0.181	0.054	0.000	0.107	0.311
ACT	0.614	0.096	0.000	0.396	0.777
EAT	0.769	0.073	0.000	0.592	0.878
ALC	0.346	0.120	0.000	0.116	0.569
PHY	0.635	0.093	0.000	0.428	0.784
PSY	0.823	0.098	0.000	0.608	0.983
SMO	0.575	0.103	0.000	0.333	0.748
TER	0.416	0.118	0.000	0.168	0.626
BEN	0.259	0.116	0.000	0.054	0.494

HPR	0.732	0.080	0.000	0.539	0.850
SPR	0.680	0.088	0.000	0.479	0.819
CUL	0.617	0.098	0.000	0.389	0.778
FEL	0.194	0.110	0.000	0.021	0.444

# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
--------	---------	----------

PHYCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15
<u>0</u>	<u>          </u>
DUTIES15	0

ALPHA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>6</u>

BETA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

# TAU

PHYCAT16

78

NU

PHYCAT16

ACC

ACT

EAT

ALC

0

34

35

36

37

NU

PHY

PSY

SMO

TER

BEN

38

39

40

41

42

NU

HPR

SPR

CUL

FEL

43

44

45

46

LAMBDA

PROG

SING

PHYCAT16

PHYCAT16

0

0

0

ACC

0

0

0

ACT

47

0

0

EAT

48

0

0

ALC

49

0

0

PHY

50

0

0

PSY

51

0

0

SMO

52

0

0

TER

53

0

0

BEN

54

0

0

HPR

55

0

0

SPR

56

0

0

CUL

57

0

0

FEL

58

0

0

THETA

PHYCAT16

ACC

ACT

EAT

ALC

PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA				
	HPR	SPR	CUL	FEL
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

ALPHA		
PROG	SING	PHYCAT16
0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000



KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.116		
KES15	0.000	0.000	0.145	
CHOICE15	0.000	0.000	0.000	0.541
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.119
DUTIES15	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15

PRESS15	<u>0.501</u>	
DUTIES15	0.000	<u>0.430</u>

STARTING VALUES FOR BETWEEN

TAU	
PHYCAT16	
	<u>1.110</u>

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<u>0.000</u>	<u>0.485</u>	<u>0.224</u>	<u>0.466</u>	<u>0.673</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>0.342</u>	<u>0.251</u>	<u>0.347</u>	<u>0.385</u>	<u>0.212</u>

NU	HPR	SPR	CUL	FEL
	<u>0.409</u>	<u>0.433</u>	<u>-0.067</u>	<u>45.726</u>

	LAMBDA		
	PROG	SING	PHYCAT16
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>1.000</u>
ACC	1.000	0.000	0.000
ACT	1.000	0.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	0.000	0.000
PSY	1.000	1.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000

BEN	1.000	0.000	0.000
HPR	1.000	0.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	0.000	0.000
FEL	1.000	0.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
HPR	0.426			

SPR	0.000	0.361		
CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG	SING	PHYCAT16	
0.000	0.000	0.000	

BETA			
PROG	SING	PHYCAT16	
0.000	0.000	0.000	
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

PSI			
PROG	SING	PHYCAT16	
1.000			
SING	1.000		
PHYCAT16	0.000	1.000	

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity

2450

Parameter 59~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.411631D-04				
2	0.918271D-05	0.541344D-04			
3	-0.847281D-05	-0.192250D-04	0.220880D-03		
4	0.153699D-05	0.975458D-05	-0.126621D-04	0.461434D-04	
5	0.709102D-05	0.190662D-04	-0.193792D-04	0.186885D-04	0.190728D-03
6	-0.568492D-05	-0.160734D-04	0.360851D-04	-0.159725D-04	-0.417520D-04
7	0.550934D-05	0.534634D-05	0.889671D-06	-0.831493D-05	-0.298725D-04
8	0.709927D-05	-0.419664D-05	-0.717391D-05	-0.536949D-05	-0.314775D-04
9	0.305422D-05	0.588784D-05	0.419077D-05	0.673741D-05	0.175468D-05
10	0.658087D-07	0.126966D-04	0.183431D-04	0.121211D-04	0.123409D-04
11	0.344894D-05	0.149975D-05	-0.864467D-07	0.872232D-06	0.154175D-04
12	-0.349104D-05	-0.238401D-05	-0.386693D-05	-0.680333D-05	0.151178D-04
13	0.423114D-06	0.720521D-06	-0.150894D-05	0.151587D-06	0.149569D-05
14	-0.696325D-06	0.125743D-05	-0.126967D-05	-0.397549D-07	-0.811292D-06
15	-0.278990D-06	0.410742D-06	-0.338485D-05	0.803233D-06	0.157872D-05
16	-0.180584D-05	-0.141775D-05	-0.444090D-05	0.603892D-06	-0.387907D-05

17	-0.199206D-06	-0.139733D-05	0.646197D-05	-0.161489D-05	-0.537145D-06
18	0.226187D-05	0.970048D-05	-0.987891D-05	0.180584D-05	0.440814D-05
19	-0.657459D-06	-0.500778D-06	0.991078D-06	0.440149D-06	-0.290739D-05
20	0.105460D-07	-0.692668D-06	-0.131046D-05	-0.161690D-06	-0.121367D-05
21	-0.163559D-06	0.885698D-06	0.265561D-05	0.151856D-05	0.191200D-05
22	-0.799728D-06	-0.184945D-06	-0.112556D-05	0.887663D-06	0.570739D-06
23	-0.383047D-06	0.633488D-06	-0.193459D-05	0.398055D-06	-0.254040D-05
24	0.569172D-06	-0.768002D-06	0.247780D-05	-0.167758D-05	0.722026D-06
25	-0.400322D-05	0.531848D-05	-0.203644D-05	-0.878215D-06	0.928488D-05
26	-0.211280D-06	-0.981892D-06	0.204018D-05	0.978899D-06	-0.291898D-05
27	-0.152052D-05	-0.900390D-05	0.115296D-04	0.205986D-05	-0.110940D-04
28	-0.118518D-05	-0.725242D-06	0.197584D-06	0.745197D-07	0.677497D-07
29	-0.192796D-05	-0.120457D-05	0.299261D-05	-0.171344D-05	-0.488556D-05
30	0.128988D-05	0.280863D-05	-0.331563D-05	0.124481D-05	-0.648389D-05
31	0.162291D-06	0.795402D-06	-0.105774D-06	-0.251304D-06	0.773437D-08
32	-0.142414D-05	0.384009D-05	0.153917D-06	-0.123375D-05	0.414230D-05
33	0.261526D-05	-0.320637D-05	-0.215102D-04	0.400487D-05	0.759210D-06
34	-0.217671D-04	-0.136337D-04	0.210513D-04	-0.717958D-05	0.359072D-04
35	-0.359264D-04	0.568718D-06	0.579042D-04	0.336323D-05	0.454830D-04
36	-0.530564D-05	0.109639D-04	0.539957D-04	0.239776D-04	0.101413D-03
37	0.341348D-05	-0.341772D-04	0.511811D-04	-0.122547D-04	0.598085D-04
38	-0.154058D-04	-0.386047D-05	0.632768D-04	0.163234D-04	-0.630940D-07
39	-0.692578D-05	0.248837D-04	-0.261603D-04	0.354419D-04	0.398809D-04
40	0.261995D-04	0.489213D-05	0.448099D-04	0.256998D-04	0.490074D-04
41	-0.288242D-04	0.359161D-04	0.181713D-05	0.189842D-04	0.495690D-04
42	0.339745D-04	-0.312112D-04	0.119288D-03	-0.423573D-05	0.227675D-04
43	0.162708D-04	0.213879D-04	0.528025D-04	0.315290D-04	0.118235D-03
44	-0.294956D-04	0.331981D-05	0.192527D-04	0.183795D-04	0.105694D-03
45	-0.553999D-05	0.786882D-06	0.109019D-04	0.438484D-05	0.952977D-04
46	-0.257446D-03	0.578532D-03	0.565136D-03	0.137305D-02	0.241743D-02
47	0.655037D-04	0.956520D-04	-0.200289D-03	-0.612350D-04	0.300421D-03
48	0.141359D-03	0.188433D-03	-0.141899D-03	0.897793D-04	0.738281D-04
49	-0.112797D-06	0.143916D-03	0.758744D-04	-0.557100D-04	0.417820D-03
50	0.817050D-04	0.211279D-03	-0.412803D-03	0.459342D-04	-0.190894D-04
51	-0.175696D-03	-0.168566D-03	-0.492784D-03	-0.836462D-05	0.242084D-03
52	0.168636D-03	0.102803D-03	-0.610398D-04	-0.132801D-03	0.527013D-05
53	-0.734829D-05	0.106554D-03	-0.379519D-03	-0.520858D-04	-0.125954D-03
54	0.194483D-03	0.326162D-03	-0.461162D-03	0.360449D-04	0.208375D-03
55	0.212314D-03	0.600715D-04	-0.167823D-03	-0.154621D-03	0.193249D-03
56	0.349643D-03	0.335528D-03	-0.297573D-03	0.920707D-04	0.201931D-03
57	0.102199D-03	0.266351D-03	-0.449863D-03	-0.887638D-04	0.170800D-03
58	-0.775288D-03	0.616932D-02	-0.163927D-01	0.820773D-02	0.911472D-02
59	-0.615945D-05	0.710063D-05	0.368029D-04	0.248427D-05	-0.400705D-04
60	0.234299D-04	0.312401D-04	-0.698085D-04	0.133680D-04	0.571332D-04



61	0.832429D-05	-0.181330D-05	-0.253872D-04	-0.219178D-04	-0.287596D-04
62	0.806058D-05	0.761032D-04	-0.220468D-05	0.807258D-05	-0.719021D-05
63	-0.455838D-05	-0.290352D-04	0.525397D-04	-0.114482D-05	0.537669D-05
64	0.111744D-04	0.136310D-04	-0.281792D-04	-0.170289D-04	0.122944D-04
65	0.443129D-05	-0.104484D-04	0.272930D-04	0.118953D-04	0.457446D-04
66	0.681089D-04	-0.191934D-04	0.560911D-05	0.367887D-05	-0.966205D-04
67	-0.763658D-05	-0.284214D-04	-0.661784D-04	-0.838291D-05	-0.725764D-04
68	-0.540844D-05	0.118344D-04	0.225637D-04	-0.337775D-05	-0.148790D-04
69	-0.788746D-05	-0.617694D-05	-0.317863D-04	-0.605526D-05	0.343809D-04
70	-0.240511D-04	-0.180062D-04	0.731660D-04	-0.127027D-04	-0.115399D-04
71	-0.218040D-02	0.738818D-01	-0.934625D-01	0.101868D+00	0.119163D+00
72	0.281079D-04	0.339822D-05	-0.825706D-05	-0.918377D-05	-0.298233D-04
73	0.554588D-06	0.413355D-04	0.294560D-04	0.129209D-06	-0.209098D-04
74	-0.188292D-06	-0.344577D-05	0.255030D-05	0.306315D-05	-0.136720D-05
75	0.722535D-05	0.126211D-04	0.677950D-05	0.321419D-05	-0.392897D-05
76	0.276756D-04	0.737228D-05	-0.873719D-05	0.232140D-04	-0.104720D-04
77	-0.322957D-05	-0.541322D-05	0.780104D-05	-0.395577D-06	0.218729D-05
78	0.163145D-05	0.210472D-05	-0.906122D-05	-0.766460D-05	0.558627D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177376D-03				
7	0.260597D-04	0.497474D-02			
8	-0.254125D-04	-0.368341D-03	0.204099D-02		
9	-0.153702D-04	0.291541D-04	0.132341D-03	0.632043D-03	
10	0.518512D-05	-0.126179D-03	-0.310634D-03	0.137651D-04	0.227549D-02
11	-0.125849D-04	-0.101609D-04	-0.163309D-03	0.144266D-04	-0.216814D-03
12	0.130443D-04	0.521090D-04	0.192862D-03	-0.107029D-03	0.789039D-04
13	0.254157D-07	0.956372D-05	0.216706D-05	-0.248645D-05	-0.369507D-06
14	-0.447442D-08	0.233008D-05	-0.526423D-05	-0.427653D-05	0.104891D-04
15	-0.217863D-05	-0.140065D-04	-0.420435D-05	-0.376444D-05	0.922032D-05
16	-0.158395D-05	-0.106394D-04	0.805707D-05	0.182697D-05	0.220015D-05
17	-0.118712D-05	0.100773D-04	-0.459776D-05	-0.109505D-05	0.408836D-05
18	-0.384495D-05	-0.842249D-05	-0.192466D-04	-0.233757D-04	-0.200673D-04
19	0.883720D-06	-0.812104D-05	0.304149D-05	0.589760D-06	0.414566D-05
20	0.614103D-06	0.601518D-06	-0.154589D-05	0.930372D-07	0.649126D-05
21	-0.148189D-05	0.118688D-04	-0.219250D-05	0.381374D-05	-0.114925D-04
22	-0.294330D-05	0.761293D-05	0.945046D-06	-0.113789D-05	0.801223D-06
23	-0.127575D-05	0.387046D-05	0.192832D-04	0.209046D-05	0.106444D-04
24	0.218223D-05	-0.364064D-05	-0.280131D-05	-0.584894D-05	0.933631D-05
25	0.180619D-05	-0.300164D-04	-0.775280D-05	0.181737D-05	0.147092D-04
26	-0.338636D-05	0.468321D-05	-0.572930D-05	0.347211D-06	-0.313267D-05

27	0.957073D-06	-0.208288D-04	-0.955069D-05	0.769110D-05	0.318118D-04
28	0.112529D-05	0.223494D-04	-0.105580D-04	-0.193089D-05	-0.572723D-05
29	0.336371D-05	0.150372D-04	-0.170154D-04	0.614592D-06	0.760650D-05
30	-0.109947D-05	-0.279446D-04	-0.931946D-05	-0.374439D-05	-0.162193D-04
31	0.320927D-05	0.189735D-05	0.109980D-06	0.429408D-06	0.334057D-05
32	0.199405D-05	0.351243D-04	0.114734D-05	0.129573D-04	-0.779378D-06
33	-0.131169D-05	0.189559D-04	-0.116846D-04	0.494591D-05	-0.768031D-05
34	0.207910D-04	-0.791781D-04	0.405554D-04	-0.782303D-04	-0.596634D-04
35	0.684307D-04	-0.212609D-03	0.257490D-03	0.221698D-04	0.181783D-04
36	0.504702D-04	-0.121154D-03	0.287617D-03	0.191311D-03	0.115273D-03
37	0.989259D-04	-0.594962D-03	0.274045D-03	0.668563D-04	0.252067D-04
38	0.502335D-04	0.368217D-03	0.104175D-03	0.123740D-03	0.974400D-04
39	0.712087D-04	0.709113D-04	0.432813D-04	0.191316D-03	-0.613303D-04
40	0.461979D-04	-0.335058D-03	0.430440D-03	0.277549D-04	0.726878D-04
41	0.108285D-04	-0.464543D-03	0.198288D-03	0.124808D-03	-0.248539D-05
42	-0.526570D-04	-0.112579D-03	0.670110D-04	0.319878D-04	0.814107D-04
43	0.226851D-04	-0.257205D-03	0.434045D-03	0.124425D-03	0.350419D-04
44	0.476025D-04	-0.174409D-03	0.254263D-03	0.117656D-03	-0.129879D-04
45	0.328247D-04	-0.541547D-03	0.317946D-03	0.125218D-03	-0.616090D-04
46	-0.586942D-04	-0.418948D-02	0.495271D-02	0.195800D-02	0.104258D-01
47	0.962936D-04	-0.174293D-02	0.180057D-02	0.248222D-03	0.768478D-04
48	0.117636D-03	-0.186708D-02	0.169674D-02	0.583885D-04	0.196212D-02
49	-0.413983D-04	0.195583D-02	0.175489D-02	-0.248034D-03	0.124557D-04
50	-0.105521D-03	-0.122283D-02	0.110885D-02	0.105521D-03	0.220763D-02
51	0.172883D-03	-0.107971D-02	0.173998D-02	0.881039D-03	0.407774D-03
52	0.109099D-03	0.591639D-03	0.167473D-02	-0.462942D-04	0.634529D-03
53	0.442405D-04	-0.108441D-02	0.103405D-02	-0.529144D-03	0.533378D-03
54	0.218858D-04	0.969869D-03	0.611289D-04	-0.472058D-03	0.191286D-02
55	0.937954D-04	-0.109855D-02	0.929190D-03	0.636928D-03	0.133578D-02
56	0.143279D-04	-0.133606D-02	0.188966D-02	0.370936D-03	-0.148105D-03
57	0.244426D-03	-0.210287D-02	0.131638D-02	0.249200D-03	0.176454D-02
58	0.496751D-02	-0.111052D+00	0.652177D-01	0.475862D-02	0.149778D-01
59	0.270893D-04	0.365535D-04	0.485777D-04	0.335717D-04	0.463690D-04
60	-0.306709D-04	0.149421D-03	0.356786D-04	-0.100438D-03	0.571467D-05
61	0.558845D-04	0.702650D-04	0.168753D-05	0.652324D-04	0.109286D-04
62	-0.352232D-04	0.371515D-03	-0.107880D-03	0.706119D-04	0.563030D-04
63	0.109119D-04	0.162861D-03	0.102301D-03	-0.425679D-05	-0.396836D-04
64	-0.162799D-04	0.289742D-03	0.746328D-04	-0.708632D-04	-0.300565D-03
65	-0.102406D-04	-0.195413D-03	-0.129866D-03	0.118730D-03	0.677508D-04
66	0.418058D-04	-0.401450D-04	0.251254D-03	-0.104001D-03	-0.263012D-03
67	0.115119D-04	-0.253357D-03	0.844182D-04	-0.468384D-04	-0.198731D-03
68	0.582983D-04	-0.263945D-03	0.573345D-04	-0.112676D-03	0.381700D-04
69	-0.116137D-04	-0.968177D-04	0.346957D-04	0.105183D-03	-0.620891D-04
70	-0.200460D-04	0.358399D-03	-0.354105D-04	0.579275D-04	-0.346486D-04

71	-0.128423D+00	0.109878D+00	0.936475D-01	-0.189284D+00	-0.239287D+00
72	0.488424D-04	0.367369D-03	-0.698733D-03	-0.397031D-03	-0.345419D-03
73	0.614821D-04	-0.106910D-03	0.233491D-03	-0.104030D-03	0.140114D-03
74	-0.101779D-04	0.272961D-04	-0.296484D-04	-0.842537D-06	-0.212576D-04
75	0.126383D-05	-0.715331D-04	0.161927D-04	-0.494163D-04	-0.660018D-05
76	0.795542D-05	-0.223450D-03	-0.443738D-04	0.106995D-03	0.150437D-03
77	0.199110D-05	0.426773D-05	-0.186342D-04	0.764225D-05	0.753959D-05
78	0.883203D-05	0.998216D-03	0.593781D-04	-0.693475D-05	0.427041D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.677680D-03				
12	0.131574D-03	0.789102D-03			
13	-0.349421D-05	0.712304D-06	0.207519D-04		
14	-0.567100D-06	0.194896D-05	0.413791D-05	0.140567D-04	
15	0.107418D-05	-0.654399D-06	0.409046D-06	0.591082D-05	0.333575D-04
16	0.260776D-06	0.639396D-05	-0.419225D-05	-0.514242D-05	-0.278921D-05
17	-0.313433D-05	0.349250D-05	-0.485867D-06	-0.329980D-05	-0.121336D-04
18	0.666785D-05	0.101298D-05	0.580787D-06	0.116931D-05	0.822607D-05
19	-0.156247D-05	-0.385679D-06	0.996467D-06	0.313164D-05	0.119930D-05
20	-0.182529D-05	-0.298181D-05	-0.104134D-06	0.107912D-05	0.679763D-05
21	-0.116173D-05	-0.211769D-05	-0.668048D-06	-0.855866D-06	-0.900799D-06
22	0.408064D-05	0.438610D-05	0.431152D-06	-0.793372D-07	0.117117D-05
23	-0.960739D-05	-0.171199D-05	0.427779D-05	0.475951D-05	0.385964D-05
24	-0.221916D-05	0.284952D-05	0.803256D-06	0.379776D-05	0.101239D-04
25	0.579331D-05	-0.142551D-04	-0.191915D-05	-0.113632D-05	-0.355159D-05
26	-0.263502D-05	-0.602232D-05	0.874075D-06	0.175131D-05	0.148294D-05
27	-0.229874D-04	0.797208D-05	0.166141D-07	0.477388D-05	0.727686D-05
28	0.211537D-05	0.463752D-05	-0.248536D-05	-0.544568D-05	-0.238708D-05
29	-0.138461D-05	-0.631390D-05	-0.147521D-05	-0.322153D-05	-0.118639D-04
30	-0.629014D-06	-0.338307D-05	0.220976D-05	0.220730D-05	0.281528D-05
31	0.364319D-05	0.216843D-05	-0.944613D-06	-0.233652D-06	-0.236262D-05
32	0.213974D-04	0.221718D-05	-0.233185D-05	-0.242808D-05	-0.507509D-05
33	-0.151618D-04	0.321048D-05	0.554010D-05	0.222437D-05	-0.127695D-05
34	-0.116987D-04	-0.864466D-05	-0.462599D-06	-0.325003D-05	-0.752001D-05
35	0.520405D-04	0.188071D-03	0.231470D-05	0.708373D-06	-0.342758D-04
36	0.588235D-05	0.115267D-03	0.104612D-04	-0.181224D-04	-0.142687D-04
37	0.494557D-04	0.122502D-03	-0.105990D-04	-0.642007D-05	-0.263341D-05
38	0.393486D-04	0.591390D-04	0.255774D-05	-0.576080D-05	-0.363495D-04
39	0.151311D-03	0.828242D-04	-0.423480D-05	0.118258D-05	0.541370D-05
40	0.576168D-04	0.134756D-03	0.443185D-05	-0.184235D-04	-0.500035D-04
41	0.158796D-03	0.198157D-03	0.257781D-04	-0.292735D-05	0.759818D-05

42	0.210951D-03	0.135226D-03	-0.108165D-04	-0.999140D-05	-0.178004D-04
43	0.117003D-03	0.151664D-03	0.476559D-05	-0.446485D-05	-0.358748D-06
44	0.322564D-04	0.175384D-04	-0.612916D-06	-0.151979D-04	-0.260329D-04
45	0.693503D-04	0.169865D-03	-0.183305D-04	-0.194869D-05	-0.161306D-04
46	-0.624937D-02	0.368353D-02	0.151439D-03	-0.530604D-03	0.454642D-03
47	0.102182D-03	0.652862D-03	0.308390D-05	-0.112073D-03	0.675222D-04
48	-0.998857D-04	0.145437D-02	-0.131816D-04	-0.132953D-03	-0.226449D-04
49	-0.255165D-03	0.114588D-02	-0.433667D-04	-0.703730D-04	0.781428D-04
50	0.513019D-05	0.184503D-03	-0.360538D-04	-0.430317D-04	-0.582894D-05
51	0.106790D-03	0.107121D-02	-0.155255D-03	-0.120231D-03	0.209108D-04
52	-0.351548D-03	0.791860D-03	-0.847537D-04	-0.683466D-04	-0.545422D-04
53	0.266218D-03	0.761500D-03	-0.757989D-04	-0.159250D-03	-0.895418D-04
54	0.836646D-04	0.669065D-03	-0.658518D-04	0.158065D-04	0.781519D-04
55	-0.637931D-04	0.100022D-02	0.195196D-04	-0.741700D-04	-0.422193D-04
56	0.400812D-03	0.674899D-03	0.475921D-04	-0.711756D-04	-0.299666D-04
57	-0.460606D-03	0.705996D-03	0.104058D-03	-0.281699D-04	-0.502406D-05
58	-0.119699D-01	0.872393D-02	0.201171D-02	-0.111025D-02	-0.460354D-02
59	0.638567D-05	0.643331D-04	-0.354799D-05	-0.981043D-06	0.182083D-05
60	-0.440813D-05	0.155999D-03	-0.677631D-05	-0.177576D-04	-0.180812D-04
61	-0.327238D-04	-0.645980D-04	-0.381452D-05	-0.617837D-05	-0.305293D-04
62	-0.273454D-03	-0.192804D-03	-0.118425D-04	-0.581697D-05	-0.349505D-04
63	0.775312D-05	0.116870D-03	0.164190D-04	0.421404D-06	0.242774D-04
64	0.140585D-03	0.930120D-05	0.280180D-04	0.271205D-04	-0.253967D-04
65	0.252824D-04	0.102887D-04	0.200609D-04	-0.264251D-04	-0.529928D-04
66	0.102829D-03	0.186455D-03	-0.763928D-05	0.617041D-05	0.380527D-04
67	-0.184897D-04	0.135941D-03	-0.158999D-04	-0.425283D-05	0.679214D-05
68	-0.722685D-04	0.363651D-04	0.490423D-06	-0.257619D-05	0.545620D-05
69	-0.162675D-04	-0.100101D-04	-0.119088D-04	0.882735D-06	0.786623D-05
70	0.204820D-03	0.435275D-04	0.382914D-05	0.496232D-05	0.299434D-04
71	0.111089D+00	-0.122561D+00	0.543718D-01	-0.313798D-01	-0.101073D+00
72	-0.198692D-03	-0.308448D-03	-0.172931D-04	0.246091D-04	-0.217254D-04
73	-0.103767D-03	0.148266D-03	0.178900D-05	0.281217D-05	-0.193455D-04
74	-0.344880D-05	-0.266360D-04	-0.103541D-05	0.141907D-05	0.337768D-05
75	-0.222597D-04	-0.496390D-05	0.207759D-05	-0.321235D-05	-0.409872D-05
76	-0.358408D-04	-0.767233D-04	-0.152362D-04	-0.297348D-04	0.509706D-05
77	0.667002D-05	-0.572481D-05	-0.234473D-06	-0.114803D-05	0.420176D-05
78	-0.221998D-04	-0.246713D-05	0.212322D-05	0.223338D-05	-0.755346D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512181D-04				
17	0.119427D-04	0.645748D-04			

18	-0.105668D-04	-0.450339D-04	0.479882D-03		
19	-0.222524D-05	-0.750274D-06	-0.594592D-06	0.117589D-04	
20	-0.134227D-06	-0.488366D-05	0.146854D-05	0.283070D-05	0.143825D-04
21	0.668692D-06	0.158884D-04	-0.263589D-04	-0.177147D-05	-0.473870D-05
22	-0.471480D-06	-0.304462D-06	0.812281D-06	0.676850D-06	0.518877D-05
23	-0.324893D-05	-0.208787D-05	0.134509D-05	0.554947D-05	0.756646D-06
24	-0.157264D-05	-0.936563D-05	0.798918D-05	0.119597D-05	0.599563D-05
25	0.774184D-05	0.276342D-04	-0.364591D-04	0.191293D-05	-0.990727D-06
26	-0.258360D-06	-0.254242D-05	-0.273073D-05	0.206956D-05	0.469125D-05
27	-0.637875D-05	-0.127446D-04	-0.231129D-06	0.193828D-05	0.591604D-05
28	0.983886D-05	0.178558D-05	-0.118045D-05	-0.390001D-05	-0.114695D-05
29	0.307169D-05	0.132427D-04	-0.984884D-05	-0.128271D-05	-0.577110D-05
30	-0.926746D-05	-0.239742D-04	0.780877D-04	0.473353D-06	0.152761D-05
31	0.540356D-06	0.410746D-05	-0.100155D-04	-0.205568D-05	-0.590822D-05
32	0.535895D-05	0.938011D-05	-0.867289D-05	0.459837D-06	-0.381504D-05
33	-0.317905D-05	-0.663831D-05	0.280038D-04	0.148301D-05	0.145076D-05
34	0.253277D-04	-0.930357D-05	-0.548867D-04	0.889341D-06	0.234230D-06
35	0.205388D-04	0.136507D-04	0.831424D-04	0.100716D-04	-0.119631D-04
36	0.375881D-04	-0.330539D-05	0.149647D-03	0.758170D-05	0.105616D-04
37	0.255744D-04	0.158227D-04	-0.626140D-04	0.114792D-04	-0.177386D-04
38	0.389006D-04	0.384411D-04	-0.647100D-05	0.173594D-04	0.282423D-05
39	0.300908D-04	0.107606D-04	0.764282D-04	0.156934D-04	-0.787146D-06
40	0.286073D-04	0.391731D-04	-0.359037D-05	0.183042D-04	-0.131763D-04
41	0.236769D-04	-0.249177D-04	-0.390160D-04	0.253762D-05	0.563430D-05
42	-0.421291D-04	0.261412D-04	0.339928D-05	0.250847D-04	-0.210596D-06
43	0.385487D-04	-0.809459D-05	-0.141230D-04	0.239049D-04	-0.103700D-04
44	0.531749D-04	0.217679D-04	-0.170012D-04	0.142993D-04	-0.351513D-05
45	0.203273D-04	-0.288992D-04	0.126350D-04	0.233489D-04	-0.306052D-05
46	0.657039D-03	-0.922223D-03	-0.456236D-02	-0.916202D-03	0.423537D-03
47	0.934155D-04	0.184810D-03	-0.302772D-03	-0.918527D-04	-0.919098D-04
48	-0.230459D-04	0.780471D-04	-0.276665D-03	-0.697963D-04	-0.985773D-04
49	0.100323D-03	0.129324D-03	-0.356848D-03	-0.594716D-04	-0.725904D-04
50	-0.119009D-03	0.787567D-04	-0.267981D-03	0.427056D-04	-0.671189D-04
51	0.443749D-04	0.113293D-03	-0.387674D-04	0.114032D-05	-0.487897D-04
52	0.130633D-04	0.168468D-03	-0.215107D-03	-0.848700D-04	-0.960280D-04
53	-0.953080D-04	0.127955D-03	-0.104453D-03	-0.530052D-04	-0.776965D-04
54	-0.107001D-03	-0.175183D-03	-0.296222D-03	-0.907256D-04	0.864528D-05
55	-0.151043D-03	0.140278D-03	-0.407728D-03	-0.455784D-04	-0.100830D-05
56	-0.456829D-04	0.176373D-03	0.379974D-03	-0.120605D-03	-0.146810D-03
57	-0.640156D-04	0.691065D-04	-0.616097D-04	-0.185961D-04	-0.106982D-03
58	-0.223473D-02	0.104380D-01	-0.354795D-01	-0.404682D-02	-0.388299D-02
59	-0.636886D-06	-0.209370D-04	-0.115782D-04	-0.529823D-05	-0.203507D-05
60	0.163477D-04	-0.106845D-04	0.355255D-04	-0.225427D-05	-0.655700D-05
61	-0.394651D-05	-0.510400D-06	0.253829D-04	-0.103333D-05	-0.310594D-05

62	0.290812D-06	-0.136222D-05	0.170590D-04	0.473543D-05	-0.161877D-05
63	0.301758D-04	0.236465D-04	-0.646761D-04	0.235520D-05	0.704929D-05
64	0.162997D-04	0.213760D-04	0.312961D-04	0.508810D-05	-0.140300D-04
65	0.195281D-05	0.514426D-04	-0.102468D-03	-0.254503D-04	-0.409923D-04
66	-0.128720D-04	-0.100208D-04	-0.920999D-04	0.196802D-04	-0.135859D-04
67	-0.197133D-04	-0.497003D-05	-0.864583D-05	-0.655394D-05	-0.267249D-04
68	0.240184D-04	0.143626D-05	-0.855775D-04	0.434466D-05	-0.252285D-05
69	0.153789D-04	0.561736D-04	-0.224430D-04	0.285119D-06	-0.109597D-04
70	0.194358D-04	-0.200957D-04	-0.955984D-05	0.100940D-05	0.571113D-05
71	-0.118948D+00	-0.305792D-01	0.203101D-01	0.463911D-01	-0.178644D-01
72	-0.121534D-04	-0.209672D-04	0.153316D-03	-0.643035D-05	0.142362D-05
73	-0.134280D-05	0.845196D-05	0.637587D-04	0.141917D-04	0.129418D-04
74	0.878137D-06	-0.499535D-05	0.127494D-04	0.171991D-05	0.248782D-05
75	0.256646D-05	0.180786D-05	-0.991557D-05	-0.128254D-05	0.302953D-05
76	0.306878D-05	-0.158280D-04	0.502069D-04	-0.514777D-05	0.491944D-05
77	0.261688D-05	-0.101441D-05	0.595425D-05	0.154607D-05	0.446644D-05
78	-0.798335D-05	0.315492D-05	0.239656D-04	0.333250D-05	0.356361D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.517679D-04				
22	-0.572963D-05	0.235140D-04			
23	-0.760171D-06	0.484791D-06	0.442034D-04		
24	-0.339231D-05	0.226883D-05	0.914445D-05	0.576165D-04	
25	0.200867D-04	-0.103308D-05	-0.541336D-05	-0.198135D-04	0.212674D-03
26	-0.283831D-05	0.951320D-05	0.446226D-05	0.121819D-04	-0.934342D-05
27	-0.670126D-05	0.632543D-05	0.181672D-04	0.368871D-04	-0.327618D-04
28	-0.677383D-06	-0.466512D-06	-0.101003D-04	-0.342506D-05	0.461624D-05
29	0.154690D-05	-0.422967D-06	-0.580159D-05	-0.120326D-04	0.969821D-05
30	-0.183255D-04	0.351624D-05	0.512400D-05	0.529552D-05	-0.398980D-04
31	0.612282D-05	-0.755342D-05	-0.150619D-05	-0.593005D-05	0.853507D-05
32	0.176762D-05	0.629123D-06	-0.109735D-04	-0.255331D-04	0.458035D-04
33	-0.391917D-05	0.347879D-06	0.855260D-05	0.594317D-05	-0.209129D-04
34	0.216460D-04	0.116369D-04	0.115846D-04	0.987853D-05	0.144196D-04
35	0.632653D-04	0.331961D-05	0.358078D-04	0.325739D-05	-0.335258D-04
36	0.605647D-04	0.225206D-04	0.368821D-04	-0.143025D-04	0.179605D-04
37	0.674089D-04	0.584357D-05	0.462821D-04	-0.179980D-04	0.486943D-04
38	0.717294D-04	0.724156D-05	0.355509D-04	-0.312699D-04	0.615469D-06
39	0.105883D-03	0.120360D-04	0.421656D-04	-0.178604D-04	0.518977D-05
40	0.875785D-04	0.136123D-05	0.976461D-04	0.324930D-05	-0.172590D-04
41	0.745798D-04	0.310079D-04	0.440688D-04	0.151895D-04	-0.739057D-05
42	0.386428D-04	0.199999D-04	0.278641D-04	-0.228642D-04	-0.191661D-05

43	0.903406D-04	-0.920126D-05	0.502057D-04	-0.216079D-04	0.977923D-05
44	0.746663D-04	0.969144D-05	0.436611D-04	-0.141235D-04	0.106910D-04
45	0.586483D-04	0.211404D-05	0.635380D-04	-0.160867D-05	0.597590D-04
46	0.267286D-02	-0.103871D-03	0.106652D-02	-0.742070D-03	0.914851D-03
47	-0.147838D-03	0.435191D-04	0.102143D-03	-0.126708D-03	0.244007D-03
48	-0.289882D-04	0.748791D-05	-0.596701D-04	-0.288785D-03	-0.679975D-05
49	-0.112719D-03	0.137464D-03	-0.730811D-04	0.779972D-04	-0.204516D-03
50	-0.156146D-03	0.231451D-04	0.105441D-04	-0.215737D-03	0.387468D-03
51	-0.544718D-04	0.120839D-03	0.424303D-04	-0.478742D-03	0.104896D-03
52	-0.747059D-04	-0.698565D-04	-0.103289D-03	-0.410294D-03	0.424384D-03
53	0.652999D-04	-0.263145D-05	-0.669068D-04	-0.224937D-03	0.484866D-05
54	-0.102881D-03	0.556593D-04	-0.964059D-04	-0.741910D-04	0.210282D-03
55	-0.798129D-04	0.567978D-04	0.901794D-04	-0.273464D-05	-0.461201D-03
56	0.291894D-04	-0.418260D-04	0.853682D-04	-0.135828D-03	0.298501D-04
57	-0.104493D-03	-0.809467D-04	0.946646D-04	-0.303274D-03	0.279666D-03
58	0.792515D-02	-0.202870D-02	0.101954D-02	-0.433693D-02	-0.223991D-02
59	0.112699D-04	-0.678111D-06	0.674222D-07	0.177175D-04	0.468968D-05
60	0.152517D-04	-0.394878D-06	0.166349D-05	0.126882D-04	0.184343D-04
61	-0.195711D-04	-0.103914D-04	-0.417182D-05	0.128488D-04	-0.363189D-05
62	-0.377674D-04	0.118775D-04	0.121933D-05	-0.153203D-04	0.256526D-04
63	-0.362085D-05	0.123632D-04	-0.197737D-06	-0.137012D-04	-0.853750D-05
64	0.373531D-05	0.438643D-05	-0.318269D-04	-0.101657D-04	-0.706649D-04
65	0.110540D-04	-0.184463D-04	0.161362D-04	-0.408934D-04	-0.121188D-03
66	-0.189941D-04	-0.306294D-04	0.560832D-04	-0.544250D-04	-0.609188D-04
67	-0.357537D-04	-0.132970D-04	-0.443492D-04	-0.584098D-09	-0.457734D-04
68	-0.472951D-05	-0.577050D-05	-0.619445D-05	0.851816D-05	0.245356D-04
69	0.187820D-04	-0.579934D-05	-0.270501D-05	-0.267230D-04	0.545501D-04
70	-0.118263D-04	0.101205D-04	0.902907D-05	0.141267D-04	0.521779D-05
71	-0.798238D-01	-0.453042D-01	0.375209D-01	-0.225090D-01	-0.182433D+00
72	0.686267D-04	-0.797897D-05	0.235724D-04	0.129279D-05	-0.246786D-06
73	-0.207610D-04	0.232349D-04	0.718028D-05	-0.105357D-04	0.845999D-04
74	0.351992D-05	0.279610D-06	0.408916D-05	0.860727D-05	-0.100784D-04
75	0.908692D-06	-0.351816D-05	0.159667D-05	0.618678D-05	0.845339D-05
76	-0.395820D-05	0.569474D-05	0.255441D-04	0.185584D-04	0.720990D-04
77	-0.501180D-05	0.425626D-05	0.949487D-06	0.456859D-05	-0.887312D-06
78	0.183238D-04	0.320218D-05	0.956119D-05	-0.332851D-05	0.358668D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.490710D-04				
27	0.467519D-04	0.403271D-03			
28	-0.126359D-05	-0.420702D-05	0.405003D-04		

29	-0.285200D-05	-0.116715D-04	0.749999D-05	0.502493D-04	
30	0.184207D-05	0.416862D-05	-0.505953D-05	-0.191631D-04	0.199958D-03
31	-0.919459D-05	-0.926448D-05	0.126569D-05	0.120030D-04	-0.145960D-04
32	-0.191446D-04	-0.807974D-04	0.737624D-05	0.227317D-04	-0.244935D-04
33	0.438567D-05	0.147968D-04	-0.777031D-05	-0.345777D-04	0.613265D-04
34	-0.584090D-05	0.542992D-04	0.644996D-05	-0.398175D-05	-0.262720D-07
35	-0.495960D-04	-0.896135D-04	0.105457D-04	-0.162431D-04	0.951969D-04
36	-0.338232D-04	0.320410D-04	0.158067D-04	-0.235627D-05	0.694817D-04
37	-0.333655D-04	0.282807D-04	-0.996213D-05	-0.112691D-04	0.366121D-05
38	-0.333696D-04	0.258938D-04	-0.383214D-05	0.140281D-04	0.802069D-05
39	-0.483312D-04	-0.246319D-04	-0.333003D-04	-0.425594D-05	0.102265D-03
40	-0.351099D-04	-0.539486D-05	-0.546841D-04	-0.149431D-04	0.849840D-04
41	-0.228087D-04	0.260804D-04	-0.252696D-04	-0.889790D-06	0.282904D-04
42	-0.622870D-06	0.452324D-04	-0.294464D-04	-0.109149D-05	0.428563D-04
43	-0.475030D-04	-0.239110D-04	-0.231770D-04	-0.279251D-04	0.110986D-03
44	-0.465780D-04	-0.620025D-04	0.828452D-06	-0.141339D-04	0.227003D-04
45	-0.363753D-04	0.545542D-04	-0.278047D-04	0.146017D-04	0.707876D-04
46	-0.196594D-02	-0.112602D-02	-0.305018D-03	-0.286080D-03	0.110290D-02
47	-0.911203D-04	0.202393D-03	-0.690207D-04	0.733437D-04	-0.972084D-05
48	-0.114346D-03	-0.194004D-03	0.262916D-05	0.281502D-03	-0.218076D-03
49	0.434043D-04	0.199478D-03	0.579062D-04	0.108046D-03	-0.286751D-03
50	0.194674D-06	-0.130232D-03	-0.942027D-04	0.262685D-03	-0.201101D-03
51	-0.103319D-03	-0.139444D-04	0.180298D-03	0.342860D-03	-0.129804D-03
52	-0.542486D-04	0.620599D-04	0.124984D-03	0.415404D-03	-0.562243D-03
53	-0.147831D-03	-0.848626D-04	-0.124054D-04	0.207735D-03	0.283330D-03
54	0.147922D-03	0.367019D-03	-0.123037D-03	-0.615826D-04	-0.713757D-04
55	-0.108810D-03	0.331038D-03	-0.943338D-04	0.222397D-03	-0.295888D-03
56	0.216060D-04	0.107947D-03	-0.593835D-04	0.141207D-03	-0.505673D-03
57	-0.592011D-04	-0.268095D-03	-0.161591D-03	0.120793D-03	-0.971337D-04
58	0.154925D-02	0.160091D-01	0.920311D-03	0.507846D-02	-0.224232D-01
59	0.469077D-05	-0.393248D-04	0.544394D-05	-0.260826D-05	-0.347597D-04
60	-0.757237D-05	0.679748D-04	0.818973D-05	0.827969D-06	0.114324D-04
61	0.708121D-05	0.657551D-04	0.229570D-04	-0.295675D-04	-0.387818D-04
62	-0.278694D-04	-0.913900D-04	-0.279869D-04	0.345793D-04	0.521076D-04
63	0.105235D-04	0.489470D-04	-0.142486D-04	-0.422940D-04	-0.186896D-04
64	0.363891D-05	-0.348146D-04	-0.234555D-04	0.141736D-04	-0.197083D-04
65	-0.620992D-05	0.806411D-04	0.267860D-04	-0.347189D-05	0.130355D-03
66	-0.135183D-04	0.185953D-03	-0.145674D-04	-0.171687D-04	0.129411D-04
67	-0.294635D-04	0.265508D-04	0.199885D-04	0.278954D-04	-0.411652D-04
68	0.848557D-06	-0.223088D-04	0.723670D-05	-0.978674D-05	-0.387644D-04
69	-0.472488D-06	0.299013D-04	0.102808D-04	-0.264141D-04	-0.392451D-04
70	-0.828197D-05	-0.275881D-04	-0.313244D-05	-0.123860D-04	-0.242290D-04
71	-0.109693D+00	-0.484677D-01	-0.116437D+00	-0.545581D-01	0.450403D-01
72	-0.562791D-04	-0.363341D-04	-0.103526D-04	-0.626263D-04	0.998577D-04



73	0.160870D-04	-0.194086D-04	0.753592D-05	0.405122D-04	-0.165631D-05
74	0.330888D-05	0.115168D-04	0.185402D-05	-0.524484D-05	0.120432D-04
75	0.671464D-05	-0.125281D-04	-0.429162D-05	-0.117640D-04	-0.426998D-05
76	0.171360D-05	0.467326D-04	0.237538D-04	-0.117322D-04	0.255481D-04
77	0.152268D-05	-0.258174D-05	0.108379D-05	-0.247470D-05	0.748895D-06
78	-0.439612D-05	-0.229238D-05	0.834188D-06	0.630746D-05	-0.229158D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391580D-04				
32	0.200799D-04	0.190395D-03			
33	-0.284318D-04	-0.658468D-04	0.287577D-03		
34	-0.295051D-05	-0.131570D-04	-0.247109D-04	0.528786D-02	
35	0.159406D-04	-0.330735D-04	0.187052D-04	0.296077D-02	0.202855D-01
36	0.204796D-05	-0.296712D-04	0.323211D-04	0.375660D-02	0.147377D-01
37	0.312536D-04	-0.279397D-05	0.193466D-04	0.280405D-02	0.933543D-02
38	-0.552444D-05	-0.383771D-04	0.972194D-05	0.350251D-02	0.133627D-01
39	0.165178D-04	0.365955D-05	0.656559D-04	0.344586D-02	0.138255D-01
40	0.516663D-05	-0.470149D-04	0.274511D-04	0.394874D-02	0.159238D-01
41	0.318438D-05	0.412716D-05	0.148886D-04	0.276031D-02	0.107836D-01
42	-0.254395D-04	0.264160D-04	-0.457022D-05	0.174600D-02	0.771452D-02
43	0.141574D-04	-0.385480D-04	0.449970D-04	0.391903D-02	0.145126D-01
44	0.470212D-05	0.769455D-05	0.448235D-04	0.359291D-02	0.140063D-01
45	0.205640D-04	-0.182112D-04	0.352496D-04	0.319922D-02	0.122050D-01
46	0.112816D-02	-0.190400D-02	-0.388747D-03	0.456289D-01	0.245219D+00
47	0.640061D-04	-0.131017D-03	0.141941D-03	0.178449D-02	0.248715D-02
48	0.190556D-03	-0.192809D-03	-0.187735D-03	0.705560D-03	0.412958D-02
49	0.125365D-04	-0.738775D-04	-0.510811D-03	-0.849250D-03	0.988902D-03
50	0.181837D-03	-0.190470D-03	-0.341049D-03	0.608226D-03	0.972729D-03
51	0.173538D-03	-0.490143D-04	-0.409670D-03	0.338369D-02	0.409177D-02
52	0.187399D-03	-0.188882D-03	-0.400772D-03	0.219979D-02	0.250462D-02
53	0.251694D-03	-0.370954D-03	-0.181912D-03	0.135288D-02	0.675389D-02
54	0.596468D-04	-0.379641D-03	0.130826D-04	0.594563D-03	-0.506187D-02
55	0.201109D-03	-0.207750D-03	-0.437996D-03	0.211150D-02	-0.134894D-02
56	0.146833D-03	-0.256213D-03	0.231767D-03	0.259768D-02	0.258676D-02
57	0.316351D-03	0.161359D-03	-0.312019D-03	0.995186D-03	0.158584D-03
58	0.816484D-02	0.604491D-02	-0.317333D-01	-0.561158D-02	-0.351762D-01
59	0.103508D-04	-0.287075D-04	-0.291876D-04	-0.120614D-03	-0.116421D-03
60	0.226764D-04	0.347366D-04	0.110224D-04	0.319456D-04	-0.343007D-03
61	0.975186D-05	-0.480964D-05	0.480002D-04	-0.198529D-03	-0.158986D-03
62	-0.211546D-04	0.617495D-04	0.803712D-04	0.203331D-04	-0.334674D-03
63	-0.355849D-04	0.573228D-04	0.176197D-04	-0.793852D-04	0.136056D-03

64	0.121197D-04	0.494003D-05	0.828068D-04	-0.210689D-04	0.322725D-03
65	-0.194412D-04	0.391833D-04	0.353907D-04	0.683116D-03	0.620924D-03
66	-0.264663D-04	-0.171773D-04	-0.663951D-04	-0.237472D-04	-0.227285D-03
67	0.970514D-05	-0.280495D-04	0.166422D-04	-0.505250D-03	-0.746701D-04
68	-0.491222D-05	-0.495790D-04	0.120207D-04	0.421238D-03	-0.171937D-03
69	-0.103993D-04	-0.361814D-05	0.214886D-04	-0.170537D-03	-0.214049D-03
70	-0.137668D-04	0.273571D-04	-0.516180D-04	-0.853069D-04	0.374315D-04
71	-0.458433D-01	0.160581D+00	-0.182292D+00	-0.135509D-01	0.190416D+01
72	-0.761226D-04	-0.796863D-05	0.462583D-04	-0.558025D-04	0.187157D-03
73	0.110956D-04	-0.185587D-04	-0.228427D-04	-0.201752D-03	-0.289879D-04
74	-0.573130D-05	-0.843664D-06	0.604364D-05	-0.633381D-04	-0.475944D-04
75	-0.848871D-06	-0.444906D-05	0.589102D-05	-0.952254D-05	0.523531D-04
76	-0.515019D-04	-0.265555D-05	-0.231086D-06	-0.751889D-04	0.343306D-03
77	-0.187198D-05	0.209295D-05	0.214173D-05	-0.255926D-04	0.249083D-04
78	0.819282D-05	0.285855D-05	-0.147244D-04	0.439659D-03	0.201239D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.233233D-01				
37	0.114969D-01	0.240914D-01			
38	0.162617D-01	0.108159D-01	0.228470D-01		
39	0.162101D-01	0.108764D-01	0.144729D-01	0.230241D-01	
40	0.191919D-01	0.127388D-01	0.177931D-01	0.177157D-01	0.357943D-01
41	0.135756D-01	0.865124D-02	0.120980D-01	0.124164D-01	0.147840D-01
42	0.942459D-02	0.642503D-02	0.888429D-02	0.799949D-02	0.100628D-01
43	0.182624D-01	0.118086D-01	0.165562D-01	0.163517D-01	0.194793D-01
44	0.168918D-01	0.112768D-01	0.157552D-01	0.153263D-01	0.175858D-01
45	0.154923D-01	0.102646D-01	0.138332D-01	0.137316D-01	0.161544D-01
46	0.321873D+00	0.234331D+00	0.279805D+00	0.279651D+00	0.324198D+00
47	0.234683D-02	0.465763D-02	-0.127970D-02	0.218127D-02	-0.752747D-04
48	0.228848D-02	0.119199D-02	-0.656691D-03	-0.337849D-03	0.111097D-02
49	-0.193370D-02	-0.570142D-02	-0.132104D-02	-0.339862D-02	0.771766D-03
50	-0.166865D-02	0.212428D-02	-0.556182D-03	-0.327369D-02	-0.438022D-02
51	-0.245177D-04	0.247302D-02	-0.173574D-02	0.328345D-03	-0.217848D-02
52	-0.167045D-02	0.317122D-02	-0.438853D-02	-0.189312D-02	-0.419434D-02
53	0.249359D-02	0.340379D-02	0.691915D-03	0.275766D-02	0.696484D-03
54	-0.343332D-02	0.168096D-02	-0.320177D-02	-0.268778D-02	-0.366297D-02
55	-0.958608D-03	0.392973D-02	-0.333190D-02	-0.465435D-02	-0.459705D-02
56	0.195151D-02	0.433358D-02	-0.120655D-02	-0.131145D-02	-0.655072D-03
57	-0.104725D-02	0.805797D-03	-0.356813D-02	-0.248359D-02	-0.274411D-02
58	-0.143220D+00	0.327134D-01	-0.152812D+00	-0.297909D+00	-0.400476D+00
59	-0.760389D-04	0.943159D-04	-0.138136D-04	0.167083D-03	0.168815D-03

60	-0.406794D-05	-0.178225D-04	-0.543010D-04	-0.618883D-04	0.403739D-03
61	0.590926D-04	-0.207091D-03	-0.409386D-03	-0.456374D-04	-0.106668D-03
62	-0.767280D-03	0.364461D-03	-0.377902D-03	0.236148D-03	0.592058D-03
63	-0.298782D-03	0.270527D-03	0.368737D-03	-0.162889D-03	-0.727406D-03
64	0.107682D-04	-0.156397D-03	0.398812D-04	-0.139557D-03	-0.724071D-03
65	0.156627D-02	0.910502D-03	0.102297D-02	0.182026D-02	0.109059D-02
66	-0.572871D-04	0.625768D-04	0.659518D-03	0.996224D-05	0.978744D-03
67	0.290116D-03	0.297910D-03	0.313418D-03	0.182928D-03	-0.440521D-03
68	-0.910726D-04	-0.944615D-03	-0.166858D-03	-0.275913D-03	-0.125064D-03
69	-0.391422D-03	-0.155535D-03	-0.115864D-05	0.691275D-04	0.369913D-03
70	-0.285836D-03	-0.133239D-03	-0.556879D-03	-0.349379D-04	-0.821678D-03
71	0.355248D+00	0.101213D+01	0.755996D+00	0.107303D+01	0.413170D-01
72	0.567984D-03	0.109267D-02	0.592379D-03	0.889365D-03	0.135368D-02
73	-0.526972D-03	0.199348D-03	-0.517187D-03	0.159772D-03	-0.683664D-03
74	-0.201988D-04	-0.139023D-03	0.555162D-04	0.225839D-04	0.206999D-04
75	0.126949D-03	0.458118D-04	0.116041D-03	0.117979D-03	0.878460D-04
76	0.332342D-03	-0.345087D-03	0.206660D-03	0.479388D-03	0.703473D-03
77	0.257169D-04	0.190144D-04	-0.187337D-04	0.557735D-04	0.608652D-04
78	0.228786D-02	0.134163D-02	0.220391D-02	0.212797D-02	0.248916D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.243426D-01				
42	0.642663D-02	0.189691D-01			
43	0.135946D-01	0.933690D-02	0.259059D-01		
44	0.126935D-01	0.839789D-02	0.171103D-01	0.232027D-01	
45	0.112568D-01	0.823392D-02	0.155399D-01	0.144360D-01	0.210035D-01
46	0.252270D+00	0.163147D+00	0.314460D+00	0.284554D+00	0.243812D+00
47	-0.730669D-03	-0.116226D-02	0.158006D-02	-0.263749D-03	0.220926D-02
48	-0.199307D-02	-0.738034D-03	0.362187D-02	0.427211D-03	0.689396D-03
49	-0.131992D-02	-0.908132D-03	-0.151130D-02	-0.255738D-02	-0.149272D-02
50	-0.486540D-02	0.146556D-02	-0.549478D-03	-0.259384D-02	-0.420952D-02
51	-0.460968D-02	0.245921D-02	0.357217D-02	0.347926D-03	0.305587D-02
52	-0.365372D-02	0.120336D-02	-0.748575D-03	-0.491576D-02	-0.105055D-02
53	-0.403354D-02	0.825882D-03	0.158694D-02	0.122648D-02	-0.395181D-03
54	-0.133632D-02	-0.726392D-03	-0.190672D-02	-0.336834D-02	-0.362192D-02
55	-0.360168D-02	0.146080D-02	-0.308754D-02	-0.509891D-02	-0.108308D-02
56	-0.166072D-03	0.764888D-03	0.264823D-02	0.310592D-03	0.125586D-03
57	-0.141689D-02	-0.238444D-02	-0.634178D-03	-0.898014D-03	-0.300110D-02
58	-0.243547D+00	-0.126484D+00	-0.144647D+00	-0.183277D+00	-0.159292D+00
59	-0.247059D-04	0.914518D-04	-0.115453D-03	-0.275355D-03	0.528849D-04
60	0.150801D-04	0.691916D-04	-0.159292D-03	-0.916728D-04	-0.752396D-04

61	0.456489D-03	-0.125905D-03	-0.691505D-04	-0.193823D-03	0.132670D-03
62	-0.745652D-03	0.274320D-03	-0.720766D-03	-0.201264D-03	-0.332991D-03
63	-0.409257D-03	-0.414091D-03	0.141060D-03	0.334998D-04	0.131372D-03
64	-0.423358D-03	0.315365D-04	-0.230650D-03	-0.358968D-04	0.240789D-03
65	0.979907D-03	0.687098D-03	0.77320D-03	0.157622D-02	0.702427D-03
66	0.478753D-03	0.840677D-03	0.988429D-03	0.176266D-03	0.396934D-03
67	0.271008D-03	-0.911705D-03	-0.643885D-04	-0.189060D-03	0.171869D-03
68	-0.520151D-03	-0.899347D-04	0.180146D-03	-0.538908D-04	-0.128765D-05
69	-0.177545D-03	0.530178D-03	-0.101692D-03	-0.216514D-03	-0.215859D-03
70	-0.362000D-03	-0.245184D-03	-0.429615D-03	-0.583554D-03	-0.420549D-03
71	0.307017D+00	0.275046D+00	0.939946D+00	0.129821D+01	0.569781D+00
72	-0.526549D-03	0.712536D-03	-0.427471D-03	0.815654D-03	0.904174D-03
73	0.163977D-03	-0.864329D-03	-0.615880D-03	0.233998D-03	-0.645197D-03
74	0.341069D-04	-0.636494D-04	-0.168069D-04	0.171173D-04	0.614936D-04
75	0.205564D-03	-0.297929D-04	0.882418D-04	0.132815D-03	-0.261502D-04
76	0.244773D-03	0.478604D-03	0.466905D-03	0.218254D-03	0.100375D-04
77	0.727627D-04	-0.674042D-04	0.635545D-04	-0.229853D-05	0.429032D-04
78	0.183070D-02	0.114459D-02	0.233518D-02	0.220512D-02	0.193781D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.313607D+02				
47	-0.192303D+00	0.608501D+00			
48	-0.906355D-01	0.456325D+00	0.699138D+00		
49	-0.197140D+00	0.307172D+00	0.343374D+00	0.711214D+00	
50	-0.176684D+00	0.397432D+00	0.490112D+00	0.316280D+00	0.681465D+00
51	-0.440747D-01	0.410248D+00	0.495920D+00	0.336549D+00	0.463856D+00
52	-0.156410D+00	0.491730D+00	0.578554D+00	0.362427D+00	0.517255D+00
53	0.493767D-02	0.332131D+00	0.409701D+00	0.258069D+00	0.365633D+00
54	-0.990147D-01	0.228202D+00	0.294382D+00	0.157842D+00	0.256901D+00
55	-0.156227D+00	0.439951D+00	0.531096D+00	0.356311D+00	0.477416D+00
56	-0.189091D+00	0.427301D+00	0.504931D+00	0.316024D+00	0.444433D+00
57	-0.132005D+00	0.358082D+00	0.451997D+00	0.295015D+00	0.402019D+00
58	-0.142827D+02	0.951592D+01	0.110457D+02	0.769898D+01	0.993507D+01
59	0.116940D-02	-0.124299D-02	-0.202810D-02	-0.182625D-02	-0.337662D-02
60	0.144920D-01	-0.578957D-02	-0.707668D-04	0.427583D-03	-0.182703D-02
61	-0.151661D-01	-0.328062D-03	-0.603985D-02	0.959671D-03	-0.228231D-02
62	0.246899D-02	-0.435137D-02	-0.357169D-02	-0.125497D-01	-0.311907D-02
63	-0.538772D-03	-0.894528D-04	0.730719D-03	0.489522D-03	-0.564061D-02
64	-0.826065D-02	0.172147D-02	0.322466D-02	0.939998D-03	-0.723819D-03
65	0.546724D-02	-0.431291D-02	-0.239279D-02	-0.353037D-02	-0.640544D-03
66	0.505510D-02	0.246132D-02	-0.356304D-03	-0.272450D-02	-0.942115D-03

67	0.564292D-02	0.563841D-02	-0.195447D-02	-0.108733D-02	0.574134D-02
68	-0.129210D-01	0.320973D-03	0.349942D-02	0.226167D-03	0.954359D-04
69	-0.117423D-01	-0.279584D-02	-0.333980D-02	-0.230806D-02	-0.171390D-02
70	-0.115015D-01	0.225555D-02	0.632309D-02	0.225789D-02	0.218635D-02
71	-0.570432D+02	-0.130062D+01	-0.113666D+01	-0.574933D+01	0.145968D+01
72	0.924579D-01	-0.513682D-01	-0.624100D-01	-0.392772D-01	-0.568294D-01
73	-0.182831D-01	-0.204712D-02	-0.630103D-02	-0.284771D-02	0.868325D-03
74	0.570088D-02	-0.889451D-02	-0.103529D-01	-0.687738D-02	-0.948817D-02
75	0.168005D-03	-0.185032D-03	-0.449549D-03	-0.336017D-03	-0.937732D-03
76	0.100894D-01	-0.383458D-02	-0.485041D-02	-0.482611D-02	-0.314666D-02
77	-0.204588D-02	0.141435D-03	-0.154674D-03	-0.246514D-03	-0.372412D-03
78	0.352200D-01	-0.916962D-03	-0.147043D-03	-0.777479D-03	-0.604540D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.906460D+00				
52	0.513337D+00	0.101151D+01			
53	0.378979D+00	0.421729D+00	0.687046D+00		
54	0.295928D+00	0.310183D+00	0.234547D+00	0.546466D+00	
55	0.501221D+00	0.561414D+00	0.393339D+00	0.292677D+00	0.730225D+00
56	0.457817D+00	0.517555D+00	0.374527D+00	0.257423D+00	0.501633D+00
57	0.438880D+00	0.462724D+00	0.327242D+00	0.239150D+00	0.448110D+00
58	0.107153D+02	0.114613D+02	0.953501D+01	0.644711D+01	0.105914D+02
59	-0.329821D-02	-0.169967D-02	-0.238084D-02	-0.191022D-02	-0.281623D-02
60	0.586890D-03	-0.284307D-02	0.151669D-02	0.322465D-02	0.350600D-03
61	0.235922D-02	-0.192315D-03	-0.223206D-02	-0.201444D-02	0.299633D-02
62	-0.107444D-01	-0.539901D-02	-0.231785D-02	0.108146D-02	-0.828710D-02
63	-0.111067D-02	-0.510927D-03	0.119356D-02	-0.110366D-02	-0.150034D-02
64	-0.162561D-02	0.664266D-02	0.370411D-02	0.454153D-02	0.764575D-03
65	0.222974D-02	-0.123598D-01	-0.303084D-02	-0.201935D-02	0.286848D-02
66	-0.137178D-02	0.438773D-02	-0.110792D-01	-0.386787D-02	-0.115098D-03
67	-0.197286D-02	-0.394094D-02	0.191017D-04	-0.877781D-02	0.109321D-02
68	-0.157331D-02	0.221657D-02	0.159866D-02	0.251894D-02	-0.865055D-02
69	0.179467D-02	-0.122175D-02	-0.280852D-02	-0.181242D-03	-0.198153D-02
70	0.867664D-03	0.480580D-02	0.337421D-02	0.366900D-02	-0.789546D-03
71	-0.887815D+01	-0.769288D+00	0.561846D+01	-0.769183D+01	-0.176969D+01
72	-0.569925D-01	-0.591480D-01	-0.436714D-01	-0.340389D-01	-0.621405D-01
73	-0.315294D-02	-0.675966D-02	-0.944648D-03	-0.273011D-02	-0.483610D-02
74	-0.984483D-02	-0.109296D-01	-0.738655D-02	-0.569183D-02	-0.102371D-01
75	-0.128152D-01	-0.874692D-03	-0.228844D-03	-0.530516D-03	-0.790386D-03
76	-0.598802D-02	-0.100901D-01	-0.491112D-02	-0.557497D-02	-0.471261D-02
77	0.221931D-04	-0.305655D-03	-0.296938D-03	-0.510241D-03	-0.175614D-03

78 0.290323D-03 -0.503849D-03 -0.121190D-03 -0.119733D-02 -0.104325D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.684874D+00				
57	0.419476D+00	0.619971D+00			
58	0.105274D+02	0.885444D+01	0.101332D+04		
59	-0.220513D-02	-0.328983D-02	-0.328524D-01	0.273366D-02	
60	-0.285655D-02	0.453745D-03	0.809972D-01	-0.140894D-03	0.101187D-01
61	0.176622D-03	0.342795D-02	-0.121286D+00	-0.794711D-04	0.231882D-03
62	-0.619400D-02	-0.479203D-02	-0.446321D+00	0.187564D-04	0.587569D-04
63	-0.186823D-02	0.221476D-03	0.747738D-01	0.171021D-03	0.335922D-03
64	0.202341D-02	-0.278493D-02	0.737736D-01	0.112815D-03	-0.330852D-03
65	0.376437D-02	0.273111D-03	-0.150797D+00	-0.595105D-03	0.168408D-04
66	0.333093D-03	-0.257636D-02	-0.189547D+00	-0.222694D-03	-0.347906D-03
67	0.109506D-02	0.280243D-02	-0.761408D-01	-0.212939D-03	-0.306786D-03
68	-0.131465D-02	-0.501345D-02	0.193404D+00	0.779235D-04	-0.374737D-03
69	-0.765326D-02	-0.199363D-03	0.133711D+00	0.998668D-04	0.468839D-03
70	0.105371D-02	-0.256656D-02	0.137799D+00	0.240069D-03	-0.733148D-03
71	0.538017D+00	-0.624135D+01	-0.263538D+03	-0.473697D+00	0.162513D+01
72	-0.600956D-01	-0.489996D-01	-0.146472D+01	0.553610D-04	-0.706185D-03
73	-0.265306D-02	-0.559607D-03	-0.729695D-01	0.194116D-03	0.426353D-03
74	-0.948886D-02	-0.837919D-02	-0.218971D+00	0.631467D-04	0.104042D-04
75	-0.341872D-03	-0.390640D-03	-0.185225D-01	0.306168D-04	-0.942468D-05
76	-0.254052D-02	-0.554426D-02	-0.210680D+00	0.753015D-04	0.187138D-03
77	-0.175105D-03	-0.203305D-03	-0.192371D-01	0.852290D-05	-0.178889D-04
78	-0.155801D-02	-0.594568D-03	-0.999785D-01	-0.369754D-04	0.135323D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	0.625316D-02				
62	-0.943755D-03	0.338837D-01			
63	-0.285976D-03	0.960162D-04	0.112066D-01		
64	-0.719444D-03	0.819170D-03	0.157148D-03	0.156613D-01	
65	0.964042D-03	0.803825D-03	-0.807424D-03	-0.888110D-03	0.343684D-01
66	0.721879D-03	-0.466735D-03	0.306610D-03	-0.332766D-03	0.651957D-03
67	0.130018D-03	0.259451D-04	0.834528D-04	-0.534340D-03	0.121819D-02
68	-0.978665D-03	0.136433D-04	0.225730D-04	0.527997D-03	-0.102046D-02
69	0.524004D-03	-0.389185D-03	-0.529790D-03	-0.118572D-02	-0.648154D-03
70	-0.100078D-02	0.233190D-03	0.501963D-03	0.253036D-03	-0.102096D-02

71	-0.911967D+00	-0.207131D+00	-0.640899D+00	0.555352D+00	0.192658D+01
72	-0.429151D-03	-0.341525D-03	-0.394020D-04	-0.357879D-03	-0.104281D-02
73	0.417922D-03	-0.722699D-04	-0.508636D-03	-0.507758D-03	-0.945353D-03
74	-0.747075D-05	0.856536D-04	0.830991D-04	-0.369732D-04	0.496746D-04
75	-0.661663D-04	0.706325D-04	0.804491D-04	-0.260797D-03	-0.388041D-04
76	0.188243D-03	-0.198532D-03	-0.163598D-03	-0.778255D-02	0.925005D-03
77	-0.368249D-04	0.264483D-04	0.798176D-04	-0.506945D-04	-0.529071D-05
78	-0.537065D-04	0.352454D-03	-0.734796D-04	0.132028D-04	-0.192605D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.263489D-01				
67	0.188115D-02	0.240161D-01			
68	-0.713718D-03	-0.251303D-03	0.908326D-02		
69	0.152600D-03	-0.116816D-03	-0.743336D-04	0.941049D-02	
70	-0.416258D-03	-0.700805D-03	0.135118D-02	-0.617447D-03	0.987887D-02
71	0.228938D+01	0.110337D+01	-0.143901D+01	-0.975994D+00	0.484854D+00
72	0.130979D-02	-0.125198D-02	0.736488D-03	0.312202D-03	0.829998D-03
73	0.723628D-04	0.122889D-02	-0.385437D-03	0.247005D-03	-0.628903D-03
74	0.160074D-04	-0.944077D-04	-0.256760D-04	-0.147454D-04	-0.462432D-04
75	-0.273142D-04	-0.385532D-04	0.117920D-03	0.212422D-04	-0.757671D-04
76	-0.144589D-03	0.280292D-03	-0.374316D-03	0.260392D-03	0.635343D-04
77	-0.176731D-04	0.589211D-04	0.774987D-05	-0.501395D-05	0.109645D-03
78	0.570011D-04	-0.953111D-04	-0.955672D-04	0.530982D-05	-0.989988D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.962250D+05				
72	-0.183178D+00	0.497360D-01			
73	-0.158439D+00	-0.328520D-02	0.181757D-01		
74	-0.146828D+00	0.122378D-02	0.290468D-04	0.350840D-03	
75	0.763289D-02	0.137154D-03	0.123033D-03	0.230456D-04	0.825213D-03
76	0.360837D+00	0.749522D-03	-0.261702D-03	0.958207D-04	0.522523D-04
77	0.702121D-01	-0.169230D-03	0.433466D-05	0.574814D-05	-0.431989D-05
78	0.831375D-01	0.385042D-03	-0.153390D-03	0.197548D-04	-0.170528D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78

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76  0.109271D-01
77 -0.746945D-05  0.131336D-03
78 -0.144139D-03  0.824512D-04  0.168715D-02

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	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.195	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.067	-0.164	0.182	-0.177	-0.227
7	0.012	0.010	0.001	-0.017	-0.031
8	0.024	-0.013	-0.011	-0.017	-0.050
9	0.019	0.032	0.011	0.039	0.005
10	0.000	0.036	0.026	0.037	0.019
11	0.021	0.008	0.000	0.005	0.043
12	-0.019	-0.012	-0.009	-0.036	0.039
13	0.014	0.021	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.008	0.010	-0.039	0.020	0.020
16	-0.039	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.000	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.016	0.027	0.009
23	-0.009	0.013	-0.020	0.009	-0.028
24	0.012	-0.014	0.022	-0.033	0.007
25	-0.043	0.050	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.015	0.002	0.002	0.001
29	-0.042	-0.023	0.028	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.047	-0.025	0.019	-0.015	0.036
35	-0.039	0.001	0.027	0.003	0.023
36	-0.005	0.010	0.024	0.023	0.048



37	0.003	-0.030	0.022	-0.012	0.028
38	-0.016	-0.003	0.028	0.016	0.000
39	-0.007	0.022	-0.012	0.034	0.019
40	0.022	0.004	0.016	0.020	0.019
41	-0.029	0.031	0.001	0.018	0.023
42	0.038	-0.031	0.058	-0.005	0.012
43	0.016	0.018	0.022	0.029	0.053
44	-0.030	0.003	0.009	0.018	0.050
45	-0.006	0.001	0.005	0.004	0.048
46	-0.007	0.014	0.007	0.036	0.031
47	0.013	0.017	-0.017	-0.012	0.028
48	0.026	0.031	-0.011	0.016	0.006
49	0.000	0.023	0.006	-0.010	0.036
50	0.015	0.035	-0.034	0.008	-0.002
51	-0.029	-0.024	-0.035	-0.001	0.018
52	0.026	0.014	-0.004	-0.019	0.000
53	-0.001	0.017	-0.031	-0.009	-0.011
54	0.041	0.060	-0.042	0.007	0.020
55	0.039	0.010	-0.013	-0.027	0.016
56	0.066	0.055	-0.024	0.016	0.018
57	0.020	0.046	-0.038	-0.017	0.016
58	-0.004	0.026	-0.035	0.038	0.021
59	-0.018	0.018	0.047	0.007	-0.055
60	0.036	0.042	-0.047	0.020	0.041
61	0.016	-0.003	-0.022	-0.041	-0.026
62	0.007	0.056	-0.001	0.006	-0.003
63	-0.007	-0.037	0.033	-0.002	0.004
64	0.014	0.015	-0.015	-0.020	0.007
65	0.004	-0.008	0.010	0.009	0.018
66	0.065	-0.016	0.002	0.003	-0.043
67	-0.008	-0.025	-0.029	-0.008	-0.034
68	-0.009	0.017	0.016	-0.005	-0.011
69	-0.013	-0.009	-0.022	-0.009	0.026
70	-0.038	-0.025	0.050	-0.019	-0.008
71	-0.001	0.032	-0.020	0.048	0.028
72	0.020	0.002	-0.002	-0.006	-0.010
73	0.001	0.042	0.015	0.000	-0.011
74	-0.002	-0.025	0.009	0.024	-0.005
75	0.039	0.060	0.016	0.016	-0.010
76	0.041	0.010	-0.006	0.033	-0.007
77	-0.044	-0.064	0.046	-0.005	0.014
78	0.006	0.007	-0.015	-0.027	0.010

## ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.028	1.000			
8	-0.042	-0.116	1.000		
9	-0.046	0.016	0.117	1.000	
10	0.008	-0.038	-0.144	0.011	1.000
11	-0.036	-0.006	-0.139	0.022	-0.175
12	0.035	0.026	0.152	-0.152	0.059
13	0.000	0.030	0.011	-0.022	-0.002
14	0.000	0.009	-0.031	-0.045	0.059
15	-0.028	-0.034	-0.016	-0.026	0.033
16	-0.017	-0.021	0.025	0.010	0.006
17	-0.011	0.018	-0.013	-0.005	0.011
18	-0.013	-0.005	-0.019	-0.042	-0.019
19	0.019	-0.034	0.020	0.007	0.025
20	0.012	0.002	-0.009	0.001	0.036
21	-0.015	0.023	-0.007	0.021	-0.033
22	-0.046	0.022	0.004	-0.009	0.003
23	-0.014	0.008	0.064	0.013	0.034
24	0.022	-0.007	-0.008	-0.031	0.026
25	0.009	-0.029	-0.012	0.005	0.021
26	-0.036	0.009	-0.018	0.002	-0.009
27	0.004	-0.015	-0.011	0.015	0.033
28	0.013	0.050	-0.037	-0.012	-0.019
29	0.036	0.030	-0.053	0.003	0.022
30	-0.006	-0.028	-0.015	-0.011	-0.024
31	0.039	0.004	0.000	0.003	0.011
32	0.011	0.036	0.002	0.037	-0.001
33	-0.006	0.016	-0.015	0.012	-0.009
34	0.021	-0.015	0.012	-0.043	-0.017
35	0.036	-0.021	0.040	0.006	0.003
36	0.025	-0.011	0.042	0.050	0.016
37	0.048	-0.054	0.039	0.017	0.003
38	0.025	0.035	0.015	0.033	0.014
39	0.035	0.007	0.006	0.050	-0.008
40	0.018	-0.025	0.050	0.006	0.008
41	0.005	-0.042	0.028	0.032	0.000
42	-0.029	-0.012	0.011	0.009	0.012
43	0.011	-0.023	0.060	0.031	0.005
44	0.023	-0.016	0.037	0.031	-0.002
45	0.017	-0.053	0.049	0.034	-0.009
46	-0.001	-0.011	0.020	0.014	0.039

47	0.009	-0.032	0.051	0.013	0.002
48	0.011	-0.032	0.045	0.003	0.049
49	-0.004	0.033	0.046	-0.012	0.000
50	-0.010	-0.021	0.030	0.005	0.056
51	0.014	-0.016	0.040	0.037	0.009
52	0.008	0.008	0.037	-0.002	0.013
53	0.004	-0.019	0.028	-0.025	0.013
54	0.002	0.019	0.002	-0.025	0.054
55	0.008	-0.018	0.024	0.030	0.033
56	0.001	-0.023	0.051	0.018	-0.004
57	0.023	-0.038	0.037	0.013	0.047
58	0.012	-0.049	0.045	0.006	0.010
59	0.039	0.010	0.021	0.026	0.019
60	-0.023	0.021	0.008	-0.040	0.001
61	0.053	0.013	0.000	0.033	0.003
62	-0.014	0.029	-0.013	0.015	0.006
63	0.008	0.022	0.021	-0.002	-0.008
64	-0.010	0.033	0.013	-0.023	-0.050
65	-0.004	-0.015	-0.016	0.025	0.008
66	0.019	-0.004	0.034	-0.025	-0.034
67	0.006	-0.023	0.012	-0.012	-0.027
68	0.046	-0.039	0.013	-0.047	0.008
69	-0.009	-0.014	0.008	0.043	-0.013
70	-0.015	0.051	-0.008	0.023	-0.007
71	-0.031	0.005	0.007	-0.024	-0.016
72	0.016	0.023	-0.069	-0.071	-0.032
73	0.034	-0.011	0.038	-0.031	0.022
74	-0.041	0.021	-0.035	-0.002	-0.024
75	0.003	-0.035	0.012	-0.068	-0.005
76	0.006	-0.030	-0.009	0.041	0.030
77	0.013	0.005	-0.036	0.027	0.014
78	0.016	0.345	0.032	-0.007	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.180	1.000			
13	-0.029	0.006	1.000		
14	-0.006	0.019	0.242	1.000	
15	0.007	-0.004	0.016	0.273	1.000
16	0.001	0.032	-0.129	-0.192	-0.067
17	-0.015	0.015	-0.013	-0.110	-0.261

18	0.012	0.002	0.006	0.014	0.065
19	-0.018	-0.004	0.064	0.244	0.061
20	-0.018	-0.028	-0.006	0.076	0.310
21	-0.006	-0.010	-0.020	-0.032	-0.022
22	0.032	0.032	0.020	-0.004	0.042
23	-0.056	-0.009	0.141	0.191	0.101
24	-0.011	0.013	0.023	0.133	0.231
25	0.015	-0.035	-0.029	-0.021	-0.042
26	-0.014	-0.031	0.027	0.067	0.037
27	-0.044	0.014	0.000	0.063	0.063
28	0.013	0.026	-0.086	-0.228	-0.065
29	-0.008	-0.032	-0.046	-0.121	-0.290
30	-0.002	-0.009	0.034	0.042	0.034
31	0.022	0.012	-0.033	-0.010	-0.065
32	0.060	0.006	-0.037	-0.047	-0.064
33	-0.034	0.007	0.072	0.035	-0.013
34	-0.006	-0.004	-0.001	-0.012	-0.018
35	0.014	0.047	0.004	0.001	-0.042
36	0.001	0.027	0.015	-0.032	-0.016
37	0.012	0.028	-0.015	-0.011	-0.003
38	0.010	0.014	0.004	-0.010	-0.042
39	0.038	0.019	-0.006	0.002	0.006
40	0.012	0.025	0.005	-0.026	-0.046
41	0.039	0.045	0.036	-0.005	0.008
42	0.059	0.035	-0.017	-0.019	-0.022
43	0.028	0.034	0.006	-0.007	0.000
44	0.008	0.004	-0.001	-0.027	-0.030
45	0.018	0.042	-0.028	-0.004	-0.019
46	-0.043	0.023	0.006	-0.025	0.014
47	0.005	0.030	0.001	-0.038	0.015
48	-0.005	0.062	-0.003	-0.042	-0.005
49	-0.012	0.048	-0.011	-0.022	0.016
50	0.000	0.008	-0.010	-0.014	-0.001
51	0.004	0.040	-0.036	-0.034	0.004
52	-0.013	0.028	-0.018	-0.018	-0.009
53	0.012	0.033	-0.020	-0.051	-0.019
54	0.004	0.032	-0.020	0.006	0.018
55	-0.003	0.042	0.005	-0.023	-0.009
56	0.019	0.029	0.013	-0.023	-0.006
57	-0.022	0.032	0.029	-0.010	-0.001
58	-0.014	0.010	0.014	-0.009	-0.025
59	0.005	0.044	-0.015	-0.005	0.006
60	-0.002	0.055	-0.015	-0.047	-0.031
61	-0.016	-0.029	-0.011	-0.021	-0.067

62	-0.057	-0.037	-0.014	-0.008	-0.033
63	0.003	0.039	0.034	0.001	0.040
64	0.043	0.003	0.049	0.058	-0.035
65	0.005	0.002	0.024	-0.038	-0.049
66	0.024	0.041	-0.010	0.010	0.041
67	-0.005	0.031	-0.023	-0.007	0.008
68	-0.029	0.014	0.001	-0.007	0.010
69	-0.006	-0.004	-0.027	0.002	0.014
70	0.079	0.016	0.008	0.013	0.052
71	0.014	-0.014	0.038	-0.027	-0.056
72	-0.034	-0.049	-0.017	0.029	-0.017
73	-0.030	0.039	0.003	0.006	-0.025
74	-0.007	-0.051	-0.012	0.020	0.031
75	-0.030	-0.006	0.016	-0.030	-0.025
76	-0.013	-0.026	-0.032	-0.076	0.008
77	0.022	-0.018	-0.004	-0.027	0.063
78	-0.021	-0.002	0.011	0.015	-0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.014	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.044	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.008	-0.179	-0.048
29	0.061	0.232	-0.063	-0.053	-0.215
30	-0.092	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.026	0.023
34	0.049	-0.016	-0.034	0.004	0.001
35	0.020	0.012	0.027	0.021	-0.022
36	0.034	-0.003	0.045	0.014	0.018
37	0.023	0.013	-0.018	0.022	-0.030

38	0.036	0.032	-0.002	0.033	0.005
39	0.028	0.009	0.023	0.030	-0.001
40	0.021	0.026	-0.001	0.028	-0.018
41	0.021	-0.020	-0.011	0.005	0.010
42	-0.043	0.024	0.001	0.053	0.000
43	0.033	-0.006	-0.004	0.043	-0.017
44	0.049	0.018	-0.005	0.027	-0.006
45	0.020	-0.025	0.004	0.047	-0.006
46	0.016	-0.020	-0.037	-0.048	0.020
47	0.017	0.029	-0.018	-0.034	-0.031
48	-0.004	0.012	-0.015	-0.024	-0.031
49	0.017	0.019	-0.019	-0.021	-0.023
50	-0.020	0.012	-0.015	0.015	-0.021
51	0.007	0.015	-0.002	0.000	-0.014
52	0.002	0.021	-0.010	-0.025	-0.025
53	-0.016	0.019	-0.006	-0.019	-0.025
54	-0.020	-0.029	-0.018	-0.036	0.003
55	-0.025	0.020	-0.022	-0.016	0.000
56	-0.008	0.027	0.021	-0.042	-0.047
57	-0.011	0.011	-0.004	-0.007	-0.036
58	-0.010	0.041	-0.051	-0.037	-0.032
59	-0.002	-0.050	-0.010	-0.030	-0.010
60	0.023	-0.013	0.016	-0.007	-0.017
61	-0.007	-0.001	0.015	-0.004	-0.010
62	0.000	-0.001	0.004	0.008	-0.002
63	0.040	0.028	-0.028	0.006	0.018
64	0.018	0.021	0.011	0.012	-0.030
65	0.001	0.035	-0.025	-0.040	-0.058
66	-0.011	-0.008	-0.026	0.035	-0.022
67	-0.018	-0.004	-0.003	-0.012	-0.045
68	0.035	0.002	-0.041	0.013	-0.007
69	0.022	0.072	-0.011	0.001	-0.030
70	0.027	-0.025	-0.004	0.003	0.015
71	-0.054	-0.012	0.003	0.044	-0.015
72	-0.008	-0.012	0.031	-0.008	0.002
73	-0.001	0.008	0.022	0.031	0.025
74	0.007	-0.033	0.031	0.027	0.035
75	0.012	0.008	-0.016	-0.013	0.028
76	0.004	-0.019	0.022	-0.014	0.012
77	0.032	-0.011	0.024	0.039	0.103
78	-0.027	0.010	0.027	0.024	0.023

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.055	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.041	0.033	0.024	0.018	0.014
35	0.062	0.005	0.038	0.003	-0.016
36	0.055	0.030	0.036	-0.012	0.008
37	0.060	0.008	0.045	-0.015	0.022
38	0.066	0.010	0.035	-0.027	0.000
39	0.097	0.016	0.042	-0.016	0.002
40	0.064	0.001	0.078	0.002	-0.006
41	0.066	0.041	0.042	0.013	-0.003
42	0.039	0.030	0.030	-0.022	-0.001
43	0.078	-0.012	0.047	-0.018	0.004
44	0.068	0.013	0.043	-0.012	0.005
45	0.056	0.003	0.066	-0.001	0.028
46	0.066	-0.004	0.029	-0.017	0.011
47	-0.026	0.012	0.020	-0.021	0.021
48	-0.005	0.002	-0.011	-0.046	-0.001
49	-0.019	0.034	-0.013	0.012	-0.017
50	-0.026	0.006	0.002	-0.034	0.032
51	-0.008	0.026	0.007	-0.066	0.008
52	-0.010	-0.014	-0.015	-0.054	0.029
53	0.011	-0.001	-0.012	-0.036	0.000
54	-0.019	0.016	-0.020	-0.013	0.020
55	-0.013	0.014	0.016	0.000	-0.037
56	0.005	-0.010	0.016	-0.022	0.002
57	-0.018	-0.021	0.018	-0.051	0.024
58	0.035	-0.013	0.005	-0.018	-0.005
59	0.030	-0.003	0.000	0.045	0.006
60	0.021	-0.001	0.002	0.017	0.013
61	-0.034	-0.027	-0.008	0.021	-0.003
62	-0.029	0.013	0.001	-0.011	0.010

63	-0.005	0.024	0.000	-0.017	-0.006
64	0.004	0.007	-0.038	-0.011	-0.039
65	0.008	-0.021	0.013	-0.029	-0.045
66	-0.016	-0.039	0.052	-0.044	-0.026
67	-0.032	-0.018	-0.043	0.000	-0.020
68	-0.007	-0.012	-0.010	0.012	0.018
69	0.027	-0.012	-0.004	-0.036	0.039
70	-0.017	0.021	0.014	0.019	0.004
71	-0.036	-0.030	0.018	-0.010	-0.040
72	0.043	-0.007	0.016	0.001	0.000
73	-0.021	0.036	0.008	-0.010	0.043
74	0.026	0.003	0.033	0.061	-0.037
75	0.004	-0.025	0.008	0.028	0.020
76	-0.005	0.011	0.037	0.023	0.047
77	-0.061	0.077	0.012	0.053	-0.005
78	0.062	0.016	0.035	-0.011	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.043	-0.072	-0.288	0.256
34	-0.011	0.037	0.014	-0.008	0.000
35	-0.050	-0.031	0.012	-0.016	0.047
36	-0.032	0.010	0.016	-0.002	0.032
37	-0.031	0.009	-0.010	-0.010	0.002
38	-0.032	0.009	-0.004	0.013	0.004
39	-0.045	-0.008	-0.034	-0.004	0.048
40	-0.026	-0.001	-0.045	-0.011	0.032
41	-0.021	0.008	-0.025	-0.001	0.013
42	-0.001	0.016	-0.034	-0.001	0.022
43	-0.042	-0.007	-0.023	-0.024	0.049
44	-0.044	-0.020	0.001	-0.013	0.011
45	-0.036	0.019	-0.030	0.014	0.035
46	-0.050	-0.010	-0.009	-0.007	0.014
47	-0.017	0.013	-0.014	0.013	-0.001
48	-0.020	-0.012	0.000	0.047	-0.018



49	0.007	0.012	0.011	0.018	-0.024
50	0.000	-0.008	-0.018	0.045	-0.017
51	-0.015	-0.001	0.030	0.051	-0.010
52	-0.008	0.003	0.020	0.058	-0.040
53	-0.025	-0.005	-0.002	0.035	0.024
54	0.029	0.025	-0.026	-0.012	-0.007
55	-0.018	0.019	-0.017	0.037	-0.024
56	0.004	0.006	-0.011	0.024	-0.043
57	-0.011	-0.017	-0.032	0.022	-0.009
58	0.007	0.025	0.005	0.023	-0.050
59	0.013	-0.037	0.016	-0.007	-0.047
60	-0.011	0.034	0.013	0.001	0.008
61	0.013	0.041	0.046	-0.053	-0.035
62	-0.022	-0.025	-0.024	0.027	0.020
63	0.014	0.023	-0.021	-0.056	-0.012
64	0.004	-0.014	-0.029	0.016	-0.011
65	-0.005	0.022	0.023	-0.003	0.050
66	-0.012	0.057	-0.014	-0.015	0.006
67	-0.027	0.009	0.020	0.025	-0.019
68	0.001	-0.012	0.012	-0.014	-0.029
69	-0.001	0.015	0.017	-0.038	-0.029
70	-0.012	-0.014	-0.005	-0.018	-0.017
71	-0.050	-0.008	-0.059	-0.025	0.010
72	-0.036	-0.008	-0.007	-0.040	0.032
73	0.017	-0.007	0.009	0.042	-0.001
74	0.025	0.031	0.016	-0.040	0.045
75	0.033	-0.022	-0.023	-0.058	-0.011
76	0.002	0.022	0.036	-0.016	0.017
77	0.019	-0.011	0.015	-0.030	0.005
78	-0.015	-0.003	0.003	0.022	-0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.006	-0.013	-0.020	1.000	
35	0.018	-0.017	0.008	0.286	1.000
36	0.002	-0.014	0.012	0.338	0.678
37	0.032	-0.001	0.007	0.248	0.422
38	-0.006	-0.018	0.004	0.319	0.621
39	0.017	0.002	0.026	0.312	0.640

40	0.004	-0.018	0.009	0.287	0.591
41	0.003	0.002	0.006	0.243	0.485
42	-0.030	0.014	-0.002	0.174	0.393
43	0.014	-0.017	0.016	0.335	0.633
44	0.005	0.004	0.017	0.324	0.646
45	0.023	-0.009	0.014	0.304	0.591
46	0.032	-0.025	-0.004	0.112	0.307
47	0.013	-0.012	0.011	0.031	0.022
48	0.036	-0.017	-0.013	0.012	0.035
49	0.002	-0.006	-0.036	-0.014	0.008
50	0.035	-0.017	-0.024	0.010	0.008
51	0.029	-0.004	-0.025	0.049	0.030
52	0.030	-0.014	-0.023	0.030	0.017
53	0.049	-0.032	-0.013	0.022	0.057
54	0.013	-0.037	0.001	0.011	-0.048
55	0.038	-0.018	-0.030	0.034	-0.011
56	0.028	-0.022	0.017	0.043	0.022
57	0.064	0.015	-0.023	0.017	0.001
58	0.041	0.014	-0.059	-0.002	-0.008
59	0.032	-0.040	-0.033	-0.032	-0.016
60	0.036	0.025	0.006	0.004	-0.024
61	0.020	-0.004	0.036	-0.035	-0.014
62	-0.018	0.024	0.026	0.002	-0.013
63	-0.054	0.039	0.010	-0.010	0.009
64	0.015	0.003	0.039	-0.002	0.018
65	-0.017	0.015	0.011	0.051	0.024
66	-0.026	-0.008	-0.024	-0.002	-0.010
67	0.010	-0.013	0.006	-0.045	-0.003
68	-0.008	-0.038	0.007	0.061	-0.013
69	-0.017	-0.003	0.013	-0.024	-0.015
70	-0.022	0.020	-0.031	-0.012	0.003
71	-0.024	0.038	-0.035	-0.001	0.043
72	-0.055	-0.003	0.012	-0.003	0.006
73	0.013	-0.010	-0.010	-0.021	-0.002
74	-0.049	-0.003	0.019	-0.047	-0.018
75	-0.005	-0.011	0.012	-0.005	0.013
76	-0.079	-0.002	0.000	-0.010	0.023
77	-0.026	0.013	0.011	-0.031	0.015
78	0.032	0.005	-0.021	0.147	0.344

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36

37

38

39

40

36	1.000				
37	0.485	1.000			
38	0.704	0.461	1.000		
39	0.700	0.462	0.631	1.000	
40	0.664	0.434	0.622	0.617	1.000
41	0.570	0.357	0.513	0.524	0.501
42	0.448	0.301	0.427	0.383	0.386
43	0.743	0.473	0.681	0.670	0.640
44	0.726	0.477	0.684	0.663	0.610
45	0.700	0.456	0.631	0.624	0.589
46	0.376	0.270	0.331	0.329	0.306
47	0.020	0.038	-0.011	0.018	-0.001
48	0.018	0.009	-0.005	-0.003	0.007
49	-0.015	-0.044	-0.010	-0.027	0.005
50	-0.013	0.017	-0.004	-0.026	-0.028
51	0.000	0.017	-0.012	0.002	-0.012
52	-0.011	0.020	-0.029	-0.012	-0.022
53	0.020	0.026	0.006	0.022	0.004
54	-0.030	0.015	-0.029	-0.024	-0.026
55	-0.007	0.030	-0.026	-0.036	-0.028
56	0.015	0.034	-0.010	-0.010	-0.004
57	-0.009	0.007	-0.030	-0.021	-0.018
58	-0.029	0.007	-0.032	-0.062	-0.066
59	-0.010	0.012	-0.002	0.021	0.017
60	0.000	-0.001	-0.004	-0.004	0.021
61	0.005	-0.017	-0.034	-0.004	-0.007
62	-0.027	0.013	-0.014	0.008	0.017
63	-0.018	0.016	0.023	-0.010	-0.036
64	0.001	-0.008	0.002	-0.007	-0.031
65	0.055	0.032	0.037	0.065	0.031
66	-0.002	0.002	0.027	0.000	0.032
67	0.012	0.012	0.013	0.008	-0.015
68	-0.006	-0.064	-0.012	-0.019	-0.007
69	-0.026	-0.010	0.000	0.005	0.020
70	-0.019	-0.009	-0.037	-0.002	-0.044
71	0.007	0.021	0.016	0.023	0.001
72	0.017	0.032	0.018	0.026	0.032
73	-0.026	0.010	-0.025	0.008	-0.027
74	-0.007	-0.048	0.020	0.008	0.006
75	0.029	0.010	0.027	0.027	0.016
76	0.021	-0.021	0.013	0.030	0.036
77	0.015	0.011	-0.011	0.032	0.028
78	0.365	0.210	0.355	0.341	0.320

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.299	1.000			
43	0.541	0.421	1.000		
44	0.534	0.400	0.698	1.000	
45	0.498	0.413	0.666	0.654	1.000
46	0.289	0.212	0.349	0.334	0.300
47	-0.006	-0.011	0.013	-0.002	0.020
48	-0.015	-0.006	0.027	0.003	0.006
49	-0.010	-0.008	-0.011	-0.020	-0.012
50	-0.038	0.013	-0.004	-0.021	-0.035
51	-0.031	0.019	0.023	0.002	0.022
52	-0.023	0.009	-0.005	-0.032	-0.007
53	-0.031	0.007	0.012	0.010	-0.003
54	-0.012	-0.007	-0.016	-0.030	-0.034
55	-0.027	0.012	-0.022	-0.039	-0.009
56	-0.001	0.007	0.020	0.002	0.001
57	-0.012	-0.022	-0.005	-0.007	-0.026
58	-0.049	-0.029	-0.028	-0.038	-0.035
59	-0.003	0.013	-0.014	-0.035	0.007
60	0.001	0.005	-0.010	-0.006	-0.005
61	0.037	-0.012	-0.005	-0.016	0.012
62	-0.026	0.011	-0.024	-0.007	-0.012
63	-0.025	-0.028	0.008	0.002	0.009
64	-0.022	0.002	-0.011	-0.002	0.013
65	0.034	0.027	0.029	0.056	0.026
66	0.019	0.038	0.038	0.007	0.017
67	0.011	-0.043	-0.003	-0.008	0.008
68	-0.035	-0.007	0.012	-0.004	0.000
69	-0.012	0.040	-0.007	-0.015	-0.015
70	-0.023	-0.018	-0.027	-0.039	-0.029
71	0.006	0.006	0.019	0.027	0.013
72	-0.015	0.023	-0.012	0.024	0.028
73	0.008	-0.047	-0.028	0.011	-0.033
74	0.012	-0.025	-0.006	0.006	0.023
75	0.046	-0.008	0.019	0.030	-0.006
76	0.015	0.033	0.028	0.014	0.001
77	0.041	-0.043	0.034	-0.001	0.026
78	0.286	0.202	0.353	0.352	0.326

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	46	47	48	49	50
46	1.000				
47	-0.044	1.000			
48	-0.019	0.700	1.000		
49	-0.042	0.467	0.487	1.000	
50	-0.038	0.617	0.710	0.454	1.000
51	-0.008	0.552	0.623	0.419	0.590
52	-0.028	0.627	0.688	0.427	0.623
53	0.001	0.514	0.591	0.369	0.534
54	-0.024	0.396	0.476	0.253	0.421
55	-0.033	0.660	0.743	0.494	0.677
56	-0.041	0.662	0.730	0.453	0.651
57	-0.030	0.583	0.687	0.444	0.619
58	-0.080	0.383	0.415	0.287	0.378
59	0.004	-0.030	-0.046	-0.041	-0.078
60	0.026	-0.074	-0.001	0.005	-0.022
61	-0.034	-0.005	-0.091	0.014	-0.035
62	0.002	-0.030	-0.023	-0.081	-0.021
63	-0.001	-0.001	0.008	0.005	-0.065
64	-0.012	0.018	0.031	0.009	-0.007
65	0.005	-0.030	-0.015	-0.023	-0.004
66	0.006	0.019	-0.003	-0.020	-0.007
67	0.007	0.047	-0.015	-0.008	0.045
68	-0.024	0.004	0.044	0.003	0.001
69	-0.022	-0.037	-0.041	-0.028	-0.021
70	-0.021	0.029	0.076	0.027	0.027
71	-0.033	-0.005	-0.004	-0.022	0.006
72	0.074	-0.295	-0.335	-0.209	-0.309
73	-0.024	-0.019	-0.056	-0.025	0.008
74	0.054	-0.609	-0.661	-0.435	-0.614
75	0.001	-0.008	-0.019	-0.014	-0.040
76	0.017	-0.047	-0.055	-0.055	-0.036
77	-0.032	0.016	-0.016	-0.026	-0.039
78	0.153	-0.029	-0.004	-0.022	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	51	52	53	55
51	1.000			
52	0.536	1.000		
53	0.480	0.506	1.000	

54	0.420	0.417	0.383	1.000	
55	0.616	0.653	0.555	0.463	1.000
56	0.581	0.622	0.546	0.421	0.709
57	0.585	0.584	0.501	0.411	0.666
58	0.354	0.358	0.361	0.274	0.389
59	-0.066	-0.032	-0.055	-0.049	-0.063
60	0.006	-0.028	0.018	0.043	0.004
61	0.031	-0.002	-0.034	-0.034	0.044
62	-0.061	-0.029	-0.015	0.008	-0.053
63	-0.011	-0.005	0.014	-0.014	-0.017
64	-0.014	0.053	0.036	0.049	0.007
65	0.013	-0.066	-0.020	-0.015	0.018
66	-0.009	0.027	-0.082	-0.032	-0.001
67	-0.013	-0.025	0.000	-0.077	0.008
68	-0.017	0.023	0.020	0.036	-0.106
69	0.019	-0.013	-0.035	-0.003	-0.024
70	0.009	0.048	0.041	0.050	-0.009
71	-0.030	-0.002	0.022	-0.034	-0.007
72	-0.268	-0.264	-0.236	-0.206	-0.326
73	-0.025	-0.050	-0.008	-0.027	-0.042
74	-0.552	-0.580	-0.476	-0.411	-0.640
75	-0.469	-0.030	-0.010	-0.025	-0.032
76	-0.060	-0.096	-0.057	-0.072	-0.053
77	0.002	-0.027	-0.031	-0.060	-0.018
78	0.007	-0.012	-0.004	-0.039	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.644	1.000			
58	0.400	0.353	1.000		
59	-0.051	-0.080	-0.020	1.000	
60	-0.034	0.006	0.025	-0.027	1.000
61	0.003	0.055	-0.048	-0.019	0.029
62	-0.041	-0.033	-0.076	0.002	0.003
63	-0.021	0.003	0.022	0.031	0.032
64	0.020	-0.028	0.019	0.017	-0.026
65	0.025	0.002	-0.026	-0.061	0.001
66	0.002	-0.020	-0.037	-0.026	-0.021
67	0.009	0.023	-0.015	-0.026	-0.020
68	-0.017	-0.067	0.064	0.016	-0.039
69	-0.095	-0.003	0.043	0.020	0.048

70	0.013	-0.033	0.044	0.046	-0.073
71	0.002	-0.026	-0.027	-0.029	0.052
72	-0.326	-0.279	-0.206	0.005	-0.031
73	-0.024	-0.005	-0.017	0.028	0.031
74	-0.612	-0.568	-0.367	0.064	0.006
75	-0.014	-0.017	-0.020	0.020	-0.003
76	-0.029	-0.067	-0.063	0.014	0.018
77	-0.018	-0.023	-0.053	0.014	-0.016
78	-0.046	-0.018	-0.076	-0.017	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.065	1.000			
63	-0.034	0.005	1.000		
64	-0.073	0.036	0.012	1.000	
65	0.066	0.024	-0.041	-0.038	1.000
66	0.056	-0.016	0.018	-0.016	0.022
67	0.011	0.001	0.005	-0.028	0.042
68	-0.130	0.001	0.002	0.044	-0.058
69	0.068	-0.022	-0.052	-0.098	-0.036
70	-0.127	0.013	0.048	0.020	-0.055
71	-0.037	-0.004	-0.020	0.014	0.034
72	-0.024	-0.008	-0.002	-0.013	-0.025
73	0.039	-0.003	-0.036	-0.030	-0.038
74	-0.005	0.025	0.042	-0.016	0.014
75	-0.029	0.013	0.026	-0.073	-0.007
76	0.023	-0.010	-0.015	-0.595	0.048
77	-0.041	0.013	0.066	-0.035	-0.002
78	-0.017	0.047	-0.017	0.003	-0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.075	1.000			
68	-0.046	-0.017	1.000		
69	0.010	-0.008	-0.008	1.000	
70	-0.026	-0.045	0.143	-0.064	1.000
71	0.045	0.023	-0.049	-0.032	0.016
72	0.036	-0.036	0.035	0.014	0.037

73	0.003	0.059	-0.030	0.019	-0.047
74	0.005	-0.033	-0.014	-0.008	-0.025
75	-0.006	-0.009	0.043	0.008	-0.027
76	-0.009	0.017	-0.038	0.026	0.006
77	-0.010	0.033	0.007	-0.005	0.096
78	0.009	-0.015	-0.024	0.001	-0.002

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.003	1.000			
73	-0.004	-0.109	1.000		
74	-0.025	0.293	0.012	1.000	
75	0.001	0.021	0.032	0.043	1.000
76	0.011	0.032	-0.019	0.049	0.017
77	0.020	-0.066	0.003	0.027	-0.013
78	0.007	0.042	-0.028	0.026	-0.014

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	-0.006	1.000	
78	-0.034	0.175	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.023	73
200	1.010	10
300	1.011	43



400	1.016	43
500	1.019	39
600	1.010	43
700	1.003	43
800	1.002	61
900	1.004	73
1000	1.004	61

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144

108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915

DUTIES15	0.915	0.915	0.915	0.915	0.915
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	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		

PRESS15	0.915	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	

FEL		43.091	0.291	0.000	22.41%	0.000	15.000	35.000
	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-13.767 72.494

Posterior Predictive P-Value 0.085

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON						
PHY15		0.972	0.071	0.000	0.840	1.110	*
CHOICE15		-0.069	0.025	0.003	-0.121	-0.021	*
BULLY15		0.032	0.048	0.262	-0.063	0.121	
DUTIES15		-0.031	0.028	0.137	-0.086	0.023	
PRESS15		-0.033	0.026	0.108	-0.081	0.021	
KES15		0.226	0.045	0.000	0.130	0.316	*
KES15	WITH						
PHY15		0.052	0.004	0.000	0.044	0.059	*
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073	*
BULLY15		0.058	0.004	0.000	0.050	0.065	*
PRESS15		0.100	0.008	0.000	0.085	0.116	*
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092	*
PHY15	WITH						
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022	*
BULLY15		0.012	0.003	0.001	0.005	0.018	*
PRESS15		0.039	0.007	0.000	0.026	0.052	*
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024	*
CHOICE15	WITH						
BULLY15		-0.058	0.007	0.000	-0.072	-0.044	*
PRESS15		-0.087	0.015	0.000	-0.117	-0.060	*
DUTIES15		0.173	0.014	0.000	0.145	0.200	*
BULLY15	WITH						
PRESS15		0.105	0.007	0.000	0.091	0.119	*
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066	*
PRESS15	WITH						
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158	*
Means							
PHY15		0.002	0.006	0.373	-0.011	0.015	
KES15		0.001	0.007	0.433	-0.014	0.015	
CHOICE15		-0.002	0.015	0.457	-0.031	0.027	
BULLY15		0.000	0.007	0.471	-0.013	0.014	
PRESS15		0.001	0.014	0.481	-0.027	0.027	
DUTIES15		-0.001	0.013	0.474	-0.028	0.026	
Variances							
PHY15		0.233	0.005	0.000	0.224	0.242	*

KES15	0.290	0.006	0.000	0.278	0.301	*
CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.569	0.777	0.000	2.276	5.271
EAT		4.187	0.827	0.000	2.877	6.122
ALC		2.827	0.844	0.000	1.460	4.718
PHY		3.778	0.815	0.000	2.475	5.596
PSY		3.870	0.817	0.000	2.618	5.742
SMO		4.366	0.998	0.000	2.713	6.730
TER		3.119	0.824	0.000	1.753	4.993
BEN		2.200	0.731	0.000	0.888	3.809
HPR		4.257	0.963	0.000	2.483	6.254
SPR		3.966	0.819	0.000	2.579	5.844
CUL		3.558	0.775	0.000	2.324	5.341
FEL		79.268	31.807	0.003	23.560	155.827

SING	BY					
HPR		1.000	0.000	0.000	1.000	1.000

PHYCAT16	ON					
PROG		-0.488	0.215	0.009	-0.939	-0.102
SING		-0.061	0.124	0.255	-0.340	0.176

PROG	WITH					
SING		0.000	0.028	0.499	-0.058	0.057

Intercepts						
ACC		0.465	0.072	0.000	0.317	0.602
ACT		0.115	0.140	0.210	-0.162	0.396
EAT		0.309	0.151	0.022	0.017	0.630
ALC		0.048	0.155	0.381	-0.245	0.363
PHY		0.202	0.150	0.079	-0.101	0.520
PSY		0.092	0.151	0.259	-0.193	0.408
SMO		0.325	0.187	0.045	-0.057	0.689
TER		0.187	0.155	0.110	-0.111	0.494
BEN		0.041	0.137	0.385	-0.237	0.317
HPR		0.225	0.160	0.079	-0.083	0.536



SPR	0.210	0.151	0.082	-0.070	0.512	
CUL	0.022	0.144	0.443	-0.260	0.310	
FEL	42.569	5.592	0.000	31.960	53.542	*
Thresholds						
PHYCAT16\$1	1.333	0.040	0.000	1.256	1.417	*
Variances						
PROG	0.056	0.018	0.000	0.032	0.104	*
SING	0.208	0.099	0.000	0.081	0.453	*
Residual Variances						
PHYCAT16	0.012	0.011	0.000	0.001	0.042	*
ACC	0.251	0.052	0.000	0.174	0.376	*
ACT	0.446	0.101	0.000	0.302	0.697	*
EAT	0.294	0.078	0.000	0.179	0.484	*
ALC	0.879	0.184	0.000	0.611	1.323	*
PHY	0.470	0.106	0.000	0.312	0.729	*
PSY	0.422	0.099	0.000	0.271	0.652	*
SMO	0.806	0.185	0.000	0.530	1.242	*
TER	0.770	0.162	0.000	0.529	1.159	*
BEN	0.769	0.155	0.000	0.531	1.142	*
HPR	0.199	0.114	0.000	0.023	0.463	*
SPR	0.418	0.097	0.000	0.277	0.657	*
CUL	0.449	0.099	0.000	0.299	0.688	*
FEL	1461.298	310.738	0.000	1026.114	2247.624	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Posterior	One-Tailed	95% C.I.		Significance	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%		
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.367	0.463	*
CHOICE15		-0.063	0.023	0.003	-0.111	-0.019	*
BULLY15		0.014	0.021	0.262	-0.027	0.053	
DUTIES15		-0.025	0.023	0.137	-0.071	0.019	
PRESS15		-0.029	0.023	0.108	-0.072	0.018	
KES15		0.108	0.021	0.000	0.063	0.150	*

KES15	WITH					
PHY15		0.198	0.014	0.000	0.171	0.225 *
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131 *
BULLY15		0.219	0.013	0.000	0.193	0.245 *
PRESS15		0.186	0.013	0.000	0.159	0.212 *
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185 *
PHY15	WITH					
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044 *
BULLY15		0.050	0.014	0.001	0.022	0.078 *
PRESS15		0.081	0.014	0.000	0.054	0.107 *
DUTIES15		-0.080	0.014	0.000	-0.109	-0.052 *
CHOICE15	WITH					
BULLY15		-0.115	0.014	0.000	-0.141	-0.087 *
PRESS15		-0.084	0.014	0.000	-0.112	-0.058 *
DUTIES15		0.179	0.014	0.000	0.152	0.205 *
BULLY15	WITH					
PRESS15		0.214	0.013	0.000	0.189	0.239 *
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147 *
PRESS15	WITH					
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173 *
Means						
PHY15		0.004	0.013	0.373	-0.022	0.031
KES15		0.002	0.014	0.433	-0.026	0.028
CHOICE15		-0.002	0.014	0.457	-0.030	0.026
BULLY15		0.001	0.014	0.471	-0.026	0.029
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.014	0.474	-0.030	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000

Between Level

PROG	BY						
ACC		0.425	0.060	0.000	0.327	0.555	*
ACT		0.784	0.064	0.000	0.625	0.881	*
EAT		0.879	0.042	0.000	0.775	0.939	*
ALC		0.588	0.108	0.000	0.345	0.757	*
PHY		0.797	0.060	0.000	0.650	0.884	*
PSY		0.819	0.056	0.000	0.688	0.901	*
SMO		0.759	0.071	0.000	0.580	0.864	*
TER		0.646	0.097	0.000	0.416	0.792	*
BEN		0.511	0.121	0.000	0.233	0.703	*
HPR		0.843	0.110	0.000	0.598	1.044	*
SPR		0.824	0.055	0.000	0.690	0.906	*
CUL		0.783	0.065	0.000	0.624	0.880	*
FEL		0.438	0.132	0.003	0.147	0.664	*
SING	BY						
HPR		0.380	0.093	0.000	0.227	0.588	*
PHYCAT16	ON						
PROG		-0.689	0.212	0.009	-0.973	-0.178	*
SING		-0.173	0.278	0.255	-0.695	0.377	
PROG	WITH						
SING		-0.002	0.226	0.499	-0.438	0.442	
Intercepts							
ACC		0.838	0.150	0.000	0.534	1.127	*
ACT		0.107	0.129	0.210	-0.142	0.360	
EAT		0.273	0.132	0.022	0.013	0.555	*
ALC		0.041	0.131	0.381	-0.208	0.292	
PHY		0.182	0.133	0.079	-0.088	0.458	
PSY		0.083	0.131	0.259	-0.173	0.350	
SMO		0.232	0.135	0.045	-0.042	0.492	
TER		0.163	0.133	0.110	-0.096	0.414	
BEN		0.040	0.131	0.385	-0.210	0.305	
HPR		0.189	0.134	0.079	-0.068	0.452	
SPR		0.186	0.131	0.082	-0.060	0.452	
CUL		0.021	0.131	0.443	-0.234	0.283	
FEL		0.987	0.168	0.000	0.668	1.347	*
Thresholds							
PHYCAT16\$1		7.608	2.665	0.000	4.864	14.741	*
Variances							

PROG	1.000	0.000	0.000	1.000	1.000	
SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.422	0.228	0.000	0.045	0.872	*
ACC	0.820	0.053	0.000	0.692	0.893	*
ACT	0.385	0.096	0.000	0.224	0.610	*
EAT	0.228	0.071	0.000	0.119	0.399	*
ALC	0.654	0.120	0.000	0.426	0.881	*
PHY	0.365	0.093	0.000	0.218	0.578	*
PSY	0.329	0.088	0.000	0.189	0.527	*
SMO	0.424	0.103	0.000	0.253	0.664	*
TER	0.583	0.118	0.000	0.372	0.827	*
BEN	0.739	0.115	0.000	0.506	0.946	*
HPR	0.138	0.082	0.000	0.015	0.334	*
SPR	0.322	0.088	0.000	0.179	0.524	*
CUL	0.386	0.098	0.000	0.226	0.610	*
FEL	0.808	0.110	0.000	0.559	0.977	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.022	0.000	0.178	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.578	0.228	0.000	0.128	0.955
ACC	0.180	0.053	0.000	0.107	0.308
ACT	0.615	0.096	0.000	0.390	0.776
EAT	0.772	0.071	0.000	0.601	0.881
ALC	0.346	0.120	0.000	0.119	0.574
PHY	0.635	0.093	0.000	0.422	0.782
PSY	0.671	0.088	0.000	0.473	0.811
SMO	0.576	0.103	0.000	0.336	0.747
TER	0.417	0.118	0.000	0.173	0.628
BEN	0.261	0.115	0.000	0.054	0.494

HPR	0.862	0.082	0.000	0.666	0.985
SPR	0.678	0.088	0.000	0.476	0.821
CUL	0.614	0.098	0.000	0.390	0.774
FEL	0.192	0.110	0.000	0.023	0.441

# TECHNICAL 1 OUTPUT

## PARAMETER SPECIFICATION FOR WITHIN

TAU  
PHYCAT16  
\_\_\_\_\_  
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
--------	---------	----------

PHYCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
	PRESS15
PRESS15	<u>0</u>
DUTIES15	0

ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>
				<u>4</u>

ALPHA	
	PRESS15
	<u>5</u>
	<u>6</u>

BETA				
	PHYCAT16	PHY15	KES15	CHOICE15
	<u></u>	<u></u>	<u></u>	<u></u>

PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

# TAU

PHYCAT16

78

NU

PHYCAT16

ACC

ACT

EAT

ALC

0

34

35

36

37

NU

PHY

PSY

SMO

TER

BEN

38

39

40

41

42

NU

HPR

SPR

CUL

FEL

43

44

45

46

LAMBDA

PROG

SING

PHYCAT16

PHYCAT16

0

0

0

ACC

0

0

0

ACT

47

0

0

EAT

48

0

0

ALC

49

0

0

PHY

50

0

0

PSY

51

0

0

SMO

52

0

0

TER

53

0

0

BEN

54

0

0

HPR

55

0

0

SPR

56

0

0

CUL

57

0

0

FEL

58

0

0

THETA

PHYCAT16

ACC

ACT

EAT

ALC



PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA				
	HPR	SPR	CUL	FEL
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

ALPHA		
PROG	SING	PHYCAT16
0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

	TAU
	PHYCAT16
	<u>0.000</u>

	NU				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

	NU	
	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000

KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
PHYCAT16	1.000				
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15

PRESS15	<u>0.501</u>	
DUTIES15	0.000	<u>0.430</u>

STARTING VALUES FOR BETWEEN

TAU	
PHYCAT16	
	<u>1.110</u>

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<u>0.000</u>	<u>0.485</u>	<u>0.224</u>	<u>0.466</u>	<u>0.673</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>0.342</u>	<u>0.251</u>	<u>0.347</u>	<u>0.385</u>	<u>0.212</u>

NU	HPR	SPR	CUL	FEL
	<u>0.409</u>	<u>0.433</u>	<u>-0.067</u>	<u>45.726</u>

	LAMBDA		
	PROG	SING	PHYCAT16
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>1.000</u>
ACC	1.000	0.000	0.000
ACT	1.000	0.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	0.000	0.000
PSY	1.000	0.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000

BEN	1.000	0.000	0.000
HPR	1.000	1.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	0.000	0.000
FEL	1.000	0.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
HPR	0.426			

SPR	0.000	0.361		
CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG		SING	PHYCAT16
	0.000	0.000	0.000

	BETA		
	PROG	SING	PHYCAT16
	0.000	0.000	0.000
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

	PSI		
	PROG	SING	PHYCAT16
	1.000		
PROG	0.000	1.000	
SING	0.000	0.000	1.000
PHYCAT16	0.000	0.000	1.000

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity

2508



Parameter 59~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.411729D-04				
2	0.918529D-05	0.541391D-04			
3	-0.847454D-05	-0.192263D-04	0.220881D-03		
4	0.153809D-05	0.975452D-05	-0.126580D-04	0.461425D-04	
5	0.710985D-05	0.190825D-04	-0.193839D-04	0.186907D-04	0.190735D-03
6	-0.567795D-05	-0.160725D-04	0.360713D-04	-0.159674D-04	-0.417551D-04
7	0.624706D-05	0.293108D-05	0.281420D-05	-0.778519D-05	-0.291843D-04
8	0.694967D-05	-0.442918D-05	-0.677774D-05	-0.535579D-05	-0.310031D-04
9	0.313781D-05	0.611890D-05	0.420813D-05	0.652905D-05	0.206821D-05
10	0.230964D-06	0.126877D-04	0.183167D-04	0.119529D-04	0.124656D-04
11	0.383237D-05	0.187857D-05	-0.158830D-07	0.797787D-06	0.152598D-04
12	-0.356104D-05	-0.239687D-05	-0.392196D-05	-0.683428D-05	0.149478D-04
13	0.428813D-06	0.719526D-06	-0.151191D-05	0.152855D-06	0.149523D-05
14	-0.693765D-06	0.125662D-05	-0.127051D-05	-0.389558D-07	-0.806670D-06
15	-0.278725D-06	0.409179D-06	-0.338121D-05	0.802631D-06	0.158033D-05
16	-0.181867D-05	-0.142119D-05	-0.443731D-05	0.601297D-06	-0.388317D-05

17	-0.214941D-06	-0.140353D-05	0.647359D-05	-0.161601D-05	-0.538414D-06
18	0.227657D-05	0.970875D-05	-0.990152D-05	0.180354D-05	0.439481D-05
19	-0.658850D-06	-0.503535D-06	0.992832D-06	0.440673D-06	-0.290619D-05
20	0.837359D-08	-0.695534D-06	-0.131009D-05	-0.161462D-06	-0.121168D-05
21	-0.177841D-06	0.878819D-06	0.267034D-05	0.151636D-05	0.190652D-05
22	-0.801887D-06	-0.187299D-06	-0.112296D-05	0.887627D-06	0.574410D-06
23	-0.387161D-06	0.629156D-06	-0.192619D-05	0.399994D-06	-0.254405D-05
24	0.571886D-06	-0.768237D-06	0.247501D-05	-0.167701D-05	0.721125D-06
25	-0.400328D-05	0.532027D-05	-0.203888D-05	-0.873364D-06	0.929196D-05
26	-0.213221D-06	-0.983923D-06	0.204190D-05	0.978641D-06	-0.291406D-05
27	-0.151866D-05	-0.900220D-05	0.115183D-04	0.205900D-05	-0.110982D-04
28	-0.117164D-05	-0.717534D-06	0.192298D-06	0.783305D-07	0.702378D-07
29	-0.192376D-05	-0.120077D-05	0.299425D-05	-0.171026D-05	-0.488265D-05
30	0.129802D-05	0.281205D-05	-0.332468D-05	0.124086D-05	-0.648761D-05
31	0.161470D-06	0.796738D-06	-0.101244D-06	-0.250077D-06	0.978557D-08
32	-0.142169D-05	0.384176D-05	0.153502D-06	-0.122974D-05	0.414887D-05
33	0.258992D-05	-0.322367D-05	-0.214990D-04	0.399177D-05	0.746915D-06
34	-0.186001D-04	-0.146670D-04	0.206551D-04	-0.697263D-05	0.346275D-04
35	-0.277067D-04	-0.521687D-05	0.505302D-04	0.257456D-05	0.445472D-04
36	0.466794D-05	0.405447D-05	0.445799D-04	0.234777D-04	0.100606D-03
37	0.108306D-04	-0.385778D-04	0.438851D-04	-0.121764D-04	0.586629D-04
38	-0.589833D-05	-0.910411D-05	0.541643D-04	0.158231D-04	-0.105187D-05
39	-0.153440D-04	-0.761485D-05	-0.517612D-04	0.112853D-04	0.559680D-04
40	0.367138D-04	-0.186492D-05	0.356093D-04	0.251683D-04	0.471358D-04
41	-0.216757D-04	0.309260D-04	-0.562350D-05	0.183467D-04	0.488512D-04
42	0.391297D-04	-0.348587D-04	0.114210D-03	-0.486531D-05	0.232061D-04
43	0.200215D-04	0.263738D-05	0.702248D-04	0.345584D-04	0.862167D-04
44	-0.196564D-04	-0.172345D-05	0.924243D-05	0.178887D-04	0.104035D-03
45	0.362474D-05	-0.414947D-05	0.257613D-05	0.415179D-05	0.930814D-04
46	-0.581929D-04	0.495165D-03	0.397875D-03	0.138185D-02	0.247659D-02
47	0.614252D-04	0.103905D-03	-0.187744D-03	-0.370713D-05	0.275169D-03
48	0.129988D-03	0.213536D-03	-0.158675D-03	0.152633D-03	0.724966D-04
49	0.780877D-05	0.173112D-03	0.765962D-04	-0.732765D-05	0.424134D-03
50	0.696631D-04	0.235566D-03	-0.417491D-03	0.106653D-03	-0.896458D-06
51	0.393965D-04	0.211989D-03	-0.555577D-03	0.245066D-03	0.218528D-03
52	0.167332D-03	0.110186D-03	-0.857698D-04	-0.757109D-04	-0.233570D-04
53	-0.235577D-05	0.120157D-03	-0.390648D-03	-0.106180D-04	-0.151251D-03
54	0.191889D-03	0.328057D-03	-0.472534D-03	0.590684D-04	0.205252D-03
55	0.316914D-04	-0.269113D-05	-0.293634D-03	-0.939709D-04	0.212885D-03
56	0.342754D-03	0.350706D-03	-0.268940D-03	0.155065D-03	0.203752D-03
57	0.988499D-04	0.290477D-03	-0.468169D-03	-0.191121D-04	0.197053D-03
58	-0.864182D-03	0.687713D-02	-0.183693D-01	0.960662D-02	0.977230D-02
59	-0.603506D-05	0.719209D-05	0.369931D-04	0.186123D-05	-0.402576D-04
60	0.229970D-04	0.327682D-04	-0.735598D-04	0.130423D-04	0.607506D-04

61	0.827957D-05	-0.199211D-05	-0.265315D-04	-0.205690D-04	-0.239386D-04
62	0.732685D-05	0.753932D-04	-0.357160D-05	0.850642D-05	-0.111380D-04
63	-0.386866D-05	-0.294938D-04	0.563314D-04	-0.102315D-05	0.587002D-05
64	0.514224D-04	0.259843D-04	0.227530D-04	-0.848837D-05	0.333095D-05
65	0.241179D-05	-0.963417D-05	0.273794D-04	0.139227D-04	0.472974D-04
66	0.657554D-04	-0.179894D-04	0.678438D-05	0.399502D-05	-0.963211D-04
67	-0.862329D-05	-0.268969D-04	-0.624598D-04	-0.747593D-05	-0.714183D-04
68	0.204070D-04	0.100503D-04	0.591145D-04	0.203778D-06	-0.911115D-04
69	-0.874104D-05	-0.458362D-05	-0.346903D-04	-0.430194D-05	0.335468D-04
70	-0.226729D-04	-0.186922D-04	0.750285D-04	-0.140005D-04	-0.189341D-04
71	-0.141480D-02	0.738052D-01	-0.912801D-01	0.996109D-01	0.119753D+00
72	0.391441D-04	0.263988D-04	-0.137022D-04	0.301497D-05	-0.462740D-04
73	0.259523D-05	0.224923D-04	-0.184077D-04	0.223084D-04	-0.727996D-05
74	-0.322488D-07	-0.371258D-05	0.481052D-05	0.143179D-05	-0.365106D-05
75	0.356204D-05	0.599263D-05	0.699599D-05	0.452186D-05	0.688252D-06
76	0.423409D-05	0.133247D-04	-0.461274D-04	0.117312D-04	0.576182D-04
77	-0.197681D-05	-0.377623D-05	0.548881D-05	0.543024D-06	0.437515D-05
78	0.530601D-05	-0.805007D-06	-0.105665D-04	-0.446470D-05	0.890455D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177355D-03				
7	0.270989D-04	0.500468D-02			
8	-0.258325D-04	-0.373411D-03	0.203821D-02		
9	-0.156176D-04	0.281455D-04	0.133238D-03	0.632060D-03	
10	0.550906D-05	-0.133092D-03	-0.311023D-03	0.159214D-04	0.228062D-02
11	-0.123990D-04	-0.984962D-05	-0.164267D-03	0.148186D-04	-0.213902D-03
12	0.128366D-04	0.466088D-04	0.189878D-03	-0.106726D-03	0.791733D-04
13	0.269476D-07	0.969954D-05	0.210341D-05	-0.257198D-05	-0.572652D-06
14	-0.186354D-08	0.262227D-05	-0.522852D-05	-0.436354D-05	0.104634D-04
15	-0.217708D-05	-0.139470D-04	-0.386955D-05	-0.368146D-05	0.909406D-05
16	-0.158894D-05	-0.123704D-04	0.773599D-05	0.175314D-05	0.187098D-05
17	-0.118672D-05	0.754029D-05	-0.492494D-05	-0.951427D-06	0.423609D-05
18	-0.383438D-05	-0.163980D-04	-0.202870D-04	-0.230227D-04	-0.203349D-04
19	0.884079D-06	-0.873782D-05	0.289452D-05	0.627948D-06	0.425874D-05
20	0.614592D-06	0.805869D-06	-0.172057D-05	0.143384D-07	0.664142D-05
21	-0.147508D-05	0.108969D-04	-0.203802D-05	0.384521D-05	-0.117189D-04
22	-0.294382D-05	0.733821D-05	0.763776D-06	-0.109294D-05	0.925142D-06
23	-0.126401D-05	0.271167D-05	0.194607D-04	0.224187D-05	0.104947D-04
24	0.218651D-05	-0.266022D-05	-0.255828D-05	-0.614906D-05	0.916300D-05
25	0.179748D-05	-0.285835D-04	-0.843881D-05	0.226562D-05	0.156858D-04
26	-0.338520D-05	0.397544D-05	-0.606945D-05	0.280091D-06	-0.298041D-05

27	0.958244D-06	-0.224973D-04	-0.963207D-05	0.723861D-05	0.315708D-04
28	0.111071D-05	0.226317D-04	-0.109669D-04	-0.182310D-05	-0.537575D-05
29	0.335803D-05	0.169975D-04	-0.167510D-04	0.845095D-06	0.798782D-05
30	-0.108838D-05	-0.252043D-04	-0.871725D-05	-0.403483D-05	-0.167057D-04
31	0.320704D-05	0.884043D-06	0.143113D-06	0.752939D-06	0.349487D-05
32	0.198680D-05	0.391689D-04	0.115932D-05	0.128021D-04	-0.306502D-06
33	-0.129474D-05	0.114343D-04	-0.126413D-04	0.495541D-05	-0.840656D-05
34	0.159179D-04	-0.100679D-03	0.384232D-04	-0.757565D-04	-0.812238D-04
35	0.439082D-04	-0.303335D-03	0.252455D-03	0.274941D-04	-0.560081D-04
36	0.234814D-04	-0.260241D-03	0.281280D-03	0.205173D-03	0.201559D-04
37	0.795632D-04	-0.669438D-03	0.263344D-03	0.791809D-04	-0.372289D-04
38	0.247568D-04	0.263837D-03	0.102536D-03	0.136950D-03	0.128967D-04
39	0.789063D-04	-0.109192D-03	0.164267D-03	0.156079D-03	-0.990968D-04
40	0.186266D-04	-0.450041D-03	0.426989D-03	0.420232D-04	-0.280491D-04
41	-0.920080D-05	-0.581247D-03	0.195300D-03	0.140738D-03	-0.633785D-04
42	-0.666605D-04	-0.200651D-03	0.630714D-04	0.425683D-04	0.305268D-04
43	-0.611919D-05	-0.351281D-03	0.302280D-03	0.114326D-03	-0.775017D-04
44	0.213438D-04	-0.251315D-03	0.247308D-03	0.131744D-03	-0.908016D-04
45	0.100253D-04	-0.619062D-03	0.315915D-03	0.139853D-03	-0.140650D-03
46	-0.573860D-03	-0.724269D-02	0.499550D-02	0.225871D-02	0.837479D-02
47	0.665546D-04	-0.179551D-02	0.145192D-02	0.624759D-05	-0.201465D-03
48	0.976980D-04	-0.191364D-02	0.129473D-02	-0.208386D-03	0.159622D-02
49	-0.733524D-04	0.195926D-02	0.139921D-02	-0.447894D-03	-0.153901D-03
50	-0.150014D-03	-0.127359D-02	0.663911D-03	-0.137619D-03	0.191458D-02
51	0.131781D-03	-0.244806D-02	0.957975D-03	0.320983D-04	0.192103D-03
52	0.660212D-04	0.474884D-03	0.124311D-02	-0.406009D-03	0.343901D-03
53	0.137354D-04	-0.973251D-03	0.710860D-03	-0.744907D-03	0.263268D-03
54	0.135099D-04	0.128757D-02	-0.311575D-03	-0.660686D-03	0.171209D-02
55	0.430995D-04	-0.190897D-02	0.694109D-03	0.576681D-03	-0.299605D-03
56	-0.190697D-04	-0.122232D-02	0.148307D-02	0.913838D-04	-0.492005D-03
57	0.226269D-03	-0.224178D-02	0.768167D-03	-0.345795D-04	0.147141D-02
58	0.303628D-02	-0.117005D+00	0.538507D-01	0.810634D-03	0.750456D-02
59	0.283436D-04	0.317692D-04	0.488109D-04	0.329637D-04	0.527187D-04
60	-0.336241D-04	0.124889D-03	0.301920D-04	-0.975114D-04	-0.963577D-06
61	0.537428D-04	0.784410D-04	-0.108165D-04	0.531620D-04	-0.637569D-05
62	-0.337725D-04	0.324135D-03	-0.101600D-03	0.700242D-04	0.540794D-04
63	0.148990D-04	0.113581D-03	0.101176D-03	-0.712221D-05	-0.502135D-04
64	0.337819D-04	0.206393D-03	0.102258D-03	0.132871D-04	-0.639882D-04
65	-0.606598D-05	-0.157290D-03	-0.121543D-03	0.109432D-03	0.516715D-04
66	0.449262D-04	0.142352D-05	0.251350D-03	-0.114113D-03	-0.273258D-03
67	0.128948D-04	-0.258662D-03	0.843924D-04	-0.413207D-04	-0.196807D-03
68	-0.906119D-05	-0.455723D-03	-0.112610D-03	-0.631585D-04	0.152977D-04
69	-0.111337D-04	-0.109172D-03	0.728263D-05	0.114964D-03	-0.674458D-04
70	-0.229172D-04	0.371803D-03	-0.132121D-04	0.716972D-04	-0.296241D-04

71	-0.124481D+00	0.242283D+00	0.137963D+00	-0.213127D+00	-0.233848D+00
72	0.677414D-04	0.126973D-03	-0.451404D-03	-0.351019D-03	-0.159041D-03
73	0.530112D-04	0.350964D-04	-0.319494D-04	0.552477D-04	0.223328D-03
74	-0.589767D-05	0.234957D-04	-0.291713D-04	0.341499D-05	-0.132839D-04
75	0.813148D-06	-0.240691D-04	0.218248D-04	-0.400636D-04	0.297585D-04
76	0.153261D-05	0.402771D-03	0.179873D-04	0.579690D-04	0.233546D-05
77	-0.242780D-06	-0.629164D-05	-0.188902D-04	0.534462D-05	0.136357D-04
78	0.798068D-05	0.103631D-02	0.472090D-04	-0.499881D-05	0.252344D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.680020D-03				
12	0.131906D-03	0.789099D-03			
13	-0.355438D-05	0.657813D-06	0.207529D-04		
14	-0.533633D-06	0.188694D-05	0.413946D-05	0.140575D-04	
15	0.954620D-06	-0.634045D-06	0.410598D-06	0.591181D-05	0.333589D-04
16	0.277133D-06	0.662269D-05	-0.419969D-05	-0.514552D-05	-0.278896D-05
17	-0.307957D-05	0.348355D-05	-0.493078D-06	-0.330342D-05	-0.121348D-04
18	0.674874D-05	0.157206D-05	0.578167D-06	0.116882D-05	0.822293D-05
19	-0.146939D-05	-0.422351D-06	0.995565D-06	0.313049D-05	0.119694D-05
20	-0.165421D-05	-0.302476D-05	-0.106252D-06	0.107838D-05	0.679632D-05
21	-0.124311D-05	-0.203999D-05	-0.672848D-06	-0.857673D-06	-0.900493D-06
22	0.418140D-05	0.431060D-05	0.429621D-06	-0.795104D-07	0.117120D-05
23	-0.958376D-05	-0.174604D-05	0.427740D-05	0.475804D-05	0.385969D-05
24	-0.235275D-05	0.288362D-05	0.802407D-06	0.379765D-05	0.101246D-04
25	0.636253D-05	-0.146302D-04	-0.191569D-05	-0.113776D-05	-0.355444D-05
26	-0.231394D-05	-0.604795D-05	0.870970D-06	0.174970D-05	0.148181D-05
27	-0.230636D-04	0.808332D-05	0.137598D-07	0.477138D-05	0.727705D-05
28	0.230516D-05	0.455292D-05	-0.248726D-05	-0.544806D-05	-0.238740D-05
29	-0.135004D-05	-0.649170D-05	-0.146979D-05	-0.321999D-05	-0.118614D-04
30	-0.918830D-06	-0.320024D-05	0.221648D-05	0.221364D-05	0.281720D-05
31	0.374039D-05	0.198725D-05	-0.945123D-06	-0.234057D-06	-0.236229D-05
32	0.214886D-04	0.194036D-05	-0.232347D-05	-0.242349D-05	-0.507453D-05
33	-0.150395D-04	0.336647D-05	0.552729D-05	0.221932D-05	-0.127999D-05
34	-0.102827D-04	-0.722710D-05	-0.124191D-05	-0.302039D-05	-0.577127D-05
35	0.492627D-04	0.200579D-03	-0.572217D-06	0.223381D-05	-0.279774D-04
36	0.659681D-05	0.131030D-03	0.647950D-05	-0.162835D-04	-0.699648D-05
37	0.570349D-04	0.124716D-03	-0.127957D-04	-0.515701D-05	0.255818D-05
38	0.369072D-04	0.717564D-04	-0.107996D-05	-0.434936D-05	-0.296985D-04
39	0.199123D-03	0.204860D-03	-0.123797D-04	-0.887393D-05	-0.764808D-05
40	0.603343D-04	0.146158D-03	0.691438D-06	-0.162673D-04	-0.428518D-04
41	0.161107D-03	0.202463D-03	0.229142D-04	-0.146852D-05	0.131132D-04

42	0.210261D-03	0.141872D-03	-0.125818D-04	-0.880580D-05	-0.138473D-04
43	0.834325D-04	0.922858D-04	-0.959243D-05	-0.458756D-05	0.504581D-05
44	0.359678D-04	0.288610D-04	-0.381726D-05	-0.135661D-04	-0.192550D-04
45	0.712127D-04	0.181216D-03	-0.219704D-04	-0.215131D-06	-0.103210D-04
46	-0.632336D-02	0.397816D-02	0.651511D-04	-0.485858D-03	0.604378D-03
47	0.480789D-04	0.641282D-03	-0.235614D-05	-0.122571D-03	0.841496D-04
48	-0.174933D-03	0.144013D-02	-0.200189D-04	-0.138622D-03	0.388372D-05
49	-0.227902D-03	0.111910D-02	-0.484765D-04	-0.740204D-04	0.923788D-04
50	0.389490D-05	0.137647D-03	-0.335919D-04	-0.434654D-04	0.231753D-04
51	-0.399641D-04	0.655427D-03	-0.107316D-03	-0.153744D-03	-0.715490D-05
52	-0.390074D-03	0.789489D-03	-0.933778D-04	-0.790452D-04	-0.219108D-04
53	0.293473D-03	0.708254D-03	-0.859553D-04	-0.158810D-03	-0.763245D-04
54	0.787015D-04	0.629685D-03	-0.686182D-04	0.172748D-04	0.933953D-04
55	0.167637D-03	0.664562D-03	-0.203777D-04	-0.105918D-03	-0.847981D-04
56	0.366942D-03	0.639713D-03	0.422030D-04	-0.806206D-04	0.136234D-05
57	-0.462303D-03	0.633072D-03	0.971712D-04	-0.350221D-04	0.294212D-04
58	-0.104275D-01	0.747289D-02	0.212901D-02	-0.103281D-02	-0.387767D-02
59	0.671011D-05	0.634195D-04	-0.339376D-05	-0.879839D-06	0.182099D-05
60	-0.347728D-05	0.148489D-03	-0.574075D-05	-0.175074D-04	-0.179135D-04
61	-0.222870D-04	-0.680131D-04	-0.413862D-05	-0.637336D-05	-0.294672D-04
62	-0.273206D-03	-0.186963D-03	-0.121868D-04	-0.575547D-05	-0.343269D-04
63	0.238267D-05	0.117867D-03	0.149954D-04	-0.586823D-06	0.255430D-04
64	0.830882D-04	0.228615D-05	0.230030D-05	0.415001D-05	-0.153139D-04
65	0.215105D-04	0.207867D-04	0.200619D-04	-0.256694D-04	-0.493062D-04
66	0.109014D-03	0.183670D-03	-0.715530D-05	0.660389D-05	0.379570D-04
67	-0.125938D-04	0.135271D-03	-0.156955D-04	-0.443388D-05	0.559328D-05
68	-0.508632D-04	0.601510D-04	-0.187799D-04	-0.157371D-05	-0.164546D-04
69	-0.136636D-04	-0.170175D-04	-0.117154D-04	0.165948D-05	0.719181D-05
70	0.202332D-03	0.517984D-04	0.343549D-05	0.535013D-05	0.296721D-04
71	0.923783D-01	-0.118710D+00	0.540973D-01	-0.306506D-01	-0.991989D-01
72	-0.227559D-03	-0.268402D-03	-0.538228D-06	0.209671D-04	-0.123403D-04
73	0.339684D-04	0.715904D-05	0.208874D-04	0.172601D-04	-0.149417D-04
74	-0.147754D-05	-0.270208D-04	-0.896353D-06	0.185475D-05	0.331303D-05
75	-0.150935D-04	0.213660D-04	0.778027D-06	-0.168941D-05	0.375698D-05
76	0.651821D-04	-0.733008D-04	0.120093D-04	-0.904477D-05	0.166669D-05
77	0.795620D-05	-0.656595D-05	0.519759D-06	-0.313494D-07	0.556812D-05
78	-0.256678D-04	-0.795946D-06	0.181984D-06	0.331902D-05	-0.661241D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512225D-04				
17	0.119452D-04	0.645764D-04			

18	-0.105639D-04	-0.450328D-04	0.479863D-03		
19	-0.222386D-05	-0.747855D-06	-0.597821D-06	0.117583D-04	
20	-0.134177D-06	-0.488320D-05	0.146763D-05	0.283045D-05	0.143824D-04
21	0.669950D-06	0.158875D-04	-0.263558D-04	-0.176977D-05	-0.473803D-05
22	-0.469381D-06	-0.303760D-06	0.809581D-06	0.677748D-06	0.518919D-05
23	-0.324563D-05	-0.208934D-05	0.133053D-05	0.554545D-05	0.755116D-06
24	-0.157107D-05	-0.936800D-05	0.798621D-05	0.119489D-05	0.599557D-05
25	0.773957D-05	0.276374D-04	-0.364519D-04	0.191504D-05	-0.990719D-06
26	-0.257965D-06	-0.254208D-05	-0.273548D-05	0.206898D-05	0.469152D-05
27	-0.638882D-05	-0.127516D-04	-0.234162D-06	0.193439D-05	0.591613D-05
28	0.984192D-05	0.178598D-05	-0.117167D-05	-0.389985D-05	-0.114655D-05
29	0.307303D-05	0.132428D-04	-0.984668D-05	-0.128041D-05	-0.577032D-05
30	-0.926921D-05	-0.239764D-04	0.780796D-04	0.469979D-06	0.152635D-05
31	0.541890D-06	0.410835D-05	-0.100148D-04	-0.205552D-05	-0.590876D-05
32	0.535972D-05	0.938500D-05	-0.867109D-05	0.464539D-06	-0.381375D-05
33	-0.317795D-05	-0.663910D-05	0.279981D-04	0.148068D-05	0.145076D-05
34	0.255849D-04	-0.101688D-04	-0.599536D-04	0.301989D-06	0.225675D-06
35	0.208878D-04	0.118613D-04	0.618871D-04	0.727111D-05	-0.115105D-04
36	0.376300D-04	-0.475108D-05	0.125544D-03	0.414806D-05	0.103083D-04
37	0.256294D-04	0.145485D-04	-0.777378D-04	0.883536D-05	-0.175954D-04
38	0.389228D-04	0.370694D-04	-0.290257D-04	0.138050D-04	0.275753D-05
39	0.437908D-04	0.313733D-04	-0.372727D-05	0.177540D-04	-0.951301D-05
40	0.282445D-04	0.367790D-04	-0.278091D-04	0.142913D-04	-0.132218D-04
41	0.241284D-04	-0.261692D-04	-0.560774D-04	0.300123D-08	0.554828D-05
42	-0.426525D-04	0.252456D-04	-0.999131D-05	0.232370D-04	-0.248792D-06
43	0.391354D-04	0.723937D-05	-0.197723D-04	0.164558D-04	-0.113684D-04
44	0.535837D-04	0.200017D-04	-0.374764D-04	0.111855D-04	-0.350978D-05
45	0.201976D-04	-0.308539D-04	-0.835419D-05	0.202364D-04	-0.291103D-05
46	0.652182D-03	-0.978977D-03	-0.492110D-02	-0.997039D-03	0.420245D-03
47	0.828678D-04	0.161037D-03	-0.350154D-03	-0.585574D-04	-0.101916D-03
48	-0.437802D-04	0.428408D-04	-0.294764D-03	-0.360322D-04	-0.100694D-03
49	0.889224D-04	0.112881D-03	-0.385622D-03	-0.327314D-04	-0.863707D-04
50	-0.134914D-03	0.515726D-04	-0.277051D-03	0.789530D-04	-0.684307D-04
51	0.368650D-05	0.506775D-04	-0.211099D-03	-0.110352D-04	-0.457775D-04
52	0.697347D-05	0.136586D-03	-0.317471D-03	-0.418999D-04	-0.979793D-04
53	-0.113411D-03	0.110026D-03	-0.158353D-03	-0.311019D-04	-0.864613D-04
54	-0.100973D-03	-0.193663D-03	-0.330736D-03	-0.723847D-04	0.894806D-05
55	-0.299395D-05	0.191990D-03	-0.513235D-03	0.176802D-04	-0.295336D-04
56	-0.435873D-04	0.153006D-03	0.332542D-03	-0.807011D-04	-0.151059D-03
57	-0.868879D-04	0.623981D-04	-0.920709D-04	0.196872D-04	-0.112317D-03
58	-0.304621D-02	0.973140D-02	-0.359510D-01	-0.316174D-02	-0.374595D-02
59	-0.136149D-06	-0.207050D-04	-0.115876D-04	-0.542196D-05	-0.167908D-05
60	0.165766D-04	-0.104028D-04	0.362189D-04	-0.224180D-05	-0.704326D-05
61	-0.350838D-05	0.121948D-06	0.241790D-04	0.689386D-06	-0.433729D-05

62	0.121346D-05	-0.330783D-05	0.177631D-04	0.490774D-05	-0.826530D-06
63	0.332160D-04	0.248904D-04	-0.658663D-04	0.215491D-05	0.660653D-05
64	0.337298D-04	-0.471511D-05	0.461580D-04	0.932550D-05	-0.217299D-05
65	0.353152D-05	0.533266D-04	-0.935562D-04	-0.237887D-04	-0.424877D-04
66	-0.116487D-04	-0.756971D-05	-0.934297D-04	0.219401D-04	-0.135526D-04
67	-0.204159D-04	-0.476200D-05	-0.897951D-05	-0.583002D-05	-0.276650D-04
68	0.366768D-04	0.214952D-04	-0.125087D-03	-0.333721D-05	-0.194409D-04
69	0.131467D-04	0.567372D-04	-0.238183D-04	0.172518D-06	-0.113270D-04
70	0.229033D-04	-0.227977D-04	-0.559067D-05	-0.805803D-06	0.698496D-05
71	-0.116202D+00	-0.269633D-01	0.253149D-01	0.478992D-01	-0.186378D-01
72	0.262156D-04	-0.588897D-06	0.137781D-03	-0.354711D-05	0.573280D-05
73	-0.335887D-05	-0.276790D-04	0.778931D-04	0.141521D-04	0.226435D-04
74	0.122777D-05	-0.465273D-05	0.169256D-04	0.112596D-05	0.296833D-05
75	-0.222974D-05	-0.536433D-06	0.129698D-06	-0.229037D-06	0.369091D-05
76	-0.631736D-05	0.962709D-05	0.645934D-04	0.226905D-05	0.102821D-04
77	0.500369D-06	-0.117555D-05	0.637552D-05	0.182567D-05	0.512916D-05
78	-0.937174D-05	-0.101248D-05	0.211850D-04	0.186311D-05	0.267552D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.517649D-04				
22	-0.572914D-05	0.235136D-04			
23	-0.756548D-06	0.484564D-06	0.442046D-04		
24	-0.339241D-05	0.226910D-05	0.914782D-05	0.576205D-04	
25	0.200890D-04	-0.103502D-05	-0.541424D-05	-0.198198D-04	0.212691D-03
26	-0.283724D-05	0.951320D-05	0.446153D-05	0.121837D-04	-0.934465D-05
27	-0.669622D-05	0.632302D-05	0.181604D-04	0.368917D-04	-0.327580D-04
28	-0.677773D-06	-0.464651D-06	-0.101002D-04	-0.342268D-05	0.462097D-05
29	0.154562D-05	-0.422731D-06	-0.579795D-05	-0.120310D-04	0.970306D-05
30	-0.183241D-04	0.351429D-05	0.511416D-05	0.529212D-05	-0.399016D-04
31	0.612240D-05	-0.755356D-05	-0.150517D-05	-0.593079D-05	0.853755D-05
32	0.176367D-05	0.631163D-06	-0.109662D-04	-0.255343D-04	0.458038D-04
33	-0.391812D-05	0.347016D-06	0.855327D-05	0.594187D-05	-0.209218D-04
34	0.247522D-04	0.935330D-05	0.809579D-05	0.739243D-05	0.185645D-04
35	0.756392D-04	-0.411311D-05	0.249587D-04	-0.478502D-05	-0.197246D-04
36	0.755885D-04	0.135143D-04	0.242188D-04	-0.236321D-04	0.342535D-04
37	0.767418D-04	0.130424D-06	0.378184D-04	-0.247603D-04	0.603995D-04
38	0.845723D-04	-0.594241D-06	0.239977D-04	-0.398501D-04	0.145071D-04
39	0.102979D-03	0.807765D-05	0.371947D-04	-0.418729D-04	0.406391D-04
40	0.101799D-03	-0.741746D-05	0.848922D-04	-0.731088D-05	-0.532550D-06
41	0.851014D-04	0.245685D-04	0.343885D-04	0.788855D-05	0.489458D-05
42	0.462285D-04	0.154905D-04	0.215599D-04	-0.280294D-04	0.647506D-05



43	0.133265D-03	-0.203607D-04	0.229277D-04	-0.394469D-04	0.378210D-04
44	0.873798D-04	0.186747D-05	0.314013D-04	-0.239559D-04	0.258590D-04
45	0.702268D-04	-0.513415D-05	0.529293D-04	-0.100144D-04	0.742056D-04
46	0.295719D-02	-0.272467D-03	0.828968D-03	-0.910176D-03	0.121748D-02
47	-0.156445D-03	0.157026D-04	0.899330D-04	-0.142495D-03	0.263399D-03
48	-0.504014D-04	-0.265946D-04	-0.856083D-04	-0.312930D-03	0.369756D-04
49	-0.109206D-03	0.110029D-03	-0.733956D-04	0.571019D-04	-0.130370D-03
50	-0.178354D-03	-0.800588D-06	-0.131608D-04	-0.236501D-03	0.435547D-03
51	-0.426754D-04	0.350026D-04	0.298003D-04	-0.451391D-03	0.231510D-03
52	-0.844360D-04	-0.101063D-03	-0.128619D-03	-0.416078D-03	0.451104D-03
53	0.745900D-04	-0.385049D-04	-0.919929D-04	-0.264774D-03	0.281704D-04
54	-0.113876D-03	0.400404D-04	-0.116078D-03	-0.977163D-04	0.239353D-03
55	-0.740316D-04	0.400664D-04	-0.750102D-04	-0.172454D-03	-0.282496D-03
56	0.183555D-04	-0.787649D-04	0.535719D-04	-0.142671D-03	0.944045D-04
57	-0.112974D-03	-0.116316D-03	0.561954D-04	-0.313691D-03	0.361489D-03
58	0.792640D-02	-0.197790D-02	0.107671D-02	-0.421734D-02	-0.175830D-02
59	0.115141D-04	-0.468434D-06	-0.407293D-06	0.183366D-04	0.448255D-05
60	0.153938D-04	-0.799860D-06	0.491377D-06	0.113283D-04	0.203673D-04
61	-0.198675D-04	-0.109821D-04	-0.487359D-05	0.130896D-04	-0.107804D-05
62	-0.394375D-04	0.131456D-04	-0.263666D-06	-0.136820D-04	0.221862D-04
63	-0.130588D-07	0.109543D-04	-0.251584D-05	-0.132849D-04	-0.318005D-05
64	-0.461516D-05	0.174528D-05	-0.368218D-04	0.323573D-04	-0.212180D-04
65	0.124570D-04	-0.188822D-04	0.132768D-04	-0.435318D-04	-0.115642D-03
66	-0.203876D-04	-0.297730D-04	0.555564D-04	-0.530923D-04	-0.582652D-04
67	-0.348812D-04	-0.131600D-04	-0.443930D-04	0.550579D-06	-0.486217D-04
68	0.391126D-04	-0.120204D-04	-0.365267D-05	0.148435D-04	0.176931D-04
69	0.249101D-04	-0.631775D-05	0.133870D-05	-0.309910D-04	0.581130D-04
70	-0.119708D-04	0.114381D-04	0.762911D-05	0.138356D-04	0.247183D-05
71	-0.803556D-01	-0.463737D-01	0.377033D-01	-0.232108D-01	-0.178318D+00
72	0.623141D-04	-0.116919D-04	0.450405D-04	0.648574D-05	0.300037D-04
73	-0.677133D-04	0.399444D-04	-0.249549D-04	0.138817D-04	0.659649D-04
74	0.346758D-05	0.115687D-05	0.399735D-05	0.775860D-05	-0.117184D-04
75	0.117169D-05	-0.398111D-06	0.570307D-05	0.829319D-05	0.125027D-04
76	-0.833591D-05	0.160729D-04	0.193366D-04	-0.263524D-04	0.354489D-04
77	-0.551289D-05	0.430576D-05	0.130164D-05	0.505699D-05	0.738747D-06
78	0.164551D-04	0.130595D-05	0.741478D-05	-0.290150D-05	-0.119593D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.490707D-04				
27	0.467502D-04	0.403265D-03			
28	-0.126299D-05	-0.421389D-05	0.405003D-04		

29	-0.285260D-05	-0.116765D-04	0.749649D-05	0.502452D-04	
30	0.183874D-05	0.416464D-05	-0.505827D-05	-0.191631D-04	0.199963D-03
31	-0.919414D-05	-0.926343D-05	0.126718D-05	0.120036D-04	-0.145966D-04
32	-0.191411D-04	-0.807914D-04	0.737346D-05	0.227308D-04	-0.244894D-04
33	0.438240D-05	0.148015D-04	-0.776989D-05	-0.345750D-04	0.613287D-04
34	-0.797437D-05	0.486518D-04	0.768783D-05	-0.505335D-05	-0.492740D-06
35	-0.548053D-04	-0.104392D-03	0.132421D-04	-0.200577D-04	0.965996D-04
36	-0.413835D-04	0.134399D-04	0.185385D-04	-0.617556D-05	0.699997D-04
37	-0.379536D-04	0.166296D-04	-0.743882D-05	-0.134698D-04	0.426981D-05
38	-0.393879D-04	0.101574D-04	-0.622274D-06	0.107831D-04	0.764357D-05
39	-0.549512D-04	-0.489172D-04	-0.103078D-04	0.155397D-05	0.737728D-04
40	-0.433406D-04	-0.233224D-04	-0.511363D-04	-0.186950D-04	0.853660D-04
41	-0.285917D-04	0.121409D-04	-0.231250D-04	-0.379470D-05	0.291290D-04
42	-0.451047D-05	0.360309D-04	-0.277622D-04	-0.267814D-05	0.423405D-04
43	-0.652246D-04	-0.360323D-04	-0.241292D-04	-0.259854D-04	0.110341D-03
44	-0.529737D-04	-0.801640D-04	0.389207D-05	-0.178428D-04	0.241597D-04
45	-0.412084D-04	0.410573D-04	-0.247306D-04	0.120923D-04	0.716688D-04
46	-0.211513D-02	-0.145708D-02	-0.242433D-03	-0.346445D-03	0.110865D-02
47	-0.100318D-03	0.419956D-04	-0.106656D-03	0.544548D-04	-0.564465D-04
48	-0.122429D-03	-0.402623D-03	-0.388677D-04	0.255742D-03	-0.266608D-03
49	0.345761D-04	0.419973D-04	0.224095D-04	0.801328D-04	-0.353318D-03
50	0.512384D-06	-0.286169D-03	-0.127981D-03	0.233968D-03	-0.229186D-03
51	-0.200808D-04	-0.393868D-03	-0.116493D-04	0.132536D-03	-0.197328D-03
52	-0.565156D-04	-0.164685D-03	0.871997D-04	0.395009D-03	-0.570617D-03
53	-0.162471D-03	-0.282415D-03	-0.472956D-04	0.180880D-03	0.243254D-03
54	0.149489D-03	0.258035D-03	-0.135923D-03	-0.942571D-04	-0.107050D-03
55	-0.162546D-03	0.735519D-04	0.510085D-04	0.411657D-03	-0.464776D-03
56	0.150436D-04	-0.464023D-04	-0.845131D-04	0.113271D-03	-0.566264D-03
57	-0.794221D-04	-0.443555D-03	-0.207846D-03	0.975840D-04	-0.153584D-03
58	0.120357D-02	0.111735D-01	-0.559229D-03	0.426183D-02	-0.234716D-01
59	0.499534D-05	-0.386102D-04	0.628416D-05	-0.242186D-05	-0.337361D-04
60	-0.917687D-05	0.598847D-04	0.786330D-05	0.154914D-05	0.789110D-05
61	0.713299D-05	0.720138D-04	0.217139D-04	-0.294860D-04	-0.419562D-04
62	-0.274930D-04	-0.922006D-04	-0.265130D-04	0.351875D-04	0.523367D-04
63	0.998751D-05	0.431259D-04	-0.128968D-04	-0.409879D-04	-0.220301D-04
64	-0.514784D-05	-0.214440D-04	0.541355D-06	0.497505D-05	0.548026D-04
65	-0.597637D-05	0.809605D-04	0.257261D-04	-0.292525D-05	0.120515D-03
66	-0.121910D-04	0.188469D-03	-0.152478D-04	-0.161363D-04	0.936504D-05
67	-0.300617D-04	0.247771D-04	0.197244D-04	0.301836D-04	-0.413362D-04
68	0.643373D-05	-0.710736D-04	0.279386D-04	-0.338576D-04	-0.673373D-04
69	-0.201356D-06	0.256480D-04	0.715002D-05	-0.267551D-04	-0.364045D-04
70	-0.766599D-05	-0.293971D-04	0.121699D-06	-0.136207D-04	-0.226600D-04
71	-0.110790D+00	-0.441202D-01	-0.117857D+00	-0.525246D-01	0.410537D-01
72	-0.320352D-04	-0.520949D-04	-0.605223D-05	-0.539637D-04	0.101243D-03

73	0.227379D-04	0.580561D-04	-0.192060D-05	0.561236D-05	-0.352302D-06
74	0.281844D-05	0.125394D-04	0.302480D-05	-0.447780D-05	0.139910D-04
75	0.641695D-05	-0.243685D-06	-0.519618D-05	-0.132810D-04	0.202137D-06
76	-0.419999D-05	0.611714D-04	-0.213184D-04	0.218791D-04	0.779563D-05
77	0.165647D-05	-0.676561D-06	0.216621D-06	-0.272191D-05	0.173081D-05
78	-0.807966D-05	-0.144459D-05	0.286374D-05	0.740939D-05	-0.173093D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391585D-04				
32	0.200770D-04	0.190386D-03			
33	-0.284327D-04	-0.658413D-04	0.287578D-03		
34	-0.208086D-05	-0.789372D-05	-0.247196D-04	0.521482D-02	
35	0.189190D-04	-0.204161D-04	0.180119D-04	0.274667D-02	0.196644D-01
36	0.624660D-05	-0.130303D-04	0.293309D-04	0.353046D-02	0.141419D-01
37	0.334615D-04	0.932860D-05	0.180595D-04	0.269692D-02	0.909767D-02
38	-0.227361D-05	-0.240781D-04	0.769879D-05	0.333294D-02	0.128990D-01
39	0.157331D-04	0.189244D-04	0.751826D-04	0.353850D-02	0.134282D-01
40	0.906945D-05	-0.299300D-04	0.250333D-04	0.368481D-02	0.151626D-01
41	0.623101D-05	0.171713D-04	0.131099D-04	0.261830D-02	0.104137D-01
42	-0.231742D-04	0.350960D-04	-0.490595D-05	0.162114D-02	0.734563D-02
43	0.305037D-04	-0.867538D-05	0.477875D-04	0.354423D-02	0.141903D-01
44	0.782224D-05	0.220184D-04	0.430925D-04	0.337525D-02	0.134357D-01
45	0.234933D-04	-0.373660D-05	0.339106D-04	0.302122D-02	0.117194D-01
46	0.120618D-02	-0.154810D-02	-0.383014D-03	0.418114D-01	0.236162D+00
47	0.389305D-04	-0.108858D-03	0.115305D-03	0.202172D-02	0.149234D-02
48	0.161376D-03	-0.167576D-03	-0.266058D-03	0.107147D-02	0.372159D-02
49	-0.433437D-05	-0.597393D-04	-0.571645D-03	-0.848932D-03	-0.495867D-03
50	0.156187D-03	-0.135321D-03	-0.393571D-03	0.107588D-02	0.124879D-02
51	0.166757D-03	-0.253176D-04	-0.101672D-03	0.112326D-02	0.225080D-02
52	0.176818D-03	-0.170182D-03	-0.496882D-03	0.278220D-02	0.241776D-02
53	0.243499D-03	-0.361848D-03	-0.234107D-03	0.156379D-02	0.654837D-02
54	0.333978D-04	-0.378937D-03	-0.217132D-04	0.104776D-02	-0.466632D-02
55	0.207261D-03	-0.168989D-03	-0.854144D-03	0.405840D-02	0.433031D-02
56	0.139673D-03	-0.218948D-03	0.151672D-03	0.262866D-02	0.150919D-02
57	0.292211D-03	0.243747D-03	-0.395323D-03	0.122833D-02	-0.282139D-04
58	0.671365D-02	0.703278D-02	-0.337530D-01	0.234142D-01	0.142960D-01
59	0.109963D-04	-0.288935D-04	-0.289645D-04	-0.135908D-03	-0.168988D-03
60	0.249448D-04	0.395278D-04	0.568223D-05	-0.651397D-05	-0.468423D-03
61	0.107090D-04	0.121914D-05	0.474879D-04	-0.253600D-03	-0.386279D-03
62	-0.211669D-04	0.595241D-04	0.836603D-04	0.123391D-04	-0.409947D-03
63	-0.330711D-04	0.538209D-04	0.148761D-04	-0.854577D-04	0.153529D-03

64	-0.230340D-05	-0.217505D-05	0.403948D-04	-0.661823D-04	0.443737D-03
65	-0.205108D-04	0.450688D-04	0.333364D-04	0.556944D-03	0.250889D-03
66	-0.269230D-04	-0.145244D-04	-0.698891D-04	-0.242801D-04	-0.301290D-03
67	0.940532D-05	-0.260587D-04	0.148296D-04	-0.498581D-03	0.722461D-05
68	0.595372D-05	-0.357803D-04	0.255199D-04	0.322426D-03	0.178539D-03
69	-0.117637D-04	-0.575642D-06	0.243338D-04	-0.116321D-03	-0.118263D-03
70	-0.137178D-04	0.220066D-04	-0.536342D-04	-0.373128D-04	0.200844D-03
71	-0.436857D-01	0.161482D+00	-0.183999D+00	0.137418D+00	0.237785D+01
72	-0.489464D-04	-0.179984D-04	0.683361D-04	-0.321271D-03	-0.563026D-03
73	-0.180133D-04	0.518755D-04	-0.385833D-04	-0.250519D-03	-0.704301D-03
74	-0.494302D-05	-0.281101D-06	0.756258D-05	-0.888713D-04	-0.639763D-04
75	-0.352778D-05	-0.233911D-05	0.989861D-05	-0.367984D-05	-0.124762D-03
76	-0.331827D-04	-0.898010D-05	0.883611D-05	0.325249D-04	0.304297D-05
77	-0.121470D-05	0.183781D-05	0.625641D-06	-0.233964D-04	0.160942D-04
78	0.754608D-05	0.421449D-05	-0.191257D-04	0.356888D-03	0.177939D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.226618D-01				
37	0.113138D-01	0.240426D-01			
38	0.158642D-01	0.107044D-01	0.225954D-01		
39	0.161498D-01	0.107018D-01	0.148821D-01	0.227897D-01	
40	0.184530D-01	0.124419D-01	0.172424D-01	0.174178D-01	0.348146D-01
41	0.132637D-01	0.859099D-02	0.118849D-01	0.121596D-01	0.143453D-01
42	0.905084D-02	0.628926D-02	0.858767D-02	0.799430D-02	0.959621D-02
43	0.179051D-01	0.119201D-01	0.163410D-01	0.165582D-01	0.192334D-01
44	0.163571D-01	0.110626D-01	0.153411D-01	0.152891D-01	0.168805D-01
45	0.150288D-01	0.101136D-01	0.135132D-01	0.139662D-01	0.155627D-01
46	0.312910D+00	0.231981D+00	0.274001D+00	0.280825D+00	0.312344D+00
47	0.232529D-02	0.450419D-02	-0.161493D-02	0.360165D-02	0.121850D-02
48	0.258558D-02	0.146580D-02	-0.485449D-03	0.643375D-03	0.334444D-02
49	-0.267921D-02	-0.626294D-02	-0.225475D-02	-0.447099D-02	0.811484D-03
50	-0.579911D-03	0.268484D-02	0.367840D-05	-0.230706D-02	-0.210703D-02
51	-0.471504D-03	0.109330D-02	-0.167650D-02	-0.518452D-03	0.320079D-03
52	-0.714578D-03	0.388322D-02	-0.358896D-02	-0.301356D-02	-0.186181D-02
53	0.288821D-02	0.329541D-02	0.946221D-03	0.380841D-02	0.245435D-02
54	-0.248470D-02	0.231863D-02	-0.244678D-02	-0.116985D-02	-0.198444D-02
55	0.545387D-02	0.548659D-02	-0.212306D-02	0.118921D-02	0.124021D-02
56	0.160277D-02	0.443143D-02	-0.185502D-02	-0.182793D-02	0.506275D-03
57	-0.490427D-03	0.110543D-02	-0.331238D-02	-0.326732D-02	-0.816046D-03
58	-0.634578D-01	0.918463D-01	-0.727037D-01	-0.132397D+00	-0.276455D+00
59	-0.145922D-03	0.576154D-04	-0.745037D-04	0.111227D-03	0.875451D-04

60	-0.164290D-03	-0.126603D-03	-0.169626D-03	-0.264897D-03	0.216564D-03
61	-0.131542D-03	-0.320189D-03	-0.600586D-03	-0.396896D-03	-0.398147D-03
62	-0.857272D-03	0.308600D-03	-0.448091D-03	-0.663786D-03	0.545991D-03
63	-0.266461D-03	0.270605D-03	0.356723D-03	-0.256684D-03	-0.677979D-03
64	0.404949D-03	0.290725D-03	0.399529D-03	0.797535D-03	0.817274D-03
65	0.113552D-02	0.636744D-03	0.593312D-03	0.128478D-02	0.595855D-03
66	-0.152092D-03	0.266964D-04	0.578154D-03	0.181452D-03	0.845957D-03
67	0.418246D-03	0.358705D-03	0.412807D-03	0.650284D-03	-0.268074D-03
68	0.466627D-03	-0.100462D-03	0.552283D-03	0.491130D-03	0.897005D-03
69	-0.274976D-03	-0.137628D-03	0.143636D-03	0.221165D-03	0.437677D-03
70	-0.891147D-04	0.215080D-04	-0.385496D-03	-0.505599D-04	-0.566425D-03
71	0.892493D+00	0.142920D+01	0.118394D+01	0.199391D+01	0.630895D+00
72	-0.639929D-04	0.520939D-03	0.305951D-03	0.364559D-03	0.327051D-03
73	-0.689485D-03	-0.295925D-03	-0.111695D-02	-0.752989D-03	-0.119996D-02
74	-0.563818D-04	-0.164834D-03	0.300302D-04	-0.635995D-04	-0.498719D-04
75	-0.867305D-04	0.189297D-04	0.750406D-04	0.566077D-05	-0.605174D-04
76	-0.261138D-03	-0.988995D-03	-0.210726D-03	-0.414335D-03	-0.650458D-03
77	0.769148D-05	-0.797331D-05	-0.436828D-04	0.972878D-05	0.540162D-04
78	0.199366D-02	0.117248D-02	0.196556D-02	0.200902D-02	0.213816D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.241285D-01				
42	0.621654D-02	0.187184D-01			
43	0.132572D-01	0.898851D-02	0.256085D-01		
44	0.123846D-01	0.804459D-02	0.165765D-01	0.226983D-01	
45	0.109971D-01	0.794396D-02	0.150166D-01	0.139893D-01	0.206600D-01
46	0.248152D+00	0.157183D+00	0.313988D+00	0.275864D+00	0.236735D+00
47	-0.544291D-03	-0.139322D-02	0.232213D-02	-0.419050D-03	0.293899D-02
48	-0.146866D-02	-0.665100D-03	0.463430D-02	0.906558D-03	0.180226D-02
49	-0.205552D-02	-0.137496D-02	-0.189150D-02	-0.300107D-02	-0.151704D-02
50	-0.406680D-02	0.178603D-02	0.113641D-02	-0.154454D-02	-0.250992D-02
51	-0.325145D-02	0.172042D-02	0.276287D-02	-0.664493D-03	0.631543D-03
52	-0.258144D-02	0.160548D-02	0.217824D-02	-0.410408D-02	0.676040D-03
53	-0.363707D-02	0.112488D-02	0.208020D-02	0.149498D-02	0.331398D-03
54	-0.562371D-03	-0.258880D-03	-0.124340D-02	-0.224845D-02	-0.239303D-02
55	-0.307357D-03	0.340350D-02	0.245176D-02	0.168382D-03	0.429335D-02
56	-0.376801D-03	0.422364D-03	0.269016D-02	-0.110250D-03	0.624101D-03
57	-0.964512D-03	-0.212961D-02	0.131908D-02	-0.328437D-03	-0.178956D-02
58	-0.182517D+00	-0.779400D-01	-0.912580D-01	-0.109866D+00	-0.726891D-01
59	-0.749687D-04	0.534068D-04	-0.811970D-04	-0.332927D-03	-0.393864D-05
60	-0.882901D-04	0.104238D-04	-0.427159D-03	-0.229732D-03	-0.171108D-03

61	0.295839D-03	-0.245320D-03	-0.274028D-03	-0.387148D-03	-0.209592D-04
62	-0.817950D-03	0.267910D-03	-0.664644D-03	-0.303419D-03	-0.361241D-03
63	-0.392665D-03	-0.433835D-03	0.752408D-04	0.551683D-04	0.136981D-03
64	0.594389D-03	0.186686D-03	0.382763D-03	0.428685D-03	0.573851D-03
65	0.618205D-03	0.413151D-03	0.660842D-03	0.120849D-02	0.320437D-03
66	0.381134D-03	0.783514D-03	0.695564D-03	0.123332D-03	0.340319D-03
67	0.375122D-03	-0.887756D-03	-0.204950D-05	-0.987554D-04	0.276241D-03
68	0.227863D-03	0.377168D-03	0.818350D-03	0.522083D-03	0.642453D-03
69	-0.547902D-04	0.608582D-03	-0.686592D-05	-0.146545D-03	-0.107270D-03
70	-0.248183D-03	-0.137311D-03	0.195664D-03	-0.426654D-03	-0.235660D-03
71	0.702225D+00	0.511267D+00	0.141838D+01	0.190630D+01	0.105515D+01
72	-0.137876D-02	0.366130D-03	-0.539363D-03	0.701329D-04	-0.197649D-03
73	0.469797D-05	-0.430873D-03	-0.856352D-03	-0.224328D-03	-0.796281D-03
74	0.512762D-06	-0.827259D-04	-0.272896D-04	-0.147146D-04	0.813438D-05
75	0.898808D-04	-0.691423D-04	0.730894D-04	0.387443D-04	-0.220423D-04
76	-0.623212D-03	0.222591D-04	-0.431701D-03	-0.373707D-03	-0.523614D-03
77	0.596782D-04	-0.729051D-04	0.431847D-04	-0.951083D-05	0.208603D-04
78	0.154730D-02	0.954141D-03	0.217031D-02	0.193249D-02	0.165795D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.312546D+02				
47	-0.204370D+00	0.603087D+00			
48	-0.942903D-01	0.449242D+00	0.683475D+00		
49	-0.211391D+00	0.307836D+00	0.339661D+00	0.711836D+00	
50	-0.159428D+00	0.389512D+00	0.475404D+00	0.310116D+00	0.663629D+00
51	-0.854571D-01	0.398647D+00	0.479120D+00	0.320736D+00	0.430897D+00
52	-0.132428D+00	0.483781D+00	0.563809D+00	0.357843D+00	0.500176D+00
53	0.792500D-02	0.326072D+00	0.399782D+00	0.254642D+00	0.353285D+00
54	-0.783013D-01	0.216259D+00	0.276059D+00	0.149357D+00	0.241052D+00
55	0.351562D-01	0.417802D+00	0.492667D+00	0.348825D+00	0.447968D+00
56	-0.207212D+00	0.420154D+00	0.491052D+00	0.312982D+00	0.429927D+00
57	-0.126329D+00	0.346354D+00	0.435076D+00	0.290301D+00	0.383229D+00
58	-0.128784D+02	0.945732D+01	0.108549D+02	0.768190D+01	0.979536D+01
59	0.102733D-03	-0.120782D-02	-0.198707D-02	-0.171982D-02	-0.330904D-02
60	0.118274D-01	-0.597557D-02	-0.398320D-03	0.284575D-03	-0.213615D-02
61	-0.181549D-01	-0.454711D-03	-0.611523D-02	0.772002D-03	-0.271559D-02
62	0.206068D-02	-0.390435D-02	-0.299024D-02	-0.122721D-01	-0.208957D-02
63	-0.958952D-03	0.415386D-03	0.115525D-02	0.703805D-03	-0.504183D-02
64	-0.786148D-02	0.179812D-02	0.321316D-02	-0.373435D-02	-0.101254D-02
65	-0.200929D-02	-0.434644D-02	-0.251584D-02	-0.309757D-02	-0.965365D-03
66	0.396765D-02	0.158178D-02	-0.175324D-02	-0.314751D-02	-0.227343D-02

67	0.776786D-02	0.703181D-02	-0.407606D-03	-0.251226D-03	0.677701D-02
68	-0.251548D-02	-0.108146D-02	-0.189774D-02	-0.297991D-02	-0.311301D-02
69	-0.713617D-02	-0.277370D-02	-0.333083D-02	-0.274721D-02	-0.217409D-02
70	-0.857448D-02	0.141427D-02	0.532600D-02	0.172409D-02	0.173685D-02
71	-0.502457D+02	0.726458D+00	0.768702D+00	-0.425324D+01	0.346375D+01
72	0.819430D-01	-0.467545D-01	-0.548820D-01	-0.354774D-01	-0.487278D-01
73	0.518384D-02	-0.621974D-02	-0.915958D-02	-0.158089D-02	-0.405958D-02
74	0.541187D-02	-0.861165D-02	-0.100607D-01	-0.678088D-02	-0.909052D-02
75	-0.294802D-02	0.710823D-03	0.844383D-03	0.411375D-03	0.393934D-03
76	-0.600585D-02	-0.173672D-02	0.352120D-03	-0.114008D-04	0.111721D-02
77	-0.184875D-02	0.700584D-04	-0.193831D-03	-0.306886D-03	-0.417519D-03
78	0.299108D-01	-0.954436D-03	0.488919D-04	-0.899854D-03	-0.236084D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	51	52	53	54	55
51	0.666330D+00				
52	0.492925D+00	0.995811D+00			
53	0.362119D+00	0.412216D+00	0.679022D+00		
54	0.270380D+00	0.292043D+00	0.222856D+00	0.533656D+00	
55	0.462255D+00	0.519830D+00	0.362879D+00	0.271430D+00	0.926188D+00
56	0.439192D+00	0.502587D+00	0.363244D+00	0.242371D+00	0.465004D+00
57	0.412491D+00	0.442864D+00	0.312201D+00	0.223650D+00	0.435189D+00
58	0.103252D+02	0.112920D+02	0.938349D+01	0.614782D+01	0.108456D+02
59	-0.248000D-02	-0.165710D-02	-0.225804D-02	-0.190004D-02	-0.343984D-02
60	0.827003D-03	-0.273281D-02	0.125261D-02	0.329392D-02	-0.856051D-03
61	0.159965D-02	-0.781146D-03	-0.267805D-02	-0.215214D-02	0.538242D-02
62	-0.625961D-02	-0.439013D-02	-0.136755D-02	0.150101D-02	-0.618438D-02
63	0.743832D-03	0.129565D-03	0.164176D-02	-0.796897D-03	0.106883D-02
64	-0.545256D-02	0.456113D-03	0.461482D-03	0.111126D-02	-0.657101D-03
65	-0.660884D-03	-0.127786D-01	-0.391782D-02	-0.207027D-02	0.604253D-02
66	-0.859109D-03	0.262521D-02	-0.120493D-01	-0.466504D-02	-0.159194D-02
67	0.837321D-04	-0.257404D-02	0.104334D-02	-0.778157D-02	0.298568D-02
68	-0.213742D-02	-0.185021D-02	-0.237918D-02	-0.145217D-02	-0.108239D-01
69	0.200624D-02	-0.138796D-02	-0.299959D-02	-0.346394D-03	-0.968579D-03
70	-0.112123D-02	0.407104D-02	0.290487D-02	0.302790D-02	-0.211602D-02
71	-0.903240D+01	0.997663D+00	0.729732D+01	-0.717301D+01	0.297000D+01
72	-0.482850D-01	-0.510752D-01	-0.370182D-01	-0.290680D-01	-0.718402D-01
73	-0.455808D-02	-0.121502D-01	-0.585277D-02	-0.458366D-02	-0.219751D-02
74	-0.914044D-02	-0.106514D-01	-0.709770D-02	-0.536598D-02	-0.986369D-02
75	0.781629D-03	0.461392D-03	0.683636D-03	0.182540D-03	-0.125903D-01
76	-0.194823D-02	-0.102930D-02	0.499935D-03	-0.171594D-02	-0.397412D-02
77	-0.261703D-04	-0.354841D-03	-0.437631D-03	-0.482885D-03	-0.183091D-03

78 -0.560911D-03 -0.713603D-04 -0.284942D-03 -0.804077D-03 -0.745375D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.670583D+00				
57	0.400041D+00	0.599574D+00			
58	0.103651D+02	0.861075D+01	0.101102D+04		
59	-0.217314D-02	-0.325457D-02	-0.327344D-01	0.272521D-02	
60	-0.290511D-02	0.412660D-04	0.736973D-01	-0.134127D-03	0.102226D-01
61	-0.239596D-03	0.305752D-02	-0.125882D+00	-0.777754D-04	0.157775D-03
62	-0.579065D-02	-0.376207D-02	-0.416487D+00	0.175641D-04	0.114476D-03
63	-0.122848D-02	0.773979D-03	0.872917D-01	0.185385D-03	0.299598D-03
64	0.369741D-02	-0.381225D-02	0.240125D-01	0.454875D-03	0.132279D-03
65	0.339960D-02	0.264864D-04	-0.131527D+00	-0.613647D-03	-0.194509D-04
66	-0.116325D-02	-0.312388D-02	-0.207452D+00	-0.241084D-03	-0.351854D-03
67	0.233190D-02	0.363783D-02	-0.466492D-01	-0.207139D-03	-0.327996D-03
68	-0.515045D-02	-0.545477D-02	0.135533D-01	0.307653D-03	-0.553076D-03
69	-0.774542D-02	-0.581093D-03	0.120160D+00	0.115034D-03	0.416257D-03
70	0.458198D-03	-0.268262D-02	0.112372D+00	0.250053D-03	-0.668072D-03
71	0.239020D+01	-0.464722D+01	-0.223420D+03	-0.466680D+00	0.166102D+01
72	-0.510514D-01	-0.428922D-01	-0.134337D+01	0.131788D-04	-0.552421D-03
73	-0.460858D-02	-0.217786D-02	-0.225516D+00	0.143487D-03	0.308205D-03
74	-0.914561D-02	-0.792812D-02	-0.211468D+00	0.602852D-04	0.205473D-04
75	0.100110D-02	0.192053D-03	-0.185790D-01	0.417723D-04	-0.292449D-05
76	0.489303D-03	-0.346943D-02	-0.631954D-01	-0.238870D-03	0.106742D-03
77	-0.266020D-03	-0.207393D-03	-0.201013D-01	-0.166558D-06	0.694331D-05
78	-0.132217D-02	-0.397431D-03	-0.997522D-01	-0.518213D-04	0.673651D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	0.607493D-02				
62	-0.873262D-03	0.339114D-01			
63	-0.292280D-03	0.706482D-04	0.112672D-01		
64	-0.756316D-03	0.905093D-03	-0.274742D-03	0.981287D-02	
65	0.104459D-02	0.778728D-03	-0.927704D-03	-0.256328D-03	0.341177D-01
66	0.798348D-03	-0.542340D-03	0.294944D-03	-0.103015D-02	0.775007D-03
67	0.126580D-03	0.752250D-04	0.863703D-04	-0.462795D-04	0.113034D-02
68	-0.587864D-03	-0.375282D-03	0.102003D-03	0.127965D-03	-0.640480D-03
69	0.436624D-03	-0.363210D-03	-0.519216D-03	-0.684120D-03	-0.622757D-03
70	-0.927570D-03	0.163189D-03	0.500816D-03	0.442418D-03	-0.112338D-02



71	-0.890514D+00	-0.249140D+00	-0.584680D+00	0.972816D+00	0.174583D+01
72	-0.428552D-03	-0.427639D-03	-0.210510D-03	0.112147D-03	-0.122678D-02
73	0.830099D-03	-0.222620D-03	-0.705235D-03	-0.581132D-04	0.882590D-04
74	-0.513600D-05	0.908944D-04	0.692401D-04	-0.545953D-04	0.882889D-04
75	-0.112239D-03	-0.560226D-04	-0.664424D-04	-0.308522D-04	-0.221011D-03
76	-0.237162D-04	0.260504D-03	0.655992D-04	-0.331170D-03	0.137444D-03
77	-0.224651D-04	0.519585D-04	0.721418D-04	-0.136515D-04	-0.107621D-05
78	-0.423334D-04	0.339607D-03	-0.103061D-03	0.847464D-04	-0.164669D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.263524D-01				
67	0.184659D-02	0.239401D-01			
68	-0.339129D-03	-0.683456D-04	0.129189D-01		
69	0.165080D-03	-0.186254D-03	-0.296625D-04	0.947372D-02	
70	-0.539429D-03	-0.673341D-03	0.101309D-02	-0.597409D-03	0.980606D-02
71	0.234246D+01	0.113719D+01	-0.181497D+01	-0.101996D+01	0.477506D+00
72	0.949118D-03	-0.151315D-02	0.128310D-02	0.782693D-04	0.952480D-03
73	0.564603D-03	0.712525D-03	-0.255245D-02	-0.251696D-03	-0.467080D-03
74	0.400770D-04	-0.764592D-04	0.706455D-04	-0.224120D-04	-0.578954D-04
75	0.465238D-04	-0.750764D-04	0.137028D-03	-0.718812D-05	-0.992121D-05
76	0.628582D-04	-0.241158D-03	-0.629343D-02	0.800496D-04	0.224855D-03
77	-0.282572D-04	0.318251D-04	-0.422135D-04	0.132265D-05	0.751037D-04
78	0.852827D-04	-0.863159D-04	-0.213875D-04	-0.819826D-06	0.312797D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.964940D+05				
72	0.143573D+00	0.461072D-01			
73	-0.456324D+00	-0.110141D-02	0.154365D-01		
74	-0.198033D+00	0.104994D-02	0.881927D-04	0.335821D-03	
75	0.132213D+00	0.683103D-03	-0.447183D-04	0.126584D-05	0.811121D-03
76	0.255206D+00	0.370398D-03	0.173014D-02	-0.234991D-04	-0.229835D-05
77	0.520103D-01	-0.218132D-03	0.561060D-04	0.922236D-05	-0.268488D-05
78	0.268692D+00	0.280075D-03	-0.338271D-03	0.172781D-04	-0.243156D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78

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76  0.988304D-02
77  0.167826D-04  0.125357D-03
78 -0.155806D-04  0.728641D-04  0.160521D-02

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	ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	1.000				
2	0.195	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.066	-0.164	0.182	-0.177	-0.227
7	0.014	0.006	0.003	-0.016	-0.030
8	0.024	-0.013	-0.010	-0.017	-0.050
9	0.019	0.033	0.011	0.038	0.006
10	0.001	0.036	0.026	0.037	0.019
11	0.023	0.010	0.000	0.005	0.042
12	-0.020	-0.012	-0.009	-0.036	0.039
13	0.015	0.021	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.008	0.010	-0.039	0.020	0.020
16	-0.040	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.000	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.016	0.027	0.009
23	-0.009	0.013	-0.019	0.009	-0.028
24	0.012	-0.014	0.022	-0.033	0.007
25	-0.043	0.050	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.015	0.002	0.002	0.001
29	-0.042	-0.023	0.028	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.040	-0.028	0.019	-0.014	0.035
35	-0.031	-0.005	0.024	0.003	0.023
36	0.005	0.004	0.020	0.023	0.048

37	0.011	-0.034	0.019	-0.012	0.027
38	-0.006	-0.008	0.024	0.015	-0.001
39	-0.016	-0.007	-0.023	0.011	0.027
40	0.031	-0.001	0.013	0.020	0.018
41	-0.022	0.027	-0.002	0.017	0.023
42	0.045	-0.035	0.056	-0.005	0.012
43	0.019	0.002	0.030	0.032	0.039
44	-0.020	-0.002	0.004	0.017	0.050
45	0.004	-0.004	0.001	0.004	0.047
46	-0.002	0.012	0.005	0.036	0.032
47	0.012	0.018	-0.016	-0.001	0.026
48	0.025	0.035	-0.013	0.027	0.006
49	0.001	0.028	0.006	-0.001	0.036
50	0.013	0.039	-0.034	0.019	0.000
51	0.008	0.035	-0.046	0.044	0.019
52	0.026	0.015	-0.006	-0.011	-0.002
53	0.000	0.020	-0.032	-0.002	-0.013
54	0.041	0.061	-0.044	0.012	0.020
55	0.005	0.000	-0.021	-0.014	0.016
56	0.065	0.058	-0.022	0.028	0.018
57	0.020	0.051	-0.041	-0.004	0.018
58	-0.004	0.029	-0.039	0.044	0.022
59	-0.018	0.019	0.048	0.005	-0.056
60	0.035	0.044	-0.049	0.019	0.044
61	0.017	-0.003	-0.023	-0.039	-0.022
62	0.006	0.056	-0.001	0.007	-0.004
63	-0.006	-0.038	0.036	-0.001	0.004
64	0.081	0.036	0.015	-0.013	0.002
65	0.002	-0.007	0.010	0.011	0.019
66	0.063	-0.015	0.003	0.004	-0.043
67	-0.009	-0.024	-0.027	-0.007	-0.033
68	0.028	0.012	0.035	0.000	-0.058
69	-0.014	-0.006	-0.024	-0.007	0.025
70	-0.036	-0.026	0.051	-0.021	-0.014
71	-0.001	0.032	-0.020	0.047	0.028
72	0.028	0.017	-0.004	0.002	-0.016
73	0.003	0.025	-0.010	0.026	-0.004
74	0.000	-0.028	0.018	0.012	-0.014
75	0.019	0.029	0.017	0.023	0.002
76	0.007	0.018	-0.031	0.017	0.042
77	-0.028	-0.046	0.033	0.007	0.028
78	0.021	-0.003	-0.018	-0.016	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	0.029	1.000			
8	-0.043	-0.117	1.000		
9	-0.047	0.016	0.117	1.000	
10	0.009	-0.039	-0.144	0.013	1.000
11	-0.036	-0.005	-0.140	0.023	-0.172
12	0.034	0.023	0.150	-0.151	0.059
13	0.000	0.030	0.010	-0.022	-0.003
14	0.000	0.010	-0.031	-0.046	0.058
15	-0.028	-0.034	-0.015	-0.025	0.033
16	-0.017	-0.024	0.024	0.010	0.005
17	-0.011	0.013	-0.014	-0.005	0.011
18	-0.013	-0.011	-0.021	-0.042	-0.019
19	0.019	-0.036	0.019	0.007	0.026
20	0.012	0.003	-0.010	0.000	0.037
21	-0.015	0.021	-0.006	0.021	-0.034
22	-0.046	0.021	0.003	-0.009	0.004
23	-0.014	0.006	0.065	0.013	0.033
24	0.022	-0.005	-0.007	-0.032	0.025
25	0.009	-0.028	-0.013	0.006	0.023
26	-0.036	0.008	-0.019	0.002	-0.009
27	0.004	-0.016	-0.011	0.014	0.033
28	0.013	0.050	-0.038	-0.011	-0.018
29	0.036	0.034	-0.052	0.005	0.024
30	-0.006	-0.025	-0.014	-0.011	-0.025
31	0.038	0.002	0.001	0.005	0.012
32	0.011	0.040	0.002	0.037	0.000
33	-0.006	0.010	-0.017	0.012	-0.010
34	0.017	-0.020	0.012	-0.042	-0.024
35	0.024	-0.031	0.040	0.008	-0.008
36	0.012	-0.024	0.041	0.054	0.003
37	0.039	-0.061	0.038	0.020	-0.005
38	0.012	0.025	0.015	0.036	0.002
39	0.039	-0.010	0.024	0.041	-0.014
40	0.007	-0.034	0.051	0.009	-0.003
41	-0.004	-0.053	0.028	0.036	-0.009
42	-0.037	-0.021	0.010	0.012	0.005
43	-0.003	-0.031	0.042	0.028	-0.010
44	0.011	-0.024	0.036	0.035	-0.013
45	0.005	-0.061	0.049	0.039	-0.020
46	-0.008	-0.018	0.020	0.016	0.031

47	0.006	-0.033	0.041	0.000	-0.005
48	0.009	-0.033	0.035	-0.010	0.040
49	-0.007	0.033	0.037	-0.021	-0.004
50	-0.014	-0.022	0.018	-0.007	0.049
51	0.012	-0.042	0.026	0.002	0.005
52	0.005	0.007	0.028	-0.016	0.007
53	0.001	-0.017	0.019	-0.036	0.007
54	0.001	0.025	-0.009	-0.036	0.049
55	0.003	-0.028	0.016	0.024	-0.007
56	-0.002	-0.021	0.040	0.004	-0.013
57	0.022	-0.041	0.022	-0.002	0.040
58	0.007	-0.052	0.038	0.001	0.005
59	0.041	0.009	0.021	0.025	0.021
60	-0.025	0.017	0.007	-0.038	0.000
61	0.052	0.014	-0.003	0.027	-0.002
62	-0.014	0.025	-0.012	0.015	0.006
63	0.011	0.015	0.021	-0.003	-0.010
64	0.026	0.029	0.023	0.005	-0.014
65	-0.002	-0.012	-0.015	0.024	0.006
66	0.021	0.000	0.034	-0.028	-0.035
67	0.006	-0.024	0.012	-0.011	-0.027
68	-0.006	-0.057	-0.022	-0.022	0.003
69	-0.009	-0.016	0.002	0.047	-0.015
70	-0.017	0.053	-0.003	0.029	-0.006
71	-0.030	0.011	0.010	-0.027	-0.016
72	0.024	0.008	-0.047	-0.065	-0.016
73	0.032	0.004	-0.006	0.018	0.038
74	-0.024	0.018	-0.035	0.007	-0.015
75	0.002	-0.012	0.017	-0.056	0.022
76	0.001	0.057	0.004	0.023	0.000
77	-0.002	-0.008	-0.037	0.019	0.026
78	0.015	0.366	0.026	-0.005	0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.180	1.000			
13	-0.030	0.005	1.000		
14	-0.005	0.018	0.242	1.000	
15	0.006	-0.004	0.016	0.273	1.000
16	0.001	0.033	-0.129	-0.192	-0.067
17	-0.015	0.015	-0.013	-0.110	-0.261

18	0.012	0.003	0.006	0.014	0.065
19	-0.016	-0.004	0.064	0.243	0.060
20	-0.017	-0.028	-0.006	0.076	0.310
21	-0.007	-0.010	-0.021	-0.032	-0.022
22	0.033	0.032	0.019	-0.004	0.042
23	-0.055	-0.009	0.141	0.191	0.101
24	-0.012	0.014	0.023	0.133	0.231
25	0.017	-0.036	-0.029	-0.021	-0.042
26	-0.013	-0.031	0.027	0.067	0.037
27	-0.044	0.014	0.000	0.063	0.063
28	0.014	0.025	-0.086	-0.228	-0.065
29	-0.007	-0.033	-0.046	-0.121	-0.290
30	-0.002	-0.008	0.034	0.042	0.034
31	0.023	0.011	-0.033	-0.010	-0.065
32	0.060	0.005	-0.037	-0.047	-0.064
33	-0.034	0.007	0.072	0.035	-0.013
34	-0.005	-0.004	-0.004	-0.011	-0.014
35	0.013	0.051	-0.001	0.004	-0.035
36	0.002	0.031	0.009	-0.029	-0.008
37	0.014	0.029	-0.018	-0.009	0.003
38	0.009	0.017	-0.002	-0.008	-0.034
39	0.051	0.048	-0.018	-0.016	-0.009
40	0.012	0.028	0.001	-0.023	-0.040
41	0.040	0.046	0.032	-0.003	0.015
42	0.059	0.037	-0.020	-0.017	-0.018
43	0.020	0.021	-0.013	-0.008	0.005
44	0.009	0.007	-0.006	-0.024	-0.022
45	0.019	0.045	-0.034	0.000	-0.012
46	-0.043	0.025	0.003	-0.023	0.019
47	0.002	0.029	-0.001	-0.042	0.019
48	-0.008	0.062	-0.005	-0.045	0.001
49	-0.010	0.047	-0.013	-0.023	0.019
50	0.000	0.006	-0.009	-0.014	0.005
51	-0.002	0.029	-0.029	-0.050	-0.002
52	-0.015	0.028	-0.021	-0.021	-0.004
53	0.014	0.031	-0.023	-0.051	-0.016
54	0.004	0.031	-0.021	0.006	0.022
55	0.007	0.025	-0.005	-0.029	-0.015
56	0.017	0.028	0.011	-0.026	0.000
57	-0.023	0.029	0.028	-0.012	0.007
58	-0.013	0.008	0.015	-0.009	-0.021
59	0.005	0.043	-0.014	-0.004	0.006
60	-0.001	0.052	-0.012	-0.046	-0.031
61	-0.011	-0.031	-0.012	-0.022	-0.065

62	-0.057	-0.036	-0.015	-0.008	-0.032
63	0.001	0.040	0.031	-0.001	0.042
64	0.032	0.001	0.005	0.011	-0.027
65	0.004	0.004	0.024	-0.037	-0.046
66	0.026	0.040	-0.010	0.011	0.040
67	-0.003	0.031	-0.022	-0.008	0.006
68	-0.017	0.019	-0.036	-0.004	-0.025
69	-0.005	-0.006	-0.026	0.005	0.013
70	0.078	0.019	0.008	0.014	0.052
71	0.011	-0.014	0.038	-0.026	-0.055
72	-0.041	-0.044	-0.001	0.026	-0.010
73	0.010	0.002	0.037	0.037	-0.021
74	-0.003	-0.052	-0.011	0.027	0.031
75	-0.020	0.027	0.006	-0.016	0.023
76	0.025	-0.026	0.027	-0.024	0.003
77	0.027	-0.021	0.010	-0.001	0.086
78	-0.025	-0.001	0.001	0.022	-0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.014	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.044	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.008	-0.179	-0.048
29	0.061	0.232	-0.063	-0.053	-0.215
30	-0.092	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.025	0.023
34	0.050	-0.018	-0.038	0.001	0.001
35	0.021	0.011	0.020	0.015	-0.022
36	0.035	-0.004	0.038	0.008	0.018
37	0.023	0.012	-0.023	0.017	-0.030

38	0.036	0.031	-0.009	0.027	0.005
39	0.041	0.026	-0.001	0.034	-0.017
40	0.021	0.025	-0.007	0.022	-0.019
41	0.022	-0.021	-0.016	0.000	0.009
42	-0.044	0.023	-0.003	0.050	0.000
43	0.034	0.006	-0.006	0.030	-0.019
44	0.050	0.017	-0.011	0.022	-0.006
45	0.020	-0.027	-0.003	0.041	-0.005
46	0.016	-0.022	-0.040	-0.052	0.020
47	0.015	0.026	-0.021	-0.022	-0.035
48	-0.007	0.006	-0.016	-0.013	-0.032
49	0.015	0.017	-0.021	-0.011	-0.027
50	-0.023	0.008	-0.016	0.028	-0.022
51	0.001	0.008	-0.012	-0.004	-0.015
52	0.001	0.017	-0.015	-0.012	-0.026
53	-0.019	0.017	-0.009	-0.011	-0.028
54	-0.019	-0.033	-0.021	-0.029	0.003
55	0.000	0.025	-0.024	0.005	-0.008
56	-0.007	0.023	0.019	-0.029	-0.049
57	-0.016	0.010	-0.005	0.007	-0.038
58	-0.013	0.038	-0.052	-0.029	-0.031
59	0.000	-0.049	-0.010	-0.030	-0.008
60	0.023	-0.013	0.016	-0.006	-0.018
61	-0.006	0.000	0.014	0.003	-0.015
62	0.001	-0.002	0.004	0.008	-0.001
63	0.044	0.029	-0.028	0.006	0.016
64	0.048	-0.006	0.021	0.027	-0.006
65	0.003	0.036	-0.023	-0.038	-0.061
66	-0.010	-0.006	-0.026	0.039	-0.022
67	-0.018	-0.004	-0.003	-0.011	-0.047
68	0.045	0.024	-0.050	-0.009	-0.045
69	0.019	0.073	-0.011	0.001	-0.031
70	0.032	-0.029	-0.003	-0.002	0.019
71	-0.052	-0.011	0.004	0.045	-0.016
72	0.017	0.000	0.029	-0.005	0.007
73	-0.004	-0.028	0.029	0.033	0.048
74	0.009	-0.032	0.042	0.018	0.043
75	-0.011	-0.002	0.000	-0.002	0.034
76	-0.009	0.012	0.030	0.007	0.027
77	0.006	-0.013	0.026	0.048	0.121
78	-0.033	-0.003	0.024	0.014	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES



	21	22	23	24	25
21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.054	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.048	0.027	0.017	0.013	0.018
35	0.075	-0.006	0.027	-0.004	-0.010
36	0.070	0.019	0.024	-0.021	0.016
37	0.069	0.000	0.037	-0.021	0.027
38	0.078	-0.001	0.024	-0.035	0.007
39	0.095	0.011	0.037	-0.037	0.018
40	0.076	-0.008	0.068	-0.005	0.000
41	0.076	0.033	0.033	0.007	0.002
42	0.047	0.023	0.024	-0.027	0.003
43	0.116	-0.026	0.022	-0.032	0.016
44	0.081	0.003	0.031	-0.021	0.012
45	0.068	-0.007	0.055	-0.009	0.035
46	0.074	-0.010	0.022	-0.021	0.015
47	-0.028	0.004	0.017	-0.024	0.023
48	-0.008	-0.007	-0.016	-0.050	0.003
49	-0.018	0.027	-0.013	0.009	-0.011
50	-0.030	0.000	-0.002	-0.038	0.037
51	-0.007	0.009	0.005	-0.073	0.019
52	-0.012	-0.021	-0.019	-0.055	0.031
53	0.013	-0.010	-0.017	-0.042	0.002
54	-0.022	0.011	-0.024	-0.018	0.022
55	-0.011	0.009	-0.012	-0.024	-0.020
56	0.003	-0.020	0.010	-0.023	0.008
57	-0.020	-0.031	0.011	-0.053	0.032
58	0.035	-0.013	0.005	-0.017	-0.004
59	0.031	-0.002	-0.001	0.046	0.006
60	0.021	-0.002	0.001	0.015	0.014
61	-0.035	-0.029	-0.009	0.022	-0.001
62	-0.030	0.015	0.000	-0.010	0.008

63	0.000	0.021	-0.004	-0.016	-0.002
64	-0.006	0.004	-0.056	0.043	-0.015
65	0.009	-0.021	0.011	-0.031	-0.043
66	-0.017	-0.038	0.051	-0.043	-0.025
67	-0.031	-0.018	-0.043	0.000	-0.022
68	0.048	-0.022	-0.005	0.017	0.011
69	0.036	-0.013	0.002	-0.042	0.041
70	-0.017	0.024	0.012	0.018	0.002
71	-0.036	-0.031	0.018	-0.010	-0.039
72	0.040	-0.011	0.032	0.004	0.010
73	-0.076	0.066	-0.030	0.015	0.036
74	0.026	0.013	0.033	0.056	-0.044
75	0.006	-0.003	0.030	0.038	0.030
76	-0.012	0.033	0.029	-0.035	0.024
77	-0.068	0.079	0.017	0.060	0.005
78	0.057	0.007	0.028	-0.010	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.043	-0.072	-0.288	0.256
34	-0.016	0.034	0.017	-0.010	0.000
35	-0.056	-0.037	0.015	-0.020	0.049
36	-0.039	0.004	0.019	-0.006	0.033
37	-0.035	0.005	-0.008	-0.012	0.002
38	-0.037	0.003	-0.001	0.010	0.004
39	-0.052	-0.016	-0.011	0.001	0.035
40	-0.033	-0.006	-0.043	-0.014	0.032
41	-0.026	0.004	-0.023	-0.003	0.013
42	-0.005	0.013	-0.032	-0.003	0.022
43	-0.058	-0.011	-0.024	-0.023	0.049
44	-0.050	-0.026	0.004	-0.017	0.011
45	-0.041	0.014	-0.027	0.012	0.035
46	-0.054	-0.013	-0.007	-0.009	0.014
47	-0.018	0.003	-0.022	0.010	-0.005
48	-0.021	-0.024	-0.007	0.044	-0.023

49	0.006	0.002	0.004	0.013	-0.030
50	0.000	-0.017	-0.025	0.041	-0.020
51	-0.004	-0.024	-0.002	0.023	-0.017
52	-0.008	-0.008	0.014	0.056	-0.040
53	-0.028	-0.017	-0.009	0.031	0.021
54	0.029	0.018	-0.029	-0.018	-0.010
55	-0.024	0.004	0.008	0.060	-0.034
56	0.003	-0.003	-0.016	0.020	-0.049
57	-0.015	-0.029	-0.042	0.018	-0.014
58	0.005	0.017	-0.003	0.019	-0.052
59	0.014	-0.037	0.019	-0.007	-0.046
60	-0.013	0.029	0.012	0.002	0.006
61	0.013	0.046	0.044	-0.053	-0.038
62	-0.021	-0.025	-0.023	0.027	0.020
63	0.013	0.020	-0.019	-0.054	-0.015
64	-0.007	-0.011	0.001	0.007	0.039
65	-0.005	0.022	0.022	-0.002	0.046
66	-0.011	0.058	-0.015	-0.014	0.004
67	-0.028	0.008	0.020	0.028	-0.019
68	0.008	-0.031	0.039	-0.042	-0.042
69	0.000	0.013	0.012	-0.039	-0.026
70	-0.011	-0.015	0.000	-0.019	-0.016
71	-0.051	-0.007	-0.060	-0.024	0.009
72	-0.021	-0.012	-0.004	-0.035	0.033
73	0.026	0.023	-0.002	0.006	0.000
74	0.022	0.034	0.026	-0.034	0.054
75	0.032	0.000	-0.029	-0.066	0.001
76	-0.006	0.031	-0.034	0.031	0.006
77	0.021	-0.003	0.003	-0.034	0.011
78	-0.029	-0.002	0.011	0.026	-0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.005	-0.008	-0.020	1.000	
35	0.022	-0.011	0.008	0.271	1.000
36	0.007	-0.006	0.011	0.325	0.670
37	0.034	0.004	0.007	0.241	0.418
38	-0.002	-0.012	0.003	0.307	0.612
39	0.017	0.009	0.029	0.325	0.634

40	0.008	-0.012	0.008	0.273	0.579
41	0.006	0.008	0.005	0.233	0.478
42	-0.027	0.019	-0.002	0.164	0.383
43	0.030	-0.004	0.018	0.307	0.632
44	0.008	0.011	0.017	0.310	0.636
45	0.026	-0.002	0.014	0.291	0.581
46	0.034	-0.020	-0.004	0.104	0.301
47	0.008	-0.010	0.009	0.036	0.014
48	0.031	-0.015	-0.019	0.018	0.032
49	-0.001	-0.005	-0.040	-0.014	-0.004
50	0.031	-0.012	-0.028	0.018	0.011
51	0.033	-0.002	-0.007	0.019	0.020
52	0.028	-0.012	-0.029	0.039	0.017
53	0.047	-0.032	-0.017	0.026	0.057
54	0.007	-0.038	-0.002	0.020	-0.046
55	0.034	-0.013	-0.052	0.058	0.032
56	0.027	-0.019	0.011	0.044	0.013
57	0.060	0.023	-0.030	0.022	0.000
58	0.034	0.016	-0.063	0.010	0.003
59	0.034	-0.040	-0.033	-0.036	-0.023
60	0.039	0.028	0.003	-0.001	-0.033
61	0.022	0.001	0.036	-0.045	-0.035
62	-0.018	0.023	0.027	0.001	-0.016
63	-0.050	0.037	0.008	-0.011	0.010
64	-0.004	-0.002	0.024	-0.009	0.032
65	-0.018	0.018	0.011	0.042	0.010
66	-0.027	-0.006	-0.025	-0.002	-0.013
67	0.010	-0.012	0.006	-0.045	0.000
68	0.008	-0.023	0.013	0.039	0.011
69	-0.019	0.000	0.015	-0.017	-0.009
70	-0.022	0.016	-0.032	-0.005	0.014
71	-0.022	0.038	-0.035	0.006	0.055
72	-0.036	-0.006	0.019	-0.021	-0.019
73	-0.023	0.030	-0.018	-0.028	-0.040
74	-0.043	-0.001	0.024	-0.067	-0.025
75	-0.020	-0.006	0.020	-0.002	-0.031
76	-0.053	-0.007	0.005	0.005	0.000
77	-0.017	0.012	0.003	-0.029	0.010
78	0.030	0.008	-0.028	0.123	0.317

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36

37

38

39

40

36	1.000				
37	0.485	1.000			
38	0.701	0.459	1.000		
39	0.711	0.457	0.656	1.000	
40	0.657	0.430	0.615	0.618	1.000
41	0.567	0.357	0.509	0.519	0.495
42	0.439	0.296	0.418	0.387	0.376
43	0.743	0.480	0.679	0.685	0.644
44	0.721	0.474	0.677	0.672	0.600
45	0.695	0.454	0.625	0.644	0.580
46	0.372	0.268	0.326	0.333	0.299
47	0.020	0.037	-0.014	0.031	0.008
48	0.021	0.011	-0.004	0.005	0.022
49	-0.021	-0.048	-0.018	-0.035	0.005
50	-0.005	0.021	0.000	-0.019	-0.014
51	-0.004	0.009	-0.014	-0.004	0.002
52	-0.005	0.025	-0.024	-0.020	-0.010
53	0.023	0.026	0.008	0.031	0.016
54	-0.023	0.020	-0.022	-0.011	-0.015
55	0.038	0.037	-0.015	0.008	0.007
56	0.013	0.035	-0.015	-0.015	0.003
57	-0.004	0.009	-0.028	-0.028	-0.006
58	-0.013	0.019	-0.015	-0.028	-0.047
59	-0.019	0.007	-0.009	0.014	0.009
60	-0.011	-0.008	-0.011	-0.017	0.011
61	-0.011	-0.026	-0.051	-0.034	-0.027
62	-0.031	0.011	-0.016	-0.024	0.016
63	-0.017	0.016	0.022	-0.016	-0.034
64	0.027	0.019	0.027	0.053	0.044
65	0.041	0.022	0.021	0.046	0.017
66	-0.006	0.001	0.024	0.007	0.028
67	0.018	0.015	0.018	0.028	-0.009
68	0.027	-0.006	0.032	0.029	0.042
69	-0.019	-0.009	0.010	0.015	0.024
70	-0.006	0.001	-0.026	-0.003	-0.031
71	0.019	0.030	0.025	0.043	0.011
72	-0.002	0.016	0.009	0.011	0.008
73	-0.037	-0.015	-0.060	-0.040	-0.052
74	-0.020	-0.058	0.011	-0.023	-0.015
75	-0.020	0.004	0.018	0.001	-0.011
76	-0.017	-0.064	-0.014	-0.028	-0.035
77	0.005	-0.005	-0.026	0.006	0.026
78	0.331	0.189	0.326	0.332	0.286

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.293	1.000			
43	0.533	0.411	1.000		
44	0.529	0.390	0.688	1.000	
45	0.493	0.404	0.653	0.646	1.000
46	0.286	0.206	0.351	0.328	0.295
47	-0.005	-0.013	0.019	-0.004	0.026
48	-0.011	-0.006	0.035	0.007	0.015
49	-0.016	-0.012	-0.014	-0.024	-0.013
50	-0.032	0.016	0.009	-0.013	-0.021
51	-0.026	0.015	0.021	-0.005	0.005
52	-0.017	0.012	0.014	-0.027	0.005
53	-0.028	0.010	0.016	0.012	0.003
54	-0.005	-0.003	-0.011	-0.020	-0.023
55	-0.002	0.026	0.016	0.001	0.031
56	-0.003	0.004	0.021	-0.001	0.005
57	-0.008	-0.020	0.011	-0.003	-0.016
58	-0.037	-0.018	-0.018	-0.023	-0.016
59	-0.009	0.007	-0.010	-0.042	-0.001
60	-0.006	0.001	-0.026	-0.015	-0.012
61	0.024	-0.023	-0.022	-0.033	-0.002
62	-0.029	0.011	-0.023	-0.011	-0.014
63	-0.024	-0.030	0.004	0.003	0.009
64	0.039	0.014	0.024	0.029	0.040
65	0.022	0.016	0.022	0.043	0.012
66	0.015	0.035	0.027	0.005	0.015
67	0.016	-0.042	0.000	-0.004	0.012
68	0.013	0.024	0.045	0.030	0.039
69	-0.004	0.046	0.000	-0.010	-0.008
70	-0.016	-0.010	0.012	-0.029	-0.017
71	0.015	0.012	0.029	0.041	0.024
72	-0.041	0.012	-0.016	0.002	-0.006
73	0.000	-0.025	-0.043	-0.012	-0.045
74	0.000	-0.033	-0.009	-0.005	0.003
75	0.020	-0.018	0.016	0.009	-0.005
76	-0.040	0.002	-0.027	-0.025	-0.037
77	0.034	-0.048	0.024	-0.006	0.013
78	0.249	0.174	0.339	0.320	0.288

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	46	47	48	49	50
46	1.000				
47	-0.047	1.000			
48	-0.020	0.700	1.000		
49	-0.045	0.470	0.487	1.000	
50	-0.035	0.616	0.706	0.451	1.000
51	-0.019	0.629	0.710	0.466	0.648
52	-0.024	0.624	0.683	0.425	0.615
53	0.002	0.510	0.587	0.366	0.526
54	-0.019	0.381	0.457	0.242	0.405
55	0.007	0.559	0.619	0.430	0.571
56	-0.045	0.661	0.725	0.453	0.644
57	-0.029	0.576	0.680	0.444	0.608
58	-0.072	0.383	0.413	0.286	0.378
59	0.000	-0.030	-0.046	-0.039	-0.078
60	0.021	-0.076	-0.005	0.003	-0.026
61	-0.042	-0.008	-0.095	0.012	-0.043
62	0.002	-0.027	-0.020	-0.079	-0.014
63	-0.002	0.005	0.013	0.008	-0.058
64	-0.014	0.023	0.039	-0.045	-0.013
65	-0.002	-0.030	-0.016	-0.020	-0.006
66	0.004	0.013	-0.013	-0.023	-0.017
67	0.009	0.059	-0.003	-0.002	0.054
68	-0.004	-0.012	-0.020	-0.031	-0.034
69	-0.013	-0.037	-0.041	-0.033	-0.027
70	-0.015	0.018	0.065	0.021	0.022
71	-0.029	0.003	0.003	-0.016	0.014
72	0.068	-0.280	-0.309	-0.196	-0.279
73	0.007	-0.064	-0.089	-0.015	-0.040
74	0.053	-0.605	-0.664	-0.439	-0.609
75	-0.019	0.032	0.036	0.017	0.017
76	-0.011	-0.022	0.004	0.000	0.014
77	-0.030	0.008	-0.021	-0.032	-0.046
78	0.134	-0.031	0.001	-0.027	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	51	52	53	55
51	1.000			
52	0.605	1.000		
53	0.538	0.501	1.000	

54	0.453	0.401	0.370	1.000	
55	0.588	0.541	0.458	0.386	1.000
56	0.657	0.615	0.538	0.405	0.590
57	0.653	0.573	0.489	0.395	0.584
58	0.398	0.356	0.358	0.265	0.354
59	-0.058	-0.032	-0.052	-0.050	-0.068
60	0.010	-0.027	0.015	0.045	-0.009
61	0.025	-0.010	-0.042	-0.038	0.072
62	-0.042	-0.024	-0.009	0.011	-0.035
63	0.009	0.001	0.019	-0.010	0.010
64	-0.067	0.005	0.006	0.015	-0.007
65	-0.004	-0.069	-0.026	-0.015	0.034
66	-0.006	0.016	-0.090	-0.039	-0.010
67	0.001	-0.017	0.008	-0.069	0.020
68	-0.023	-0.016	-0.025	-0.017	-0.099
69	0.025	-0.014	-0.037	-0.005	-0.010
70	-0.014	0.041	0.036	0.042	-0.022
71	-0.036	0.003	0.029	-0.032	0.010
72	-0.275	-0.238	-0.209	-0.185	-0.348
73	-0.045	-0.098	-0.057	-0.051	-0.018
74	-0.611	-0.582	-0.470	-0.401	-0.559
75	0.034	0.016	0.029	0.009	-0.459
76	-0.024	-0.010	0.006	-0.024	-0.042
77	-0.003	-0.032	-0.047	-0.059	-0.017
78	-0.017	-0.002	-0.009	-0.027	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.631	1.000			
58	0.398	0.350	1.000		
59	-0.051	-0.081	-0.020	1.000	
60	-0.035	0.001	0.023	-0.025	1.000
61	-0.004	0.051	-0.051	-0.019	0.020
62	-0.038	-0.026	-0.071	0.002	0.006
63	-0.014	0.009	0.026	0.033	0.028
64	0.046	-0.050	0.008	0.088	0.013
65	0.022	0.000	-0.022	-0.064	-0.001
66	-0.009	-0.025	-0.040	-0.028	-0.021
67	0.018	0.030	-0.009	-0.026	-0.021
68	-0.055	-0.062	0.004	0.052	-0.048
69	-0.097	-0.008	0.039	0.023	0.042



70	0.006	-0.035	0.036	0.048	-0.067
71	0.009	-0.019	-0.023	-0.029	0.053
72	-0.290	-0.258	-0.197	0.001	-0.025
73	-0.045	-0.023	-0.057	0.022	0.025
74	-0.609	-0.559	-0.363	0.063	0.011
75	0.043	0.009	-0.021	0.028	-0.001
76	0.006	-0.045	-0.020	-0.046	0.011
77	-0.029	-0.024	-0.056	0.000	0.006
78	-0.040	-0.013	-0.078	-0.025	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.061	1.000			
63	-0.035	0.004	1.000		
64	-0.098	0.050	-0.026	1.000	
65	0.073	0.023	-0.047	-0.014	1.000
66	0.063	-0.018	0.017	-0.064	0.026
67	0.010	0.003	0.005	-0.003	0.040
68	-0.066	-0.018	0.008	0.011	-0.031
69	0.058	-0.020	-0.050	-0.071	-0.035
70	-0.120	0.009	0.048	0.045	-0.061
71	-0.037	-0.004	-0.018	0.032	0.030
72	-0.026	-0.011	-0.009	0.005	-0.031
73	0.086	-0.010	-0.053	-0.005	0.004
74	-0.004	0.027	0.036	-0.030	0.026
75	-0.051	-0.011	-0.022	-0.011	-0.042
76	-0.003	0.014	0.006	-0.034	0.007
77	-0.026	0.025	0.061	-0.012	-0.001
78	-0.014	0.046	-0.024	0.021	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.074	1.000			
68	-0.018	-0.004	1.000		
69	0.010	-0.012	-0.003	1.000	
70	-0.034	-0.044	0.090	-0.062	1.000
71	0.046	0.024	-0.051	-0.034	0.016
72	0.027	-0.046	0.053	0.004	0.045

73	0.028	0.037	-0.181	-0.021	-0.038
74	0.013	-0.027	0.034	-0.013	-0.032
75	0.010	-0.017	0.042	-0.003	-0.004
76	0.004	-0.016	-0.557	0.008	0.023
77	-0.016	0.018	-0.033	0.001	0.068
78	0.013	-0.014	-0.005	0.000	0.008

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	0.002	1.000			
73	-0.012	-0.041	1.000		
74	-0.035	0.267	0.039	1.000	
75	0.015	0.112	-0.013	0.002	1.000
76	0.008	0.017	0.140	-0.013	-0.001
77	0.015	-0.091	0.040	0.045	-0.008
78	0.022	0.033	-0.068	0.024	-0.021

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	0.015	1.000	
78	-0.004	0.162	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.040	73
200	1.019	77
300	1.009	38

400	1.010	36
500	1.009	36
600	1.008	68
700	1.003	12
800	1.002	61
900	1.003	73
1000	1.004	61

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144

108	142
131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915

DUTIES15	0.915	0.915	0.915	0.915	0.915
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	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		

PRESS15	0.915	0.915	0.914	0.915	
DUTIES15	0.915	0.915	0.915	0.915	0.915

# UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16		
Category 1	0.881	4884.000
Category 2	0.119	662.000

# UNIVARIATE SAMPLE STATISTICS

## UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	

FEL		43.091	0.291	0.000	22.41%	0.000	15.000	35.000
	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-15.594 72.564

Posterior Predictive P-Value 0.111

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level



PHYCAT16	ON					
PHY15		0.972	0.071	0.000	0.839	1.108 *
CHOICE15		-0.069	0.025	0.003	-0.120	-0.021 *
BULLY15		0.032	0.048	0.259	-0.062	0.121
DUTIES15		-0.031	0.028	0.139	-0.086	0.023
PRESS15		-0.032	0.026	0.111	-0.081	0.021
KES15		0.226	0.045	0.000	0.131	0.315 *
KES15	WITH					
PHY15		0.052	0.004	0.000	0.044	0.059 *
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073 *
BULLY15		0.058	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.085	0.116 *
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092 *
PHY15	WITH					
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022 *
BULLY15		0.012	0.003	0.001	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.026	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.072	-0.044 *
PRESS15		-0.087	0.015	0.000	-0.117	-0.060 *
DUTIES15		0.173	0.014	0.000	0.145	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.119 *
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066 *
PRESS15	WITH					
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158 *
Means						
PHY15		0.002	0.006	0.373	-0.011	0.015
KES15		0.001	0.007	0.432	-0.014	0.015
CHOICE15		-0.002	0.015	0.457	-0.031	0.027
BULLY15		0.000	0.007	0.471	-0.013	0.014
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.013	0.473	-0.028	0.026
Variances						
PHY15		0.233	0.005	0.000	0.224	0.242 *

KES15	0.290	0.006	0.000	0.278	0.301	*
CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.558	0.780	0.000	2.283	5.392
EAT		4.183	0.830	0.000	2.847	6.075
ALC		2.831	0.844	0.000	1.445	4.700
PHY		3.793	0.821	0.000	2.475	5.674
PSY		3.894	0.820	0.000	2.613	5.750
SMO		4.384	1.002	0.000	2.733	6.684
TER		3.104	0.828	0.000	1.754	5.009
BEN		2.191	0.739	0.000	0.877	3.823
HPR		4.222	0.852	0.000	2.891	6.211
SPR		3.981	0.825	0.000	2.613	5.853
CUL		3.589	0.922	0.000	1.866	5.624
FEL		79.527	31.928	0.002	24.006	153.121

SING	BY					
CUL		1.000	0.000	0.000	1.000	1.000
PHYCAT16	ON					
PROG		-0.493	0.217	0.005	-0.959	-0.100
SING		-0.023	0.133	0.407	-0.320	0.247

PROG	WITH					
SING		0.001	0.029	0.486	-0.061	0.057

Intercepts						
ACC		0.466	0.073	0.000	0.319	0.608
ACT		0.115	0.142	0.211	-0.160	0.399
EAT		0.311	0.153	0.024	0.002	0.642
ALC		0.049	0.156	0.375	-0.240	0.357
PHY		0.209	0.152	0.079	-0.091	0.515
PSY		0.095	0.153	0.259	-0.211	0.412
SMO		0.321	0.189	0.043	-0.060	0.713
TER		0.187	0.156	0.105	-0.119	0.499
BEN		0.042	0.137	0.381	-0.219	0.319
HPR		0.227	0.161	0.087	-0.092	0.541

SPR	0.212	0.152	0.083	-0.079	0.517	
CUL	0.024	0.146	0.430	-0.269	0.323	
FEL	42.597	5.587	0.000	31.629	53.680	*
Thresholds						
PHYCAT16\$1	1.333	0.041	0.000	1.258	1.417	*
Variances						
PROG	0.056	0.018	0.000	0.032	0.103	*
SING	0.211	0.114	0.000	0.080	0.511	*
Residual Variances						
PHYCAT16	0.012	0.011	0.000	0.001	0.042	*
ACC	0.251	0.052	0.000	0.174	0.376	*
ACT	0.446	0.101	0.000	0.303	0.694	*
EAT	0.296	0.078	0.000	0.181	0.493	*
ALC	0.879	0.184	0.000	0.612	1.317	*
PHY	0.469	0.106	0.000	0.312	0.726	*
PSY	0.424	0.099	0.000	0.275	0.651	*
SMO	0.810	0.185	0.000	0.532	1.248	*
TER	0.771	0.162	0.000	0.530	1.159	*
BEN	0.769	0.155	0.000	0.529	1.140	*
HPR	0.380	0.096	0.000	0.240	0.617	*
SPR	0.418	0.097	0.000	0.273	0.649	*
CUL	0.260	0.132	0.000	0.035	0.537	*
FEL	1463.142	310.579	0.000	1028.013	2242.534	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Posterior	One-Tailed	95% C.I.		Significance	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%		
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.367	0.463	*
CHOICE15		-0.063	0.023	0.003	-0.111	-0.019	*
BULLY15		0.014	0.021	0.259	-0.027	0.053	
DUTIES15		-0.025	0.023	0.139	-0.070	0.019	
PRESS15		-0.028	0.023	0.111	-0.071	0.019	
KES15		0.108	0.021	0.000	0.063	0.150	*

KES15	WITH						
PHY15		0.198	0.014	0.000	0.171	0.225	*
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131	*
BULLY15		0.219	0.013	0.000	0.193	0.245	*
PRESS15		0.186	0.013	0.000	0.159	0.212	*
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185	*
PHY15	WITH						
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044	*
BULLY15		0.050	0.014	0.001	0.022	0.078	*
PRESS15		0.081	0.014	0.000	0.054	0.107	*
DUTIES15		-0.080	0.014	0.000	-0.109	-0.052	*
CHOICE15	WITH						
BULLY15		-0.115	0.014	0.000	-0.141	-0.087	*
PRESS15		-0.084	0.014	0.000	-0.112	-0.058	*
DUTIES15		0.179	0.014	0.000	0.152	0.205	*
BULLY15	WITH						
PRESS15		0.214	0.013	0.000	0.189	0.239	*
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147	*
PRESS15	WITH						
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173	*
Means							
PHY15		0.005	0.013	0.373	-0.022	0.031	
KES15		0.002	0.014	0.432	-0.026	0.028	
CHOICE15		-0.002	0.014	0.457	-0.030	0.026	
BULLY15		0.001	0.014	0.471	-0.026	0.029	
PRESS15		0.001	0.014	0.481	-0.027	0.027	
DUTIES15		-0.001	0.014	0.473	-0.030	0.028	
Variances							
PHY15		1.000	0.000	0.000	1.000	1.000	
KES15		1.000	0.000	0.000	1.000	1.000	
CHOICE15		1.000	0.000	0.000	1.000	1.000	
BULLY15		1.000	0.000	0.000	1.000	1.000	
PRESS15		1.000	0.000	0.000	1.000	1.000	
DUTIES15		1.000	0.000	0.000	1.000	1.000	

Between Level

PROG	BY						
ACC		0.425	0.060	0.000	0.325	0.556	*
ACT		0.785	0.063	0.000	0.631	0.881	*
EAT		0.878	0.042	0.000	0.772	0.936	*
ALC		0.588	0.108	0.000	0.340	0.751	*
PHY		0.797	0.060	0.000	0.656	0.884	*
PSY		0.818	0.056	0.000	0.684	0.902	*
SMO		0.759	0.071	0.000	0.573	0.864	*
TER		0.645	0.097	0.000	0.410	0.792	*
BEN		0.512	0.121	0.000	0.236	0.702	*
HPR		0.855	0.049	0.000	0.734	0.923	*
SPR		0.826	0.055	0.000	0.696	0.907	*
CUL		0.771	0.124	0.000	0.497	0.993	*
FEL		0.441	0.132	0.002	0.137	0.668	*
SING	BY						
CUL		0.420	0.112	0.000	0.249	0.669	*
PHYCAT16	ON						
PROG		-0.695	0.206	0.005	-0.979	-0.189	*
SING		-0.065	0.302	0.407	-0.687	0.531	
PROG	WITH						
SING		0.009	0.224	0.486	-0.440	0.445	
Intercepts							
ACC		0.840	0.150	0.000	0.536	1.126	*
ACT		0.107	0.130	0.211	-0.142	0.371	
EAT		0.275	0.133	0.024	0.001	0.554	*
ALC		0.044	0.132	0.375	-0.204	0.304	
PHY		0.184	0.134	0.079	-0.078	0.464	
PSY		0.085	0.132	0.259	-0.177	0.356	
SMO		0.230	0.136	0.043	-0.045	0.506	
TER		0.162	0.133	0.105	-0.096	0.420	
BEN		0.041	0.132	0.381	-0.208	0.304	
HPR		0.192	0.135	0.087	-0.075	0.465	
SPR		0.185	0.132	0.083	-0.069	0.453	
CUL		0.021	0.131	0.430	-0.243	0.288	
FEL		0.987	0.168	0.000	0.669	1.353	*
Thresholds							
PHYCAT16\$1		7.592	2.580	0.000	4.889	15.002	*
Variances							

PROG	1.000	0.000	0.000	1.000	1.000	
SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.426	0.233	0.000	0.045	0.893	*
ACC	0.820	0.054	0.000	0.691	0.895	*
ACT	0.384	0.096	0.000	0.224	0.602	*
EAT	0.229	0.071	0.000	0.124	0.405	*
ALC	0.654	0.120	0.000	0.436	0.884	*
PHY	0.364	0.093	0.000	0.219	0.570	*
PSY	0.331	0.088	0.000	0.187	0.532	*
SMO	0.424	0.103	0.000	0.253	0.671	*
TER	0.584	0.118	0.000	0.372	0.832	*
BEN	0.738	0.116	0.000	0.507	0.944	*
HPR	0.270	0.081	0.000	0.149	0.461	*
SPR	0.318	0.088	0.000	0.178	0.515	*
CUL	0.213	0.111	0.000	0.031	0.444	*
FEL	0.805	0.110	0.000	0.554	0.977	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.022	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.574	0.233	0.000	0.107	0.955
ACC	0.180	0.054	0.000	0.105	0.309
ACT	0.616	0.096	0.000	0.398	0.776
EAT	0.771	0.071	0.000	0.595	0.876
ALC	0.346	0.120	0.000	0.116	0.564
PHY	0.636	0.093	0.000	0.430	0.781
PSY	0.669	0.088	0.000	0.468	0.813
SMO	0.576	0.103	0.000	0.329	0.747
TER	0.416	0.118	0.000	0.168	0.628
BEN	0.262	0.116	0.000	0.056	0.493

HPR	0.730	0.081	0.000	0.539	0.851
SPR	0.682	0.088	0.000	0.485	0.822
CUL	0.787	0.111	0.000	0.556	0.969
FEL	0.195	0.110	0.000	0.023	0.446

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16
<hr/>
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0	0	0	0	0

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0	0

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA
PRESS15	DUTIES15

PHYCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
	PRESS15
PRESS15	<u>0</u>
DUTIES15	0

ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>
				<u>4</u>

ALPHA	
	PRESS15
	<u>5</u>
	<u>6</u>

BETA				
	PHYCAT16	PHY15	KES15	CHOICE15
	<u></u>	<u></u>	<u></u>	<u></u>



PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

# PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

# PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

# TAU

PHYCAT16

78

NU

PHYCAT16

ACC

ACT

EAT

ALC

0

34

35

36

37

NU

PHY

PSY

SMO

TER

BEN

38

39

40

41

42

NU

HPR

SPR

CUL

FEL

43

44

45

46

LAMBDA

PROG

SING

PHYCAT16

PHYCAT16

0

0

0

ACC

0

0

0

ACT

47

0

0

EAT

48

0

0

ALC

49

0

0

PHY

50

0

0

PSY

51

0

0

SMO

52

0

0

TER

53

0

0

BEN

54

0

0

HPR

55

0

0

SPR

56

0

0

CUL

57

0

0

FEL

58

0

0

THETA

PHYCAT16

ACC

ACT

EAT

ALC

PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA				
	HPR	SPR	CUL	FEL
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

ALPHA		
PROG	SING	PHYCAT16
0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

	TAU
	PHYCAT16
	<u>0.000</u>

	NU				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

	NU
	PRESS15
	<u>0.000</u>
	DUTIES15
	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000

KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.116		
KES15	0.000	0.000	0.145	
CHOICE15	0.000	0.000	0.000	0.541
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.119
DUTIES15	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15

PRESS15	<u>0.501</u>	
DUTIES15	0.000	<u>0.430</u>

STARTING VALUES FOR BETWEEN

TAU	
PHYCAT16	
	<u>1.110</u>

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<u>0.000</u>	<u>0.485</u>	<u>0.224</u>	<u>0.466</u>	<u>0.673</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>0.342</u>	<u>0.251</u>	<u>0.347</u>	<u>0.385</u>	<u>0.212</u>

NU	HPR	SPR	CUL	FEL
	<u>0.409</u>	<u>0.433</u>	<u>-0.067</u>	<u>45.726</u>

	LAMBDA		
	PROG	SING	PHYCAT16
PHYCAT16	<u>0.000</u>	<u>0.000</u>	<u>1.000</u>
ACC	1.000	0.000	0.000
ACT	1.000	0.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	0.000	0.000
PSY	1.000	0.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000

BEN	1.000	0.000	0.000
HPR	1.000	0.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	1.000	0.000
FEL	1.000	0.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
<hr/>					
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
<hr/>					
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
<hr/>				
HPR	0.426			



SPR	0.000	0.361		
CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG	SING	PHYCAT16	
0.000	0.000	0.000	

BETA			
PROG	SING	PHYCAT16	
0.000	0.000	0.000	
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

PSI			
PROG	SING	PHYCAT16	
1.000			
SING	1.000		
PHYCAT16	0.000	1.000	

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity

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Parameter 59~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.411753D-04				
2	0.918572D-05	0.541374D-04			
3	-0.846018D-05	-0.192196D-04	0.220851D-03		
4	0.152727D-05	0.974778D-05	-0.126479D-04	0.461389D-04	
5	0.711229D-05	0.190855D-04	-0.193837D-04	0.186889D-04	0.190742D-03
6	-0.568151D-05	-0.160744D-04	0.360661D-04	-0.159629D-04	-0.417592D-04
7	0.676753D-05	0.435648D-05	0.423023D-05	-0.869510D-05	-0.261841D-04
8	0.714604D-05	-0.450818D-05	-0.715033D-05	-0.544796D-05	-0.306375D-04
9	0.322338D-05	0.613830D-05	0.338917D-05	0.673829D-05	0.177256D-05
10	0.248839D-06	0.129431D-04	0.183543D-04	0.120427D-04	0.124491D-04
11	0.363114D-05	0.191107D-05	0.423663D-06	0.838810D-06	0.151797D-04
12	-0.355658D-05	-0.245826D-05	-0.403765D-05	-0.671014D-05	0.148549D-04
13	0.429762D-06	0.725408D-06	-0.150854D-05	0.149535D-06	0.150268D-05
14	-0.692238D-06	0.126055D-05	-0.127153D-05	-0.411370D-07	-0.807073D-06
15	-0.270347D-06	0.415298D-06	-0.338696D-05	0.803278D-06	0.157963D-05
16	-0.182216D-05	-0.142404D-05	-0.443570D-05	0.603658D-06	-0.388560D-05

17	-0.210494D-06	-0.140285D-05	0.647100D-05	-0.161451D-05	-0.540122D-06
18	0.225995D-05	0.970028D-05	-0.987828D-05	0.180127D-05	0.440140D-05
19	-0.660940D-06	-0.503820D-06	0.990970D-06	0.440566D-06	-0.290742D-05
20	0.114909D-07	-0.693852D-06	-0.131219D-05	-0.160717D-06	-0.121265D-05
21	-0.175321D-06	0.879483D-06	0.266908D-05	0.151734D-05	0.190909D-05
22	-0.796287D-06	-0.184061D-06	-0.112874D-05	0.889158D-06	0.575544D-06
23	-0.383884D-06	0.636034D-06	-0.193231D-05	0.399726D-06	-0.253987D-05
24	0.566380D-06	-0.768385D-06	0.247607D-05	-0.167819D-05	0.720882D-06
25	-0.398694D-05	0.532585D-05	-0.205069D-05	-0.873205D-06	0.929478D-05
26	-0.214686D-06	-0.983683D-06	0.203887D-05	0.979409D-06	-0.291604D-05
27	-0.152229D-05	-0.900479D-05	0.115188D-04	0.205770D-05	-0.110948D-04
28	-0.118032D-05	-0.723876D-06	0.193773D-06	0.768603D-07	0.658085D-07
29	-0.192159D-05	-0.120162D-05	0.299053D-05	-0.170967D-05	-0.488295D-05
30	0.129173D-05	0.281126D-05	-0.331980D-05	0.124213D-05	-0.648345D-05
31	0.166795D-06	0.798934D-06	-0.105195D-06	-0.250077D-06	0.947455D-08
32	-0.143450D-05	0.383297D-05	0.165648D-06	-0.123437D-05	0.414256D-05
33	0.261685D-05	-0.320356D-05	-0.215080D-04	0.399817D-05	0.752801D-06
34	-0.179577D-04	-0.142009D-04	0.186101D-04	-0.740386D-05	0.377177D-04
35	-0.249411D-04	-0.191573D-05	0.459686D-04	0.848306D-06	0.546492D-04
36	0.808599D-05	0.876873D-05	0.405439D-04	0.216742D-04	0.112219D-03
37	0.128126D-04	-0.357191D-04	0.417945D-04	-0.140742D-04	0.677487D-04
38	-0.300580D-05	-0.594343D-05	0.506220D-04	0.143812D-04	0.953472D-05
39	-0.120438D-04	-0.350303D-05	-0.560425D-04	0.103093D-04	0.677437D-04
40	0.403565D-04	0.302359D-05	0.308970D-04	0.238394D-04	0.594530D-04
41	-0.182990D-04	0.348923D-04	-0.787133D-05	0.173095D-04	0.575349D-04
42	0.411608D-04	-0.328062D-04	0.112550D-03	-0.570580D-05	0.300182D-04
43	0.300451D-04	0.186098D-04	0.386254D-04	0.292625D-04	0.128588D-03
44	-0.167316D-04	0.140690D-05	0.568693D-05	0.161715D-04	0.115549D-03
45	0.825759D-05	0.747897D-05	-0.117659D-04	0.220468D-04	0.945163D-04
46	-0.780591D-05	0.564581D-03	0.331072D-03	0.133427D-02	0.268024D-02
47	0.936665D-04	0.133608D-03	-0.248777D-03	0.780506D-05	0.282508D-03
48	0.165950D-03	0.240113D-03	-0.208892D-03	0.165084D-03	0.718350D-04
49	0.152441D-04	0.187822D-03	0.258682D-04	-0.278678D-05	0.418213D-03
50	0.965521D-04	0.256689D-03	-0.470947D-03	0.113680D-03	-0.347955D-04
51	0.605893D-04	0.230572D-03	-0.575985D-03	0.255849D-03	0.194068D-03
52	0.196104D-03	0.140567D-03	-0.135824D-03	-0.570274D-04	-0.312256D-04
53	0.191077D-04	0.136751D-03	-0.434954D-03	-0.253576D-05	-0.139876D-03
54	0.220637D-03	0.338000D-03	-0.498080D-03	0.745379D-04	0.194874D-03
55	0.230826D-03	0.939152D-04	-0.209394D-03	-0.841884D-04	0.179208D-03
56	0.374754D-03	0.376452D-03	-0.331324D-03	0.160367D-03	0.198730D-03
57	-0.102627D-03	0.187858D-03	-0.726180D-03	-0.193527D-03	0.153104D-03
58	-0.505603D-03	0.730737D-02	-0.184315D-01	0.945201D-02	0.927785D-02
59	-0.595390D-05	0.726438D-05	0.361906D-04	0.196967D-05	-0.407845D-04
60	0.228135D-04	0.320263D-04	-0.733285D-04	0.122538D-04	0.560116D-04

61	0.711222D-05	-0.262247D-05	-0.240917D-04	-0.214502D-04	-0.289135D-04
62	0.812881D-05	0.741730D-04	0.779177D-06	0.724879D-05	-0.111455D-04
63	-0.413036D-05	-0.301621D-04	0.524394D-04	-0.183559D-05	0.506663D-05
64	0.523098D-04	0.271854D-04	0.188140D-04	-0.801494D-05	0.204334D-05
65	0.204369D-05	-0.989639D-05	0.312230D-04	0.117027D-04	0.468688D-04
66	0.658559D-04	-0.194027D-04	0.813768D-05	0.259515D-05	-0.975978D-04
67	-0.888406D-05	-0.275581D-04	-0.639688D-04	-0.868270D-05	-0.703052D-04
68	-0.507368D-05	0.135135D-04	0.181473D-04	-0.248071D-05	-0.162977D-04
69	-0.853989D-05	-0.443487D-05	-0.369835D-04	-0.558201D-05	0.344137D-04
70	-0.186824D-04	-0.478630D-05	0.683273D-04	-0.886768D-05	-0.431796D-04
71	-0.186399D-02	0.742753D-01	-0.903003D-01	0.102652D+00	0.121446D+00
72	0.750654D-05	-0.161665D-05	0.161100D-04	-0.155003D-04	-0.312300D-04
73	-0.361320D-05	0.383339D-04	0.588364D-04	0.477633D-05	0.136000D-04
74	0.995572D-07	-0.317448D-05	0.251345D-05	0.304873D-05	-0.252880D-05
75	0.590349D-05	0.454341D-05	0.127994D-04	0.863850D-05	0.263878D-05
76	0.193564D-04	0.576781D-05	-0.328925D-04	0.251079D-04	0.275958D-04
77	-0.219159D-05	-0.369500D-05	0.726678D-05	-0.319699D-06	0.464190D-05
78	0.814138D-05	0.101263D-05	-0.110853D-04	-0.820708D-05	0.723653D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177357D-03				
7	0.261980D-04	0.502656D-02			
8	-0.259579D-04	-0.368793D-03	0.203747D-02		
9	-0.156797D-04	0.238718D-04	0.131046D-03	0.632303D-03	
10	0.534638D-05	-0.131873D-03	-0.312466D-03	0.155166D-04	0.227855D-02
11	-0.123125D-04	-0.130044D-04	-0.163256D-03	0.146672D-04	-0.214336D-03
12	0.127701D-04	0.517521D-04	0.192574D-03	-0.106989D-03	0.778725D-04
13	0.197177D-07	0.108728D-04	0.225435D-05	-0.255400D-05	-0.527283D-06
14	-0.629305D-08	0.268891D-05	-0.510486D-05	-0.429645D-05	0.104068D-04
15	-0.217911D-05	-0.124568D-04	-0.365162D-05	-0.361043D-05	0.916834D-05
16	-0.158008D-05	-0.125390D-04	0.786705D-05	0.181856D-05	0.199621D-05
17	-0.118634D-05	0.744047D-05	-0.509725D-05	-0.108396D-05	0.425081D-05
18	-0.383605D-05	-0.109201D-04	-0.193470D-04	-0.229753D-04	-0.198528D-04
19	0.886759D-06	-0.928262D-05	0.287756D-05	0.597621D-06	0.421361D-05
20	0.614561D-06	0.521453D-06	-0.176593D-05	-0.115716D-07	0.665137D-05
21	-0.147468D-05	0.116084D-04	-0.203150D-05	0.390500D-05	-0.115812D-04
22	-0.294717D-05	0.815253D-05	0.709989D-06	-0.125302D-05	0.889565D-06
23	-0.127021D-05	0.360958D-05	0.195270D-04	0.218240D-05	0.106430D-04
24	0.218701D-05	-0.376744D-05	-0.265681D-05	-0.597452D-05	0.918969D-05
25	0.178834D-05	-0.266898D-04	-0.820527D-05	0.176544D-05	0.152896D-04
26	-0.338723D-05	0.404793D-05	-0.613564D-05	0.202226D-06	-0.304492D-05

27	0.957056D-06	-0.208339D-04	-0.945554D-05	0.718683D-05	0.312852D-04
28	0.111860D-05	0.230022D-04	-0.105814D-04	-0.194200D-05	-0.558558D-05
29	0.335658D-05	0.163305D-04	-0.171152D-04	0.766774D-06	0.811630D-05
30	-0.109381D-05	-0.276279D-04	-0.896944D-05	-0.372613D-05	-0.165384D-04
31	0.320377D-05	0.163673D-05	0.182249D-06	0.618934D-06	0.342192D-05
32	0.199783D-05	0.373307D-04	0.123697D-05	0.129565D-04	-0.800170D-06
33	-0.130186D-05	0.114129D-04	-0.115430D-04	0.559300D-05	-0.845984D-05
34	0.209905D-04	-0.789138D-04	0.471847D-04	-0.726720D-04	-0.887734D-04
35	0.692536D-04	-0.208085D-03	0.270247D-03	0.380537D-04	-0.749351D-04
36	0.515441D-04	-0.126869D-03	0.306096D-03	0.212828D-03	-0.352146D-06
37	0.980242D-04	-0.624504D-03	0.274846D-03	0.822281D-04	-0.524819D-04
38	0.509818D-04	0.362614D-03	0.119906D-03	0.142770D-03	-0.751522D-05
39	0.106368D-03	-0.407902D-05	0.177007D-03	0.162326D-03	-0.116012D-03
40	0.476907D-04	-0.337094D-03	0.452535D-03	0.534843D-04	-0.495246D-04
41	0.109624D-04	-0.441793D-03	0.211679D-03	0.143172D-03	-0.812457D-04
42	-0.523434D-04	-0.110037D-03	0.758191D-04	0.432440D-04	0.183275D-04
43	0.232438D-04	-0.255978D-03	0.452069D-03	0.142686D-03	-0.809918D-04
44	0.478744D-04	-0.180901D-03	0.265675D-03	0.139831D-03	-0.117792D-03
45	0.181227D-04	-0.388859D-03	0.215233D-03	0.171986D-03	-0.312017D-03
46	-0.311595D-04	-0.566347D-02	0.509064D-02	0.229094D-02	0.829639D-02
47	0.672847D-04	-0.142294D-02	0.171281D-02	0.996048D-04	-0.973930D-04
48	0.746130D-04	-0.168088D-02	0.150735D-02	-0.147282D-03	0.174021D-02
49	-0.628077D-04	0.202745D-02	0.146122D-02	-0.430170D-03	-0.891364D-04
50	-0.144563D-03	-0.124992D-02	0.848639D-03	-0.484116D-04	0.195290D-02
51	0.131354D-03	-0.220106D-02	0.117710D-02	0.120290D-03	0.298059D-03
52	0.776725D-04	0.994274D-03	0.146025D-02	-0.323629D-03	0.312919D-03
53	0.156477D-04	-0.850179D-03	0.813337D-03	-0.651035D-03	0.275384D-03
54	0.499197D-05	0.113465D-02	-0.166556D-03	-0.546095D-03	0.177239D-02
55	0.544486D-04	-0.754289D-03	0.702729D-03	0.426426D-03	0.108911D-02
56	-0.201977D-04	-0.109960D-02	0.168206D-02	0.219258D-03	-0.399795D-03
57	0.180065D-03	-0.393714D-03	0.673587D-03	0.870920D-03	0.108005D-02
58	0.374539D-02	-0.113207D+00	0.613940D-01	0.211614D-02	0.923049D-02
59	0.269562D-04	0.357990D-04	0.492449D-04	0.343103D-04	0.530744D-04
60	-0.358846D-04	0.146189D-03	0.219203D-04	-0.951507D-04	0.134912D-04
61	0.514867D-04	0.745945D-04	-0.966941D-05	0.662939D-04	-0.180855D-05
62	-0.326530D-04	0.348934D-03	-0.101040D-03	0.732473D-04	0.559886D-04
63	0.144005D-04	0.149828D-03	0.102221D-03	-0.105722D-04	-0.398089D-04
64	0.376135D-04	0.231572D-03	0.999782D-04	0.216012D-04	-0.704223D-04
65	-0.116375D-04	-0.184646D-03	-0.127686D-03	0.124361D-03	0.665686D-04
66	0.423956D-04	-0.999396D-05	0.264294D-03	-0.995092D-04	-0.266874D-03
67	0.123898D-04	-0.233381D-03	0.810716D-04	-0.447382D-04	-0.190790D-03
68	0.577388D-04	-0.251829D-03	0.542757D-04	-0.113568D-03	0.230392D-04
69	-0.155371D-04	-0.956123D-04	0.128076D-04	0.104167D-03	-0.576490D-04
70	-0.380440D-05	0.242265D-03	-0.174291D-03	-0.678689D-05	0.222493D-05

71	-0.125787D+00	0.199032D+00	0.123880D+00	-0.191272D+00	-0.246885D+00
72	0.452777D-04	0.309021D-03	-0.628660D-03	-0.352881D-03	-0.195556D-03
73	0.464707D-04	-0.587745D-04	-0.916219D-04	-0.627802D-04	0.301805D-03
74	-0.794758D-05	0.141270D-04	-0.269049D-04	0.627139D-05	-0.139893D-04
75	-0.221463D-05	-0.107085D-03	0.415992D-04	-0.440102D-04	-0.583043D-05
76	0.390964D-05	0.828728D-04	0.809420D-04	0.155385D-03	0.640524D-04
77	0.106838D-05	-0.121280D-04	-0.229895D-04	0.504033D-05	0.101437D-04
78	0.738334D-05	0.106729D-02	0.547409D-04	-0.309523D-05	0.278945D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.680013D-03				
12	0.130708D-03	0.789099D-03			
13	-0.358904D-05	0.693006D-06	0.207559D-04		
14	-0.659155D-06	0.197298D-05	0.413887D-05	0.140583D-04	
15	0.934690D-06	-0.525795D-06	0.412629D-06	0.591378D-05	0.333606D-04
16	0.331546D-06	0.653045D-05	-0.419689D-05	-0.514380D-05	-0.278858D-05
17	-0.302958D-05	0.335475D-05	-0.486997D-06	-0.330194D-05	-0.121353D-04
18	0.666808D-05	0.158461D-05	0.581563D-06	0.116957D-05	0.822587D-05
19	-0.148760D-05	-0.419377D-06	0.995598D-06	0.313150D-05	0.119933D-05
20	-0.172170D-05	-0.302244D-05	-0.105674D-06	0.107874D-05	0.679731D-05
21	-0.121392D-05	-0.203377D-05	-0.669594D-06	-0.856925D-06	-0.901978D-06
22	0.419346D-05	0.422929D-05	0.432735D-06	-0.790765D-07	0.117124D-05
23	-0.962711D-05	-0.170276D-05	0.427993D-05	0.475934D-05	0.385958D-05
24	-0.230859D-05	0.292372D-05	0.800287D-06	0.379546D-05	0.101244D-04
25	0.625238D-05	-0.151062D-04	-0.190600D-05	-0.113045D-05	-0.355105D-05
26	-0.239174D-05	-0.613758D-05	0.870816D-06	0.174997D-05	0.148244D-05
27	-0.232841D-04	0.796013D-05	0.923698D-08	0.477149D-05	0.727796D-05
28	0.220629D-05	0.445740D-05	-0.248807D-05	-0.544834D-05	-0.238801D-05
29	-0.124634D-05	-0.660398D-05	-0.147093D-05	-0.321880D-05	-0.118614D-04
30	-0.813991D-06	-0.307462D-05	0.220960D-05	0.220997D-05	0.281725D-05
31	0.370219D-05	0.199350D-05	-0.943924D-06	-0.232073D-06	-0.236121D-05
32	0.214089D-04	0.201082D-05	-0.232766D-05	-0.242646D-05	-0.507653D-05
33	-0.156213D-04	0.401054D-05	0.552267D-05	0.222095D-05	-0.127814D-05
34	-0.677923D-05	0.144746D-05	0.136703D-06	-0.266089D-05	-0.681586D-05
35	0.642244D-04	0.224633D-03	0.396566D-05	0.353445D-05	-0.312090D-04
36	0.228103D-04	0.160984D-03	0.119454D-04	-0.147554D-04	-0.110193D-04
37	0.678700D-04	0.144502D-03	-0.951396D-05	-0.416945D-05	-0.212588D-06
38	0.562448D-04	0.985679D-04	0.394308D-05	-0.263635D-05	-0.325441D-04
39	0.217775D-03	0.231889D-03	-0.707835D-05	-0.737854D-05	-0.106977D-04
40	0.764072D-04	0.176585D-03	0.587925D-05	-0.149661D-04	-0.466023D-04
41	0.175381D-03	0.224402D-03	0.269008D-04	-0.219408D-06	0.102914D-04

42	0.219040D-03	0.155707D-03	-0.100159D-04	-0.793278D-05	-0.155173D-04
43	0.134461D-03	0.194033D-03	0.635557D-05	-0.925433D-06	0.349514D-05
44	0.557813D-04	0.543252D-04	0.789783D-06	-0.121428D-04	-0.226207D-04
45	0.203638D-04	0.115064D-03	-0.100674D-04	0.640204D-05	0.293172D-05
46	-0.595921D-02	0.445723D-02	0.149965D-03	-0.465196D-03	0.529279D-03
47	0.907545D-04	0.519029D-03	0.190817D-04	-0.119131D-03	0.761185D-04
48	-0.109814D-03	0.129527D-02	0.215930D-05	-0.138542D-03	-0.128415D-04
49	-0.254905D-03	0.981473D-03	-0.376075D-04	-0.764508D-04	0.833353D-04
50	0.158592D-04	-0.178946D-04	-0.217201D-04	-0.480037D-04	0.103475D-04
51	-0.127811D-04	0.520582D-03	-0.939245D-04	-0.159200D-03	-0.276821D-04
52	-0.376375D-03	0.643579D-03	-0.654740D-04	-0.778222D-04	-0.440220D-04
53	0.271498D-03	0.551967D-03	-0.592018D-04	-0.163803D-03	-0.811824D-04
54	0.901489D-04	0.552328D-03	-0.548598D-04	0.139288D-04	0.794424D-04
55	-0.439228D-04	0.794033D-03	0.327441D-04	-0.835882D-04	-0.351889D-04
56	0.398907D-03	0.519223D-03	0.593301D-04	-0.828592D-04	-0.155380D-04
57	0.143568D-03	0.650893D-03	-0.508812D-04	-0.799193D-05	0.628195D-04
58	-0.101891D-01	0.598405D-02	0.222013D-02	-0.139808D-02	-0.472698D-02
59	0.610564D-05	0.634834D-04	-0.352208D-05	-0.106281D-05	0.180781D-05
60	-0.373170D-05	0.149901D-03	-0.714600D-05	-0.181924D-04	-0.176670D-04
61	-0.229263D-04	-0.717471D-04	-0.477077D-05	-0.654222D-05	-0.303775D-04
62	-0.271026D-03	-0.193253D-03	-0.118265D-04	-0.596034D-05	-0.357180D-04
63	0.383921D-05	0.123024D-03	0.154528D-04	-0.356816D-06	0.246420D-04
64	0.787021D-04	0.783915D-05	0.286365D-05	0.489241D-05	-0.157168D-04
65	0.252481D-04	0.145286D-04	0.185599D-04	-0.258935D-04	-0.515304D-04
66	0.101481D-03	0.188278D-03	-0.877626D-05	0.607991D-05	0.372652D-04
67	-0.116024D-04	0.124830D-03	-0.160254D-04	-0.413766D-05	0.683461D-05
68	-0.826467D-04	0.389908D-04	0.172358D-05	-0.249097D-05	0.583865D-05
69	-0.117601D-04	-0.185791D-04	-0.125325D-04	0.938366D-06	0.761933D-05
70	0.228935D-03	0.645098D-04	0.245213D-04	0.448688D-05	0.120225D-06
71	0.998968D-01	-0.121937D+00	0.543215D-01	-0.309172D-01	-0.100190D+00
72	-0.205402D-03	-0.286520D-03	-0.778498D-05	0.234633D-04	-0.376812D-04
73	-0.169023D-05	-0.843322D-04	0.429483D-07	-0.410358D-05	-0.283905D-04
74	-0.377877D-05	-0.242440D-04	-0.120651D-05	0.201030D-05	0.354551D-05
75	-0.151498D-04	0.442337D-05	0.295396D-05	-0.387417D-05	-0.302007D-05
76	0.127035D-04	-0.705206D-04	-0.857359D-05	-0.236383D-05	0.170473D-04
77	0.881933D-05	-0.772853D-05	-0.493854D-06	-0.554341D-06	0.546497D-05
78	-0.305159D-04	0.108700D-04	0.112835D-05	0.372613D-05	-0.332243D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512250D-04				
17	0.119464D-04	0.645779D-04			



18	-0.105692D-04	-0.450368D-04	0.479879D-03		
19	-0.222378D-05	-0.749731D-06	-0.592178D-06	0.117591D-04	
20	-0.134846D-06	-0.488425D-05	0.147044D-05	0.283102D-05	0.143826D-04
21	0.672736D-06	0.158906D-04	-0.263644D-04	-0.177092D-05	-0.473958D-05
22	-0.472456D-06	-0.305364D-06	0.813787D-06	0.676986D-06	0.518904D-05
23	-0.324628D-05	-0.209013D-05	0.134101D-05	0.554659D-05	0.754573D-06
24	-0.156867D-05	-0.936695D-05	0.798497D-05	0.119479D-05	0.599535D-05
25	0.773514D-05	0.276345D-04	-0.364581D-04	0.191441D-05	-0.991958D-06
26	-0.259742D-06	-0.254346D-05	-0.273085D-05	0.206904D-05	0.469111D-05
27	-0.638538D-05	-0.127499D-04	-0.227029D-06	0.193712D-05	0.591537D-05
28	0.984180D-05	0.178564D-05	-0.118552D-05	-0.390125D-05	-0.114690D-05
29	0.306706D-05	0.132392D-04	-0.984747D-05	-0.128021D-05	-0.576949D-05
30	-0.926666D-05	-0.239745D-04	0.780853D-04	0.471086D-06	0.152703D-05
31	0.539657D-06	0.410680D-05	-0.100172D-04	-0.205464D-05	-0.590805D-05
32	0.536079D-05	0.938457D-05	-0.867343D-05	0.459879D-06	-0.381515D-05
33	-0.317076D-05	-0.663737D-05	0.280084D-04	0.148228D-05	0.145057D-05
34	0.258935D-04	-0.975909D-05	-0.540962D-04	-0.387902D-06	0.109610D-05
35	0.237465D-04	0.120203D-04	0.846404D-04	0.546366D-05	-0.926225D-05
36	0.413072D-04	-0.430339D-05	0.148001D-03	0.206090D-05	0.135400D-04
37	0.279663D-04	0.150119D-04	-0.630028D-04	0.786217D-05	-0.153368D-04
38	0.423000D-04	0.372590D-04	-0.761411D-05	0.123630D-04	0.581207D-05
39	0.467638D-04	0.315194D-04	0.196564D-04	0.164632D-04	-0.652819D-05
40	0.320736D-04	0.372046D-04	-0.290875D-05	0.121721D-04	-0.101129D-04
41	0.263514D-04	-0.264928D-04	-0.380769D-04	-0.162909D-05	0.798874D-05
42	-0.403166D-04	0.256148D-04	0.238569D-05	0.221582D-04	0.142143D-05
43	0.424815D-04	-0.981920D-05	-0.152582D-04	0.181724D-04	-0.702326D-05
44	0.568247D-04	0.203658D-04	-0.157643D-04	0.896859D-05	-0.390489D-06
45	0.246395D-04	-0.663549D-05	0.741758D-04	0.140838D-04	-0.388547D-05
46	0.725905D-03	-0.952606D-03	-0.458253D-02	-0.102581D-02	0.490224D-03
47	0.500803D-04	0.192233D-03	-0.216617D-03	-0.958718D-04	-0.104539D-03
48	-0.732457D-04	0.880487D-04	-0.166289D-03	-0.733162D-04	-0.104189D-03
49	0.765812D-04	0.140316D-03	-0.285188D-03	-0.627198D-04	-0.784144D-04
50	-0.159904D-03	0.898530D-04	-0.156612D-03	0.427598D-04	-0.662569D-04
51	-0.102478D-04	0.894743D-04	-0.836762D-04	-0.444549D-04	-0.438549D-04
52	-0.285699D-04	0.171369D-03	-0.147630D-03	-0.902199D-04	-0.109095D-03
53	-0.133909D-03	0.146127D-03	-0.223660D-04	-0.607518D-04	-0.888138D-04
54	-0.121451D-03	-0.176907D-03	-0.223655D-03	-0.900880D-04	0.900097D-05
55	-0.188195D-03	0.167372D-03	-0.295162D-03	-0.430539D-04	-0.232143D-05
56	-0.821841D-04	0.188870D-03	0.489982D-03	-0.121243D-03	-0.149928D-03
57	-0.770556D-05	0.135814D-03	0.378980D-04	-0.608994D-05	-0.107664D-03
58	-0.296003D-02	0.109540D-01	-0.347824D-01	-0.403814D-02	-0.378391D-02
59	0.104215D-06	-0.205645D-04	-0.116460D-04	-0.523471D-05	-0.182235D-05
60	0.171096D-04	-0.946444D-05	0.349396D-04	-0.204529D-05	-0.674831D-05
61	-0.281519D-05	-0.684670D-07	0.275627D-04	-0.476754D-06	-0.280913D-05

62	-0.252024D-06	-0.246106D-05	0.187146D-04	0.530106D-05	-0.127210D-05
63	0.316677D-04	0.233377D-04	-0.630538D-04	0.173789D-05	0.678154D-05
64	0.310993D-04	-0.716725D-05	0.546064D-04	0.855077D-05	-0.221223D-05
65	0.310873D-05	0.535262D-04	-0.100619D-03	-0.241952D-04	-0.408744D-04
66	-0.118556D-04	-0.900388D-05	-0.915748D-04	0.212810D-04	-0.131097D-04
67	-0.192435D-04	-0.321580D-05	-0.672070D-05	-0.579914D-05	-0.274908D-04
68	0.218478D-04	-0.642671D-06	-0.866869D-04	0.359034D-05	-0.339482D-05
69	0.153198D-04	0.578552D-04	-0.219473D-04	0.883663D-06	-0.109656D-04
70	-0.221782D-04	0.251962D-04	-0.990657D-04	-0.238249D-05	-0.682418D-05
71	-0.118947D+00	-0.296694D-01	0.224078D-01	0.468108D-01	-0.193338D-01
72	-0.273236D-06	0.229780D-05	0.718158D-04	-0.268825D-05	-0.256412D-05
73	0.242307D-04	0.131517D-04	0.992915D-04	0.204079D-04	0.194820D-04
74	0.161171D-05	-0.521634D-05	0.139482D-04	0.212904D-05	0.250413D-05
75	0.287764D-05	0.292576D-05	-0.527561D-05	0.639030D-06	0.337845D-05
76	0.277673D-04	-0.886219D-05	0.731768D-04	-0.181063D-05	0.390395D-05
77	0.269299D-05	-0.165871D-05	0.857289D-05	0.212443D-05	0.477632D-05
78	-0.955447D-05	-0.240242D-05	0.253689D-04	0.101581D-05	0.263890D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.517681D-04				
22	-0.572952D-05	0.235133D-04			
23	-0.758701D-06	0.486635D-06	0.441998D-04		
24	-0.339311D-05	0.226992D-05	0.914514D-05	0.576190D-04	
25	0.200903D-04	-0.103594D-05	-0.540939D-05	-0.198174D-04	0.212688D-03
26	-0.283845D-05	0.951304D-05	0.446316D-05	0.121837D-04	-0.934631D-05
27	-0.670042D-05	0.632445D-05	0.181638D-04	0.368892D-04	-0.327626D-04
28	-0.675808D-06	-0.467057D-06	-0.101019D-04	-0.342482D-05	0.460859D-05
29	0.154684D-05	-0.422822D-06	-0.580048D-05	-0.120319D-04	0.969717D-05
30	-0.183279D-04	0.351718D-05	0.512016D-05	0.529464D-05	-0.399003D-04
31	0.612301D-05	-0.755293D-05	-0.150591D-05	-0.592963D-05	0.853649D-05
32	0.176788D-05	0.629095D-06	-0.109682D-04	-0.255341D-04	0.458029D-04
33	-0.392046D-05	0.348846D-06	0.855707D-05	0.594492D-05	-0.209121D-04
34	0.220952D-04	0.996351D-05	0.908317D-05	0.957014D-05	0.225632D-04
35	0.667758D-04	-0.153930D-05	0.282854D-04	0.138455D-05	-0.422509D-05
36	0.649854D-04	0.166398D-04	0.283453D-04	-0.157531D-04	0.529047D-04
37	0.695663D-04	0.204867D-05	0.406557D-04	-0.191138D-04	0.727811D-04
38	0.752128D-04	0.181204D-05	0.280012D-04	-0.325173D-04	0.325923D-04
39	0.936743D-04	0.104963D-04	0.412686D-04	-0.341845D-04	0.588006D-04
40	0.913345D-04	-0.470952D-05	0.891810D-04	0.120040D-05	0.181240D-04
41	0.772372D-04	0.271356D-04	0.381703D-04	0.145311D-04	0.189135D-04
42	0.406947D-04	0.167046D-04	0.241752D-04	-0.237105D-04	0.157563D-04

43	0.941528D-04	-0.148217D-04	0.416156D-04	-0.232552D-04	0.458531D-04
44	0.781093D-04	0.471154D-05	0.352398D-04	-0.160506D-04	0.430497D-04
45	0.820009D-04	-0.483211D-05	0.377619D-04	-0.100391D-04	0.729575D-04
46	0.273636D-02	-0.206966D-03	0.910528D-03	-0.785808D-03	0.156951D-02
47	-0.158224D-03	0.744480D-05	0.111482D-03	-0.974416D-04	0.158077D-03
48	-0.474725D-04	-0.355950D-04	-0.509706D-04	-0.257899D-03	-0.112179D-03
49	-0.107784D-03	0.108811D-03	-0.654118D-04	0.102751D-03	-0.236357D-03
50	-0.176818D-03	-0.116349D-04	0.126960D-04	-0.183397D-03	0.299919D-03
51	-0.692053D-04	0.263884D-04	0.461073D-04	-0.403856D-03	0.710405D-04
52	-0.786170D-04	-0.110568D-03	-0.970684D-04	-0.368962D-03	0.309904D-03
53	0.616976D-04	-0.472650D-04	-0.671626D-04	-0.211894D-03	-0.815267D-04
54	-0.118303D-03	0.315737D-04	-0.913896D-04	-0.585299D-04	0.166256D-03
55	-0.105501D-03	0.113257D-04	0.870502D-04	0.366042D-04	-0.548797D-03
56	0.717773D-05	-0.843952D-04	0.884760D-04	-0.100232D-03	-0.628915D-04
57	-0.135643D-03	-0.919348D-04	0.705017D-04	-0.371186D-03	0.633572D-04
58	0.778582D-02	-0.249226D-02	0.420114D-03	-0.358126D-02	-0.425739D-02
59	0.113160D-04	-0.594500D-06	-0.374462D-06	0.175314D-04	0.491485D-05
60	0.149695D-04	-0.855260D-06	0.136976D-05	0.122996D-04	0.203355D-04
61	-0.200039D-04	-0.934691D-05	-0.563894D-05	0.134415D-04	-0.197701D-05
62	-0.384969D-04	0.118359D-04	0.118634D-06	-0.145134D-04	0.236857D-04
63	-0.205877D-05	0.114180D-04	-0.138152D-05	-0.142652D-04	-0.693818D-05
64	-0.124936D-05	0.237990D-05	-0.315153D-04	0.333289D-04	-0.190472D-04
65	0.925475D-05	-0.188920D-04	0.138656D-04	-0.415766D-04	-0.115884D-03
66	-0.204381D-04	-0.295533D-04	0.552570D-04	-0.534969D-04	-0.578144D-04
67	-0.369066D-04	-0.135732D-04	-0.451318D-04	-0.120213D-05	-0.482105D-04
68	-0.765830D-06	-0.624610D-05	-0.334475D-05	0.728093D-05	0.246172D-04
69	0.221282D-04	-0.629575D-05	-0.164305D-05	-0.290070D-04	0.577140D-04
70	-0.108350D-05	0.194121D-04	0.329835D-04	0.306779D-04	-0.117494D-04
71	-0.798618D-01	-0.451850D-01	0.413685D-01	-0.242151D-01	-0.178493D+00
72	0.740714D-04	-0.775529D-05	0.335306D-04	-0.308792D-04	0.714594D-04
73	-0.355620D-04	0.255561D-04	-0.182349D-04	0.239809D-04	0.116808D-03
74	0.364033D-05	0.164323D-05	0.339476D-05	0.656756D-05	-0.688150D-05
75	0.590474D-05	-0.212348D-05	0.848777D-06	0.920852D-05	0.159904D-04
76	0.380939D-05	0.825300D-06	0.937536D-05	-0.717741D-05	0.119362D-04
77	-0.514030D-05	0.396007D-05	0.115154D-05	0.411717D-05	0.193530D-05
78	0.143402D-04	0.149023D-05	0.939072D-05	-0.492780D-05	0.230495D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.490723D-04				
27	0.467530D-04	0.403270D-03			
28	-0.126459D-05	-0.420868D-05	0.405009D-04		

29	-0.285261D-05	-0.116749D-04	0.749597D-05	0.502432D-04	
30	0.184168D-05	0.416545D-05	-0.506092D-05	-0.191625D-04	0.199963D-03
31	-0.919415D-05	-0.926430D-05	0.126534D-05	0.120015D-04	-0.145969D-04
32	-0.191437D-04	-0.807950D-04	0.737725D-05	0.227334D-04	-0.244958D-04
33	0.438393D-05	0.147988D-04	-0.776686D-05	-0.345749D-04	0.613283D-04
34	-0.800356D-05	0.486444D-04	0.799647D-05	-0.323711D-05	-0.341913D-05
35	-0.585649D-04	-0.113658D-03	0.159341D-04	-0.139591D-04	0.853190D-04
36	-0.444711D-04	0.368495D-05	0.216790D-04	0.865492D-06	0.563198D-04
37	-0.407325D-04	0.764740D-05	-0.564672D-05	-0.914789D-05	-0.550032D-05
38	-0.424278D-04	0.538742D-06	0.178928D-05	0.164269D-04	-0.484865D-05
39	-0.584194D-04	-0.585788D-04	-0.823578D-05	0.716602D-05	0.611004D-04
40	-0.465290D-04	-0.356273D-04	-0.487412D-04	-0.120593D-04	0.724185D-04
41	-0.307727D-04	0.561716D-05	-0.214330D-04	0.931748D-06	0.186309D-04
42	-0.620721D-05	0.305216D-04	-0.264302D-04	0.463774D-07	0.354714D-04
43	-0.575150D-04	-0.533753D-04	-0.166372D-04	-0.251514D-04	0.981377D-04
44	-0.562928D-04	-0.900701D-04	0.650437D-05	-0.114397D-04	0.111697D-04
45	-0.560726D-04	0.722645D-05	-0.413499D-04	0.168581D-04	0.461264D-04
46	-0.215826D-02	-0.160206D-02	-0.184701D-03	-0.246365D-03	0.846027D-03
47	-0.872709D-04	0.101279D-03	-0.831959D-04	0.545070D-04	0.933312D-05
48	-0.978809D-04	-0.298018D-03	-0.768145D-05	0.253220D-03	-0.203560D-03
49	0.593388D-04	0.114169D-03	0.417353D-04	0.887514D-04	-0.292302D-03
50	0.172838D-04	-0.203168D-03	-0.108230D-03	0.242117D-03	-0.181408D-03
51	-0.870085D-05	-0.321813D-03	0.175372D-04	0.136125D-03	-0.147196D-03
52	-0.379746D-04	-0.536361D-04	0.119252D-03	0.387266D-03	-0.527562D-03
53	-0.150126D-03	-0.174612D-03	-0.192206D-04	0.188677D-03	0.296674D-03
54	0.157479D-03	0.321495D-03	-0.136691D-03	-0.801505D-04	-0.645907D-04
55	-0.964280D-04	0.253004D-03	-0.109804D-03	0.189420D-03	-0.285591D-03
56	0.314960D-04	0.224029D-04	-0.626427D-04	0.116660D-03	-0.493210D-03
57	-0.123762D-03	-0.953298D-04	0.444763D-04	0.315069D-03	0.689431D-04
58	0.154563D-02	0.133528D-01	0.843045D-03	0.493079D-02	-0.217181D-01
59	0.492129D-05	-0.381258D-04	0.594760D-05	-0.281030D-05	-0.338738D-04
60	-0.858984D-05	0.632063D-04	0.830128D-05	0.644734D-06	0.901406D-05
61	0.646754D-05	0.662909D-04	0.215343D-04	-0.291285D-04	-0.389501D-04
62	-0.269803D-04	-0.885145D-04	-0.274274D-04	0.348821D-04	0.494887D-04
63	0.103946D-04	0.465517D-04	-0.124246D-04	-0.425839D-04	-0.212623D-04
64	-0.379300D-05	-0.179925D-04	-0.170199D-05	0.499827D-05	0.557903D-04
65	-0.645309D-05	0.778080D-04	0.259300D-04	-0.269211D-05	0.120496D-03
66	-0.133901D-04	0.182789D-03	-0.149652D-04	-0.159947D-04	0.115767D-04
67	-0.300646D-04	0.252141D-04	0.209241D-04	0.286392D-04	-0.402509D-04
68	0.148339D-05	-0.234977D-04	0.638850D-05	-0.853269D-05	-0.377041D-04
69	-0.139026D-05	0.247878D-04	0.865452D-05	-0.253250D-04	-0.387522D-04
70	0.677524D-05	-0.257528D-04	-0.230793D-04	-0.120402D-04	-0.113585D-04
71	-0.109916D+00	-0.482166D-01	-0.117401D+00	-0.537135D-01	0.396212D-01
72	-0.201641D-04	-0.923154D-05	-0.165405D-06	-0.382141D-04	0.755968D-04

73	0.296664D-04	0.696592D-04	-0.135838D-04	0.384553D-04	-0.170270D-04
74	0.327975D-05	0.119872D-04	0.191772D-05	-0.426074D-05	0.134103D-04
75	0.701040D-05	-0.124210D-04	-0.608219D-05	-0.135357D-04	-0.111267D-04
76	0.230671D-05	0.423145D-04	0.790526D-05	0.482162D-05	-0.293304D-05
77	0.127817D-05	-0.415478D-05	0.762415D-06	-0.317650D-05	0.343071D-05
78	-0.862050D-05	-0.367913D-05	0.170212D-05	0.591430D-05	-0.226005D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391565D-04				
32	0.200788D-04	0.190389D-03			
33	-0.284325D-04	-0.658456D-04	0.287573D-03		
34	-0.271487D-05	-0.592693D-05	-0.238045D-04	0.527572D-02	
35	0.162471D-04	-0.721193D-05	0.237660D-04	0.293955D-02	0.202696D-01
36	0.291964D-05	0.146051D-07	0.378684D-04	0.373854D-02	0.147541D-01
37	0.315009D-04	0.182586D-04	0.220921D-04	0.282551D-02	0.939981D-02
38	-0.530679D-05	-0.113401D-04	0.157753D-04	0.352034D-02	0.134215D-01
39	0.126660D-04	0.327926D-04	0.829546D-04	0.371201D-02	0.139596D-01
40	0.595983D-05	-0.136560D-04	0.345204D-04	0.391736D-02	0.158652D-01
41	0.376185D-05	0.267539D-04	0.197871D-04	0.275144D-02	0.107575D-01
42	-0.250984D-04	0.422271D-04	-0.120550D-05	0.169222D-02	0.755472D-02
43	0.146220D-04	-0.850418D-05	0.516345D-04	0.387569D-02	0.144392D-01
44	0.497790D-05	0.355882D-04	0.509191D-04	0.358546D-02	0.140019D-01
45	0.216095D-04	0.269748D-05	0.290627D-04	0.314899D-02	0.124043D-01
46	0.113758D-02	-0.131054D-02	-0.251177D-03	0.439024D-01	0.241089D+00
47	0.601599D-04	-0.174091D-03	0.123056D-03	0.155075D-02	0.291524D-02
48	0.189978D-03	-0.253047D-03	-0.234419D-03	0.400365D-03	0.411148D-02
49	0.793421D-05	-0.111305D-03	-0.524144D-03	-0.111540D-02	0.923520D-03
50	0.181379D-03	-0.223658D-03	-0.364829D-03	0.196691D-03	0.792429D-03
51	0.193822D-03	-0.822904D-04	-0.775187D-04	0.424346D-03	0.285338D-02
52	0.199565D-03	-0.253775D-03	-0.461912D-03	0.213013D-02	0.337239D-02
53	0.249693D-03	-0.417263D-03	-0.212669D-03	0.114463D-02	0.715011D-02
54	0.542770D-04	-0.412941D-03	-0.358715D-05	0.475800D-03	-0.524840D-02
55	0.215096D-03	-0.242394D-03	-0.479913D-03	0.168376D-02	-0.157995D-02
56	0.154441D-03	-0.296345D-03	0.184717D-03	0.210701D-02	0.228350D-02
57	0.346306D-03	-0.660886D-04	-0.713725D-03	0.757191D-03	0.156106D-02
58	0.783328D-02	0.564658D-02	-0.342265D-01	-0.747923D-02	-0.131554D-01
59	0.104929D-04	-0.287690D-04	-0.291355D-04	-0.131487D-03	-0.159806D-03
60	0.241261D-04	0.365521D-04	0.947015D-05	0.257720D-04	-0.363691D-03
61	0.986267D-05	-0.194182D-05	0.507702D-04	-0.224371D-03	-0.235477D-03
62	-0.210807D-04	0.574581D-04	0.796714D-04	0.150079D-04	-0.353320D-03
63	-0.332816D-04	0.548598D-04	0.176552D-04	-0.613255D-04	0.202915D-03

64	-0.344778D-05	-0.366910D-05	0.429387D-04	-0.319371D-04	0.502172D-03
65	-0.198398D-04	0.417273D-04	0.377803D-04	0.612849D-03	0.411154D-03
66	-0.276683D-04	-0.168295D-04	-0.662616D-04	0.239250D-04	-0.122379D-03
67	0.104968D-04	-0.252778D-04	0.171034D-04	-0.450232D-03	0.125075D-03
68	-0.629033D-05	-0.508092D-04	0.143932D-04	0.447741D-03	-0.746356D-04
69	-0.956855D-05	-0.591990D-06	0.181983D-04	-0.162227D-03	-0.204297D-03
70	-0.100701D-04	-0.109905D-04	-0.503426D-04	0.335598D-03	0.168919D-03
71	-0.459832D-01	0.160813D+00	-0.179430D+00	0.358051D-01	0.207916D+01
72	-0.555318D-04	-0.136863D-04	0.549798D-04	0.101074D-05	-0.213228D-04
73	-0.173404D-05	0.268241D-04	-0.118088D-03	-0.357037D-03	-0.471882D-03
74	-0.552770D-05	0.245825D-05	0.694744D-05	-0.687854D-04	-0.464363D-04
75	-0.558832D-05	0.774393D-06	0.258092D-05	0.636126D-04	0.327550D-04
76	-0.193282D-04	0.176253D-04	0.237049D-04	-0.309421D-03	0.286251D-03
77	-0.169844D-05	0.288569D-05	0.147274D-05	-0.253281D-04	0.335845D-04
78	0.821282D-05	0.623784D-05	-0.115795D-04	0.404994D-03	0.191572D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.233255D-01				
37	0.116203D-01	0.242173D-01			
38	0.163949D-01	0.109732D-01	0.230465D-01		
39	0.166660D-01	0.109431D-01	0.153333D-01	0.232812D-01	
40	0.191623D-01	0.127912D-01	0.178437D-01	0.180229D-01	0.356378D-01
41	0.135723D-01	0.871427D-02	0.121495D-01	0.124043D-01	0.147025D-01
42	0.925970D-02	0.635695D-02	0.876714D-02	0.815394D-02	0.983308D-02
43	0.182151D-01	0.118415D-01	0.165738D-01	0.169360D-01	0.193327D-01
44	0.169354D-01	0.113737D-01	0.158469D-01	0.157791D-01	0.175491D-01
45	0.156205D-01	0.105362D-01	0.139966D-01	0.143351D-01	0.161900D-01
46	0.317439D+00	0.232969D+00	0.277278D+00	0.284175D+00	0.317929D+00
47	0.382858D-02	0.487480D-02	-0.739460D-03	0.419646D-02	0.141780D-02
48	0.341886D-02	0.108686D-02	-0.443160D-03	0.286382D-03	0.241701D-02
49	-0.103417D-02	-0.571394D-02	-0.995772D-03	-0.371560D-02	0.163413D-02
50	-0.903393D-03	0.172660D-02	-0.706958D-03	-0.333277D-02	-0.389745D-02
51	0.269470D-03	0.996976D-03	-0.147611D-02	-0.694694D-03	-0.152069D-03
52	0.674318D-03	0.378402D-02	-0.313552D-02	-0.280793D-02	-0.175472D-02
53	0.379588D-02	0.333783D-02	0.132661D-02	0.385940D-02	0.198106D-02
54	-0.282110D-02	0.148343D-02	-0.313922D-02	-0.233628D-02	-0.317257D-02
55	0.307499D-03	0.404609D-02	-0.331953D-02	-0.447795D-02	-0.356822D-02
56	0.274343D-02	0.414150D-02	-0.138659D-02	-0.190589D-02	0.175981D-03
57	-0.113534D-03	-0.980876D-03	-0.491369D-02	-0.420160D-02	-0.316580D-02
58	-0.881020D-01	0.571358D-01	-0.116631D+00	-0.181693D+00	-0.347340D+00
59	-0.136083D-03	0.703987D-04	-0.592813D-04	0.130574D-03	0.104326D-03

60	-0.199435D-04	-0.126640D-04	-0.432071D-04	-0.129137D-03	0.361464D-03
61	0.479700D-06	-0.227073D-03	-0.492635D-03	-0.261013D-03	-0.240233D-03
62	-0.780111D-03	0.365649D-03	-0.388514D-03	-0.623121D-03	0.604711D-03
63	-0.199480D-03	0.328585D-03	0.445747D-03	-0.192284D-03	-0.620392D-03
64	0.477109D-03	0.286646D-03	0.470299D-03	0.806515D-03	0.856546D-03
65	0.130750D-02	0.763276D-03	0.759843D-03	0.143291D-02	0.778409D-03
66	0.525468D-04	0.155142D-03	0.739011D-03	0.355749D-03	0.109913D-02
67	0.556316D-03	0.486293D-03	0.533928D-03	0.809954D-03	-0.166023D-03
68	-0.765709D-05	-0.988484D-03	-0.346769D-04	-0.112426D-03	0.617121D-05
69	-0.390014D-03	-0.166714D-03	0.250830D-04	0.129221D-03	0.341394D-03
70	0.855178D-03	0.283554D-04	-0.259826D-03	-0.136278D-03	0.524197D-03
71	0.573403D+00	0.116920D+01	0.927965D+00	0.167891D+01	0.329370D+00
72	0.363692D-03	0.107337D-02	0.872308D-03	0.119919D-02	0.137784D-02
73	-0.963645D-03	-0.350610D-03	-0.131034D-02	-0.602498D-03	-0.988122D-03
74	-0.458662D-04	-0.140215D-03	0.347213D-04	-0.230211D-04	-0.469661D-05
75	0.115186D-03	0.813048D-04	0.146186D-03	0.187766D-03	0.695452D-04
76	-0.387135D-03	-0.374175D-03	0.264070D-03	0.225465D-03	-0.691638D-03
77	0.802592D-05	0.893615D-05	-0.264973D-04	0.301131D-04	0.642567D-04
78	0.214953D-02	0.123332D-02	0.211039D-02	0.218513D-02	0.235194D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.242939D-01				
42	0.628473D-02	0.187771D-01			
43	0.134928D-01	0.910387D-02	0.257833D-01		
44	0.126897D-01	0.823260D-02	0.170388D-01	0.232076D-01	
45	0.115813D-01	0.802876D-02	0.154382D-01	0.145242D-01	0.212348D-01
46	0.248399D+00	0.157505D+00	0.308357D+00	0.280678D+00	0.247677D+00
47	0.121015D-03	-0.125290D-02	0.213481D-02	0.641090D-03	0.267423D-02
48	-0.151832D-02	-0.104068D-02	0.385226D-02	0.109299D-02	0.212297D-02
49	-0.120226D-02	-0.100760D-02	-0.133676D-02	-0.193695D-02	0.304730D-04
50	-0.472898D-02	0.971281D-03	-0.848562D-03	-0.242965D-02	-0.306894D-02
51	-0.348106D-02	0.139712D-02	0.213512D-02	-0.235626D-03	0.987742D-03
52	-0.227175D-02	0.153460D-02	0.477278D-03	-0.341800D-02	0.176358D-02
53	-0.369843D-02	0.688356D-03	0.202426D-02	0.195400D-02	0.153070D-02
54	-0.123491D-02	-0.100535D-02	-0.180456D-02	-0.303083D-02	-0.323340D-02
55	-0.347851D-02	0.122543D-02	-0.311559D-02	-0.448246D-02	-0.506798D-03
56	-0.716673D-04	0.357346D-03	0.264704D-02	0.541983D-03	0.119671D-02
57	-0.353631D-02	0.101682D-03	-0.936349D-03	-0.237889D-02	0.353898D-03
58	-0.213378D+00	-0.110351D+00	-0.105013D+00	-0.142253D+00	-0.831952D-01
59	-0.707504D-04	0.627212D-04	-0.161725D-03	-0.321373D-03	-0.908280D-04
60	-0.102221D-04	0.698304D-04	-0.163879D-03	-0.885713D-04	-0.310766D-04

61	0.384058D-03	-0.158760D-03	-0.163740D-03	-0.281265D-03	0.749394D-04
62	-0.765309D-03	0.247205D-03	-0.745215D-03	-0.239985D-03	0.398706D-03
63	-0.341312D-03	-0.365580D-03	0.236383D-03	0.130928D-03	0.327082D-03
64	0.683611D-03	0.251684D-03	0.795903D-03	0.454230D-03	0.430853D-03
65	0.717381D-03	0.540407D-03	0.582295D-03	0.132228D-02	0.764397D-03
66	0.516101D-03	0.879207D-03	0.110395D-02	0.281290D-03	0.670794D-04
67	0.433068D-03	-0.791920D-03	0.196178D-03	0.736183D-04	0.501382D-03
68	-0.437568D-03	-0.684704D-04	0.287711D-03	0.218317D-04	-0.621729D-04
69	-0.186029D-03	0.520037D-03	-0.125248D-03	-0.228335D-03	-0.177733D-03
70	0.649933D-03	0.233962D-03	0.298002D-03	0.324900D-03	0.109100D-02
71	0.510919D+00	0.384870D+00	0.115678D+01	0.153970D+01	0.109097D+01
72	-0.614935D-03	0.892930D-03	0.714477D-04	0.876613D-03	0.183169D-03
73	-0.210832D-03	-0.668747D-03	-0.106376D-02	-0.484653D-03	-0.742880D-03
74	0.110605D-04	-0.699626D-04	-0.160965D-04	-0.382654D-05	0.106235D-04
75	0.211837D-03	-0.283315D-04	0.179839D-03	0.247985D-03	0.354456D-04
76	-0.622733D-03	0.149946D-03	-0.112773D-03	-0.175399D-03	-0.706388D-03
77	0.669188D-04	-0.761450D-04	0.474572D-04	0.337504D-05	0.452496D-04
78	0.170132D-02	0.101649D-02	0.221636D-02	0.205666D-02	0.181129D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.311919D+02				
47	-0.165870D+00	0.607336D+00			
48	-0.666482D-01	0.452329D+00	0.688049D+00		
49	-0.173828D+00	0.305217D+00	0.339385D+00	0.711149D+00	
50	-0.151265D+00	0.394249D+00	0.482436D+00	0.313000D+00	0.673470D+00
51	-0.580288D-01	0.401383D+00	0.483237D+00	0.321886D+00	0.436447D+00
52	-0.958028D-01	0.487841D+00	0.569255D+00	0.357542D+00	0.507661D+00
53	0.350833D-01	0.328553D+00	0.401305D+00	0.253825D+00	0.357194D+00
54	-0.706908D-01	0.224311D+00	0.287324D+00	0.154140D+00	0.252425D+00
55	-0.123951D+00	0.436476D+00	0.522584D+00	0.353139D+00	0.469800D+00
56	-0.171832D+00	0.425517D+00	0.498642D+00	0.314728D+00	0.438402D+00
57	-0.280413D-01	0.351873D+00	0.437084D+00	0.308286D+00	0.402541D+00
58	-0.127348D+02	0.953551D+01	0.110118D+02	0.777800D+01	0.989776D+01
59	-0.822674D-04	-0.112756D-02	-0.191014D-02	-0.162150D-02	-0.328389D-02
60	0.146991D-01	-0.543297D-02	0.277689D-03	0.654720D-03	-0.149720D-02
61	-0.148363D-01	-0.326372D-03	-0.592274D-02	0.640593D-03	-0.278543D-02
62	0.350427D-02	-0.360162D-02	-0.300224D-02	-0.118893D-01	-0.188418D-02
63	0.643054D-05	-0.554067D-03	0.316826D-04	0.884193D-05	-0.603237D-02
64	-0.708784D-02	0.247233D-02	0.401271D-02	-0.322969D-02	-0.112863D-03
65	0.700544D-03	-0.376558D-02	-0.227303D-02	-0.300996D-02	-0.389546D-03
66	0.704362D-02	0.171004D-02	-0.139179D-02	-0.359207D-02	-0.220401D-02



67	0.950568D-02	0.630838D-02	-0.134103D-02	-0.510488D-03	0.619068D-02
68	-0.102948D-01	0.945985D-04	0.352073D-02	0.646642D-04	-0.144358D-04
69	-0.100288D-01	-0.273486D-02	-0.322257D-02	-0.258653D-02	-0.201296D-02
70	0.330545D-01	-0.862634D-03	0.311419D-03	0.560048D-03	-0.104617D-02
71	-0.542064D+02	-0.866678D+00	-0.121991D+01	-0.608351D+01	0.180267D+01
72	0.784744D-01	-0.500978D-01	-0.611964D-01	-0.396826D-01	-0.535100D-01
73	0.796874D-02	-0.386949D-02	-0.501026D-02	0.432762D-03	-0.933699D-03
74	0.480915D-02	-0.869666D-02	-0.101345D-01	-0.676982D-02	-0.922854D-02
75	-0.165821D-02	0.193264D-03	-0.830778D-04	-0.180526D-03	-0.577371D-03
76	-0.226788D-01	-0.248803D-02	-0.484635D-03	-0.266619D-02	-0.189389D-02
77	-0.223939D-02	0.794245D-04	-0.230199D-03	-0.204027D-03	-0.407037D-03
78	0.307379D-01	-0.596375D-03	0.640298D-04	-0.636923D-03	-0.669811D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.671206D+00				
52	0.497517D+00	0.100298D+01			
53	0.364263D+00	0.415296D+00	0.684497D+00		
54	0.279798D+00	0.302265D+00	0.230043D+00	0.546310D+00	
55	0.480963D+00	0.552257D+00	0.383251D+00	0.287189D+00	0.726159D+00
56	0.445951D+00	0.511146D+00	0.367439D+00	0.253198D+00	0.496863D+00
57	0.425784D+00	0.450299D+00	0.323998D+00	0.246840D+00	0.447148D+00
58	0.104171D+02	0.114773D+02	0.948851D+01	0.641965D+01	0.106312D+02
59	-0.238202D-02	-0.155262D-02	-0.221679D-02	-0.183761D-02	-0.276248D-02
60	0.148712D-02	-0.222981D-02	0.175482D-02	0.362705D-02	0.557228D-03
61	0.149577D-02	-0.496639D-03	-0.266449D-02	-0.218423D-02	0.256966D-02
62	-0.612616D-02	-0.465842D-02	-0.157603D-02	0.171811D-02	-0.699776D-02
63	-0.185516D-03	-0.973569D-03	0.895436D-03	-0.136305D-02	-0.215449D-02
64	-0.425798D-02	0.130152D-02	0.120703D-02	0.131426D-02	0.452899D-03
65	-0.497195D-03	-0.117565D-01	-0.329614D-02	-0.161417D-02	0.323234D-02
66	-0.107631D-02	0.314039D-02	-0.119422D-01	-0.460531D-02	-0.115289D-02
67	-0.690325D-03	-0.321722D-02	0.434033D-03	-0.852889D-02	0.182811D-02
68	0.120335D-03	0.197172D-02	0.175387D-02	0.224882D-02	-0.912919D-02
69	0.210867D-02	-0.139503D-02	-0.279117D-02	0.145755D-03	-0.208536D-02
70	-0.465910D-02	0.669551D-03	-0.214882D-02	0.352912D-02	-0.323319D-02
71	-0.108783D+02	-0.755117D+00	0.567958D+01	-0.795532D+01	-0.141808D+01
72	-0.540986D-01	-0.546471D-01	-0.392949D-01	-0.334026D-01	-0.594593D-01
73	-0.235874D-02	-0.628775D-02	-0.348351D-02	-0.326862D-02	-0.164519D-02
74	-0.923151D-02	-0.106950D-01	-0.717473D-02	-0.552369D-02	-0.995548D-02
75	-0.110113D-03	-0.558248D-03	-0.311178D-03	-0.522016D-03	-0.453375D-03
76	-0.221112D-02	-0.417979D-02	0.489364D-03	-0.416671D-02	-0.263216D-02
77	-0.568107D-04	-0.308919D-03	-0.303351D-03	-0.623009D-03	-0.168109D-03

78 -0.473732D-03 0.250578D-03 0.140090D-03 -0.959751D-03 -0.102528D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.680375D+00				
57	0.420153D+00	0.850162D+00			
58	0.105756D+02	0.869287D+01	0.101869D+04		
59	-0.207485D-02	-0.372289D-02	-0.293072D-01	0.271696D-02	
60	-0.232687D-02	-0.122236D-02	0.862630D-01	-0.129166D-03	0.101013D-01
61	-0.152932D-03	0.545344D-02	-0.124117D+00	-0.760449D-04	0.158079D-03
62	-0.545799D-02	-0.484824D-02	-0.432804D+00	0.154769D-04	0.828730D-04
63	-0.231024D-02	-0.695465D-03	0.756016D-01	0.193431D-03	0.347601D-03
64	0.448631D-02	-0.259370D-02	0.409124D-01	0.440775D-03	0.141898D-03
65	0.404921D-02	0.650594D-02	-0.137430D+00	-0.590703D-03	-0.111461D-04
66	-0.875701D-03	-0.474528D-02	-0.215419D+00	-0.227305D-03	-0.373641D-03
67	0.165979D-02	0.112497D-02	-0.489243D-01	-0.200378D-03	-0.328143D-03
68	-0.173784D-02	-0.630204D-02	0.178946D+00	0.841186D-04	-0.383341D-03
69	-0.754141D-02	-0.203032D-02	0.129315D+00	0.946747D-04	0.422372D-03
70	-0.167901D-02	-0.265488D-02	0.653419D-01	0.901562D-04	-0.717149D-03
71	0.768424D+00	-0.449232D+01	-0.274656D+03	-0.458445D+00	0.154826D+01
72	-0.572863D-01	-0.552424D-01	-0.143796D+01	0.114470D-04	-0.555248D-03
73	-0.422306D-02	0.142823D-02	-0.854543D-01	0.605063D-04	0.819146D-04
74	-0.927794D-02	-0.826607D-02	-0.212347D+00	0.568224D-04	0.558302D-05
75	-0.276500D-03	-0.130150D-01	-0.944359D-02	0.486811D-04	0.255162D-04
76	-0.262154D-02	-0.447491D-02	-0.170982D+00	-0.209786D-04	-0.181586D-03
77	-0.299355D-03	-0.129477D-03	-0.156098D-01	0.139174D-05	0.310306D-05
78	-0.121291D-02	0.607686D-03	-0.964925D-01	-0.377331D-04	0.145178D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	0.610194D-02				
62	-0.850558D-03	0.338772D-01			
63	-0.272871D-03	0.738883D-04	0.111877D-01		
64	-0.712238D-03	0.936222D-03	-0.310618D-03	0.975966D-02	
65	0.103041D-02	0.844425D-03	-0.850920D-03	-0.202241D-03	0.342922D-01
66	0.663749D-03	-0.440296D-03	0.304627D-03	-0.972416D-03	0.671479D-03
67	0.136892D-03	0.226456D-04	0.813209D-04	-0.628968D-04	0.118182D-02
68	-0.951642D-03	-0.926168D-04	0.340185D-04	0.113109D-03	-0.100402D-02
69	0.451040D-03	-0.378650D-03	-0.508871D-03	-0.628775D-03	-0.627289D-03
70	-0.509771D-03	0.724458D-03	0.410611D-03	0.320032D-03	0.314958D-04

71	-0.997497D+00	-0.266048D+00	-0.644813D+00	0.906253D+00	0.183629D+01
72	-0.309636D-03	-0.291338D-03	-0.198537D-03	-0.146150D-03	-0.112734D-02
73	0.649564D-03	0.177170D-03	-0.113671D-03	-0.398568D-03	-0.203702D-03
74	0.115371D-05	0.735636D-04	0.770763D-04	-0.799137D-04	0.612461D-04
75	-0.134289D-03	-0.605782D-04	0.105129D-04	-0.407577D-04	-0.253900D-03
76	-0.534680D-04	-0.534312D-03	-0.495018D-04	-0.166977D-04	-0.165395D-03
77	-0.240833D-04	0.515241D-04	0.674349D-04	-0.104896D-04	-0.284215D-05
78	-0.628041D-04	0.301289D-03	-0.478889D-04	0.752561D-04	-0.213261D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.262863D-01				
67	0.183820D-02	0.239140D-01			
68	-0.669494D-03	-0.290056D-03	0.922204D-02		
69	0.147912D-03	-0.162262D-03	-0.797152D-04	0.934584D-02	
70	-0.253931D-03	-0.110800D-02	0.892412D-03	-0.447141D-03	0.175252D-01
71	0.232146D+01	0.114204D+01	-0.146017D+01	-0.106658D+01	-0.745767D+00
72	0.130816D-02	-0.118551D-02	0.101048D-02	0.225131D-03	0.859195D-03
73	-0.354326D-03	0.841233D-03	-0.852195D-03	0.179060D-03	-0.176504D-02
74	0.263061D-04	-0.574220D-04	-0.228037D-04	-0.155458D-04	-0.301386D-04
75	0.942705D-05	-0.301477D-04	0.887265D-04	0.115308D-03	-0.273310D-04
76	0.185647D-03	0.109668D-03	0.179660D-03	-0.107127D-03	-0.943136D-02
77	-0.162937D-04	0.511379D-04	-0.540284D-05	-0.326586D-05	-0.984211D-04
78	0.104934D-03	-0.437843D-04	-0.646531D-04	0.639752D-05	-0.172661D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.963949D+05				
72	-0.344789D-01	0.469093D-01			
73	-0.323266D+00	-0.523253D-03	0.177266D-01		
74	-0.201405D+00	0.111981D-02	0.472852D-04	0.339007D-03	
75	-0.117041D+00	0.375973D-03	0.125419D-04	0.136052D-04	0.843748D-03
76	-0.236736D+00	0.190668D-03	0.957854D-03	0.847229D-04	-0.329862D-04
77	0.746276D-01	-0.157288D-03	0.400930D-04	0.973857D-05	-0.382007D-05
78	0.131867D+00	0.417933D-03	-0.591706D-03	0.212674D-04	-0.275698D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78

76 0.128920D-01  
77 0.859374D-04 0.128064D-03  
78 0.879762D-04 0.732959D-04 0.166152D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.195	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.066	-0.164	0.182	-0.176	-0.227
7	0.015	0.008	0.004	-0.018	-0.027
8	0.025	-0.014	-0.011	-0.018	-0.049
9	0.020	0.033	0.009	0.039	0.005
10	0.001	0.037	0.026	0.037	0.019
11	0.022	0.010	0.001	0.005	0.042
12	-0.020	-0.012	-0.010	-0.035	0.038
13	0.015	0.022	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.007	0.010	-0.039	0.020	0.020
16	-0.040	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.000	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.016	0.027	0.009
23	-0.009	0.013	-0.020	0.009	-0.028
24	0.012	-0.014	0.022	-0.033	0.007
25	-0.043	0.050	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.015	0.002	0.002	0.001
29	-0.042	-0.023	0.028	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.039	-0.027	0.017	-0.015	0.038
35	-0.027	-0.002	0.022	0.001	0.028
36	0.008	0.008	0.018	0.021	0.053

37	0.013	-0.031	0.018	-0.013	0.032
38	-0.003	-0.005	0.022	0.014	0.005
39	-0.012	-0.003	-0.025	0.010	0.032
40	0.033	0.002	0.011	0.019	0.023
41	-0.018	0.030	-0.003	0.016	0.027
42	0.047	-0.033	0.055	-0.006	0.016
43	0.029	0.016	0.016	0.027	0.058
44	-0.017	0.001	0.003	0.016	0.055
45	0.009	0.007	-0.005	0.022	0.047
46	0.000	0.014	0.004	0.035	0.035
47	0.019	0.023	-0.021	0.001	0.026
48	0.031	0.039	-0.017	0.029	0.006
49	0.003	0.030	0.002	0.000	0.036
50	0.018	0.043	-0.039	0.020	-0.003
51	0.012	0.038	-0.047	0.046	0.017
52	0.031	0.019	-0.009	-0.008	-0.002
53	0.004	0.022	-0.035	0.000	-0.012
54	0.047	0.062	-0.045	0.015	0.019
55	0.042	0.015	-0.017	-0.015	0.015
56	0.071	0.062	-0.027	0.029	0.017
57	-0.017	0.028	-0.053	-0.031	0.012
58	-0.002	0.031	-0.039	0.044	0.021
59	-0.018	0.019	0.047	0.006	-0.057
60	0.035	0.043	-0.049	0.018	0.040
61	0.014	-0.005	-0.021	-0.040	-0.027
62	0.007	0.055	0.000	0.006	-0.004
63	-0.006	-0.039	0.033	-0.003	0.003
64	0.083	0.037	0.013	-0.012	0.001
65	0.002	-0.007	0.011	0.009	0.018
66	0.063	-0.016	0.003	0.002	-0.044
67	-0.009	-0.024	-0.028	-0.008	-0.033
68	-0.008	0.019	0.013	-0.004	-0.012
69	-0.014	-0.006	-0.026	-0.009	0.026
70	-0.022	-0.005	0.035	-0.010	-0.024
71	-0.001	0.033	-0.020	0.049	0.028
72	0.005	-0.001	0.005	-0.011	-0.010
73	-0.004	0.039	0.030	0.005	0.007
74	0.001	-0.023	0.009	0.024	-0.010
75	0.032	0.021	0.030	0.044	0.007
76	0.027	0.007	-0.019	0.033	0.018
77	-0.030	-0.044	0.043	-0.004	0.030
78	0.031	0.003	-0.018	-0.030	0.013

## ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.028	1.000			
8	-0.043	-0.115	1.000		
9	-0.047	0.013	0.115	1.000	
10	0.008	-0.039	-0.145	0.013	1.000
11	-0.035	-0.007	-0.139	0.022	-0.172
12	0.034	0.026	0.152	-0.151	0.058
13	0.000	0.034	0.011	-0.022	-0.002
14	0.000	0.010	-0.030	-0.046	0.058
15	-0.028	-0.030	-0.014	-0.025	0.033
16	-0.017	-0.025	0.024	0.010	0.006
17	-0.011	0.013	-0.014	-0.005	0.011
18	-0.013	-0.007	-0.020	-0.042	-0.019
19	0.019	-0.038	0.019	0.007	0.026
20	0.012	0.002	-0.010	0.000	0.037
21	-0.015	0.023	-0.006	0.022	-0.034
22	-0.046	0.024	0.003	-0.010	0.004
23	-0.014	0.008	0.065	0.013	0.034
24	0.022	-0.007	-0.008	-0.031	0.025
25	0.009	-0.026	-0.012	0.005	0.022
26	-0.036	0.008	-0.019	0.001	-0.009
27	0.004	-0.015	-0.010	0.014	0.033
28	0.013	0.051	-0.037	-0.012	-0.018
29	0.036	0.032	-0.053	0.004	0.024
30	-0.006	-0.028	-0.014	-0.010	-0.025
31	0.038	0.004	0.001	0.004	0.011
32	0.011	0.038	0.002	0.037	-0.001
33	-0.006	0.009	-0.015	0.013	-0.010
34	0.022	-0.015	0.014	-0.040	-0.026
35	0.037	-0.021	0.042	0.011	-0.011
36	0.025	-0.012	0.044	0.055	0.000
37	0.047	-0.057	0.039	0.021	-0.007
38	0.025	0.034	0.017	0.037	-0.001
39	0.052	0.000	0.026	0.042	-0.016
40	0.019	-0.025	0.053	0.011	-0.005
41	0.005	-0.040	0.030	0.037	-0.011
42	-0.029	-0.011	0.012	0.013	0.003
43	0.011	-0.022	0.062	0.035	-0.011
44	0.024	-0.017	0.039	0.037	-0.016
45	0.009	-0.038	0.033	0.047	-0.045
46	0.000	-0.014	0.020	0.016	0.031

47	0.006	-0.026	0.049	0.005	-0.003
48	0.007	-0.029	0.040	-0.007	0.044
49	-0.006	0.034	0.038	-0.020	-0.002
50	-0.013	-0.021	0.023	-0.002	0.050
51	0.012	-0.038	0.032	0.006	0.008
52	0.006	0.014	0.032	-0.013	0.007
53	0.001	-0.014	0.022	-0.031	0.007
54	0.001	0.022	-0.005	-0.029	0.050
55	0.005	-0.012	0.018	0.020	0.027
56	-0.002	-0.019	0.045	0.011	-0.010
57	0.015	-0.006	0.016	0.038	0.025
58	0.009	-0.050	0.043	0.003	0.006
59	0.039	0.010	0.021	0.026	0.021
60	-0.027	0.021	0.005	-0.038	0.003
61	0.049	0.013	-0.003	0.034	0.000
62	-0.013	0.027	-0.012	0.016	0.006
63	0.010	0.020	0.021	-0.004	-0.008
64	0.029	0.033	0.022	0.009	-0.015
65	-0.005	-0.014	-0.015	0.027	0.008
66	0.020	-0.001	0.036	-0.024	-0.034
67	0.006	-0.021	0.012	-0.012	-0.026
68	0.045	-0.037	0.013	-0.047	0.005
69	-0.012	-0.014	0.003	0.043	-0.012
70	-0.002	0.026	-0.029	-0.002	0.000
71	-0.030	0.009	0.009	-0.024	-0.017
72	0.016	0.020	-0.064	-0.065	-0.019
73	0.026	-0.006	-0.015	-0.019	0.047
74	-0.032	0.011	-0.032	0.014	-0.016
75	-0.006	-0.052	0.032	-0.060	-0.004
76	0.003	0.010	0.016	0.054	0.012
77	0.007	-0.015	-0.045	0.018	0.019
78	0.014	0.369	0.030	-0.003	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.178	1.000			
13	-0.030	0.005	1.000		
14	-0.007	0.019	0.242	1.000	
15	0.006	-0.003	0.016	0.273	1.000
16	0.002	0.032	-0.129	-0.192	-0.067
17	-0.014	0.015	-0.013	-0.110	-0.261

18	0.012	0.003	0.006	0.014	0.065
19	-0.017	-0.004	0.064	0.244	0.061
20	-0.017	-0.028	-0.006	0.076	0.310
21	-0.006	-0.010	-0.020	-0.032	-0.022
22	0.033	0.031	0.020	-0.004	0.042
23	-0.056	-0.009	0.141	0.191	0.101
24	-0.012	0.014	0.023	0.133	0.231
25	0.016	-0.037	-0.029	-0.021	-0.042
26	-0.013	-0.031	0.027	0.067	0.037
27	-0.044	0.014	0.000	0.063	0.063
28	0.013	0.025	-0.086	-0.228	-0.065
29	-0.007	-0.033	-0.046	-0.121	-0.290
30	-0.002	-0.008	0.034	0.042	0.034
31	0.023	0.011	-0.033	-0.010	-0.065
32	0.059	0.005	-0.037	-0.047	-0.064
33	-0.035	0.008	0.071	0.035	-0.013
34	-0.004	0.001	0.000	-0.010	-0.016
35	0.017	0.056	0.006	0.007	-0.038
36	0.006	0.038	0.017	-0.026	-0.012
37	0.017	0.033	-0.013	-0.007	0.000
38	0.014	0.023	0.006	-0.005	-0.037
39	0.055	0.054	-0.010	-0.013	-0.012
40	0.016	0.033	0.007	-0.021	-0.043
41	0.043	0.051	0.038	0.000	0.011
42	0.061	0.040	-0.016	-0.015	-0.020
43	0.032	0.043	0.009	-0.002	0.004
44	0.014	0.013	0.001	-0.021	-0.026
45	0.005	0.028	-0.015	0.012	0.003
46	-0.041	0.028	0.006	-0.022	0.016
47	0.004	0.024	0.005	-0.041	0.017
48	-0.005	0.056	0.001	-0.045	-0.003
49	-0.012	0.041	-0.010	-0.024	0.017
50	0.001	-0.001	-0.006	-0.016	0.002
51	-0.001	0.023	-0.025	-0.052	-0.006
52	-0.014	0.023	-0.014	-0.021	-0.008
53	0.013	0.024	-0.016	-0.053	-0.017
54	0.005	0.027	-0.016	0.005	0.019
55	-0.002	0.033	0.008	-0.026	-0.007
56	0.019	0.022	0.016	-0.027	-0.003
57	0.006	0.025	-0.012	-0.002	0.012
58	-0.012	0.007	0.015	-0.012	-0.026
59	0.004	0.043	-0.015	-0.005	0.006
60	-0.001	0.053	-0.016	-0.048	-0.030
61	-0.011	-0.033	-0.013	-0.022	-0.067



62	-0.056	-0.037	-0.014	-0.009	-0.034
63	0.001	0.041	0.032	-0.001	0.040
64	0.031	0.003	0.006	0.013	-0.028
65	0.005	0.003	0.022	-0.037	-0.048
66	0.024	0.041	-0.012	0.010	0.040
67	-0.003	0.029	-0.023	-0.007	0.008
68	-0.033	0.014	0.004	-0.007	0.011
69	-0.005	-0.007	-0.028	0.003	0.014
70	0.066	0.017	0.041	0.009	0.000
71	0.012	-0.014	0.038	-0.027	-0.056
72	-0.036	-0.047	-0.008	0.029	-0.030
73	0.000	-0.023	0.000	-0.008	-0.037
74	-0.008	-0.047	-0.014	0.029	0.033
75	-0.020	0.005	0.022	-0.036	-0.018
76	0.004	-0.022	-0.017	-0.006	0.026
77	0.030	-0.024	-0.010	-0.013	0.084
78	-0.029	0.009	0.006	0.024	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.014	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.044	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.009	-0.179	-0.048
29	0.060	0.232	-0.063	-0.053	-0.215
30	-0.092	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.025	0.023
34	0.050	-0.017	-0.034	-0.002	0.004
35	0.023	0.011	0.027	0.011	-0.017
36	0.038	-0.004	0.044	0.004	0.023
37	0.025	0.012	-0.018	0.015	-0.026

38	0.039	0.031	-0.002	0.024	0.010
39	0.043	0.026	0.006	0.031	-0.011
40	0.024	0.025	-0.001	0.019	-0.014
41	0.024	-0.021	-0.011	-0.003	0.014
42	-0.041	0.023	0.001	0.047	0.003
43	0.037	-0.008	-0.004	0.033	-0.012
44	0.052	0.017	-0.005	0.017	-0.001
45	0.024	-0.006	0.023	0.028	-0.007
46	0.018	-0.021	-0.037	-0.054	0.023
47	0.009	0.031	-0.013	-0.036	-0.035
48	-0.012	0.013	-0.009	-0.026	-0.033
49	0.013	0.021	-0.015	-0.022	-0.025
50	-0.027	0.014	-0.009	0.015	-0.021
51	-0.002	0.014	-0.005	-0.016	-0.014
52	-0.004	0.021	-0.007	-0.026	-0.029
53	-0.023	0.022	-0.001	-0.021	-0.028
54	-0.023	-0.030	-0.014	-0.036	0.003
55	-0.031	0.024	-0.016	-0.015	-0.001
56	-0.014	0.028	0.027	-0.043	-0.048
57	-0.001	0.018	0.002	-0.002	-0.031
58	-0.013	0.043	-0.050	-0.037	-0.031
59	0.000	-0.049	-0.010	-0.029	-0.009
60	0.024	-0.012	0.016	-0.006	-0.018
61	-0.005	0.000	0.016	-0.002	-0.009
62	0.000	-0.002	0.005	0.008	-0.002
63	0.042	0.027	-0.027	0.005	0.017
64	0.044	-0.009	0.025	0.025	-0.006
65	0.002	0.036	-0.025	-0.038	-0.058
66	-0.010	-0.007	-0.026	0.038	-0.021
67	-0.017	-0.003	-0.002	-0.011	-0.047
68	0.032	-0.001	-0.041	0.011	-0.009
69	0.022	0.074	-0.010	0.003	-0.030
70	-0.023	0.024	-0.034	-0.005	-0.014
71	-0.054	-0.012	0.003	0.044	-0.016
72	0.000	0.001	0.015	-0.004	-0.003
73	0.025	0.012	0.034	0.045	0.039
74	0.012	-0.035	0.035	0.034	0.036
75	0.014	0.013	-0.008	0.006	0.031
76	0.034	-0.010	0.029	-0.005	0.009
77	0.033	-0.018	0.035	0.055	0.111
78	-0.033	-0.007	0.028	0.007	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.054	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.042	0.028	0.019	0.017	0.021
35	0.065	-0.002	0.030	0.001	-0.002
36	0.059	0.022	0.028	-0.014	0.024
37	0.062	0.003	0.039	-0.016	0.032
38	0.069	0.002	0.028	-0.028	0.015
39	0.085	0.014	0.041	-0.030	0.026
40	0.067	-0.005	0.071	0.001	0.007
41	0.069	0.036	0.037	0.012	0.008
42	0.041	0.025	0.027	-0.023	0.008
43	0.081	-0.019	0.039	-0.019	0.020
44	0.071	0.006	0.035	-0.014	0.019
45	0.078	-0.007	0.039	-0.009	0.034
46	0.068	-0.008	0.025	-0.019	0.019
47	-0.028	0.002	0.022	-0.016	0.014
48	-0.008	-0.009	-0.009	-0.041	-0.009
49	-0.018	0.027	-0.012	0.016	-0.019
50	-0.030	-0.003	0.002	-0.029	0.025
51	-0.012	0.007	0.008	-0.065	0.006
52	-0.011	-0.023	-0.015	-0.049	0.021
53	0.010	-0.012	-0.012	-0.034	-0.007
54	-0.022	0.009	-0.019	-0.010	0.015
55	-0.017	0.003	0.015	0.006	-0.044
56	0.001	-0.021	0.016	-0.016	-0.005
57	-0.020	-0.021	0.012	-0.053	0.005
58	0.034	-0.016	0.002	-0.015	-0.009
59	0.030	-0.002	-0.001	0.044	0.006
60	0.021	-0.002	0.002	0.016	0.014
61	-0.036	-0.025	-0.011	0.023	-0.002
62	-0.029	0.013	0.000	-0.010	0.009

63	-0.003	0.022	-0.002	-0.018	-0.004
64	-0.002	0.005	-0.048	0.044	-0.013
65	0.007	-0.021	0.011	-0.030	-0.043
66	-0.018	-0.038	0.051	-0.043	-0.024
67	-0.033	-0.018	-0.044	-0.001	-0.021
68	-0.001	-0.013	-0.005	0.010	0.018
69	0.032	-0.013	-0.003	-0.040	0.041
70	-0.001	0.030	0.037	0.031	-0.006
71	-0.036	-0.030	0.020	-0.010	-0.039
72	0.048	-0.007	0.023	-0.019	0.023
73	-0.037	0.040	-0.021	0.024	0.060
74	0.027	0.018	0.028	0.047	-0.026
75	0.028	-0.015	0.004	0.042	0.038
76	0.005	0.001	0.012	-0.008	0.007
77	-0.063	0.072	0.015	0.048	0.012
78	0.049	0.008	0.035	-0.016	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.043	-0.072	-0.288	0.256
34	-0.016	0.033	0.017	-0.006	-0.003
35	-0.059	-0.040	0.018	-0.014	0.042
36	-0.042	0.001	0.022	0.001	0.026
37	-0.037	0.002	-0.006	-0.008	-0.002
38	-0.040	0.000	0.002	0.015	-0.002
39	-0.055	-0.019	-0.008	0.007	0.028
40	-0.035	-0.009	-0.041	-0.009	0.027
41	-0.028	0.002	-0.022	0.001	0.008
42	-0.006	0.011	-0.030	0.000	0.018
43	-0.051	-0.017	-0.016	-0.022	0.043
44	-0.053	-0.029	0.007	-0.011	0.005
45	-0.055	0.002	-0.045	0.016	0.022
46	-0.055	-0.014	-0.005	-0.006	0.011
47	-0.016	0.006	-0.017	0.010	0.001
48	-0.017	-0.018	-0.001	0.043	-0.017

49	0.010	0.007	0.008	0.015	-0.025
50	0.003	-0.012	-0.021	0.042	-0.016
51	-0.002	-0.020	0.003	0.023	-0.013
52	-0.005	-0.003	0.019	0.055	-0.037
53	-0.026	-0.011	-0.004	0.032	0.025
54	0.030	0.022	-0.029	-0.015	-0.006
55	-0.016	0.015	-0.020	0.031	-0.024
56	0.005	0.001	-0.012	0.020	-0.042
57	-0.019	-0.005	0.008	0.048	0.005
58	0.007	0.021	0.004	0.022	-0.048
59	0.013	-0.036	0.018	-0.008	-0.046
60	-0.012	0.031	0.013	0.001	0.006
61	0.012	0.042	0.043	-0.053	-0.035
62	-0.021	-0.024	-0.023	0.027	0.019
63	0.014	0.022	-0.018	-0.057	-0.014
64	-0.005	-0.009	-0.003	0.007	0.040
65	-0.005	0.021	0.022	-0.002	0.046
66	-0.012	0.056	-0.015	-0.014	0.005
67	-0.028	0.008	0.021	0.026	-0.018
68	0.002	-0.012	0.010	-0.013	-0.028
69	-0.002	0.013	0.014	-0.037	-0.028
70	0.007	-0.010	-0.027	-0.013	-0.006
71	-0.051	-0.008	-0.059	-0.024	0.009
72	-0.013	-0.002	0.000	-0.025	0.025
73	0.032	0.026	-0.016	0.041	-0.009
74	0.025	0.032	0.016	-0.033	0.052
75	0.034	-0.021	-0.033	-0.066	-0.027
76	0.003	0.019	0.011	0.006	-0.002
77	0.016	-0.018	0.011	-0.040	0.021
78	-0.030	-0.004	0.007	0.020	-0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.006	-0.006	-0.019	1.000	
35	0.018	-0.004	0.010	0.284	1.000
36	0.003	0.000	0.015	0.337	0.679
37	0.032	0.009	0.008	0.250	0.424
38	-0.006	-0.005	0.006	0.319	0.621
39	0.013	0.016	0.032	0.335	0.643

40	0.005	-0.005	0.011	0.286	0.590
41	0.004	0.012	0.007	0.243	0.485
42	-0.029	0.022	-0.001	0.170	0.387
43	0.015	-0.004	0.019	0.332	0.632
44	0.005	0.017	0.020	0.324	0.646
45	0.024	0.001	0.012	0.298	0.598
46	0.033	-0.017	-0.003	0.108	0.303
47	0.012	-0.016	0.009	0.027	0.026
48	0.037	-0.022	-0.017	0.007	0.035
49	0.002	-0.010	-0.037	-0.018	0.008
50	0.035	-0.020	-0.026	0.003	0.007
51	0.038	-0.007	-0.006	0.007	0.024
52	0.032	-0.018	-0.027	0.029	0.024
53	0.048	-0.037	-0.015	0.019	0.061
54	0.012	-0.040	0.000	0.009	-0.050
55	0.040	-0.021	-0.033	0.027	-0.013
56	0.030	-0.026	0.013	0.035	0.019
57	0.060	-0.005	-0.046	0.011	0.012
58	0.039	0.013	-0.063	-0.003	-0.003
59	0.032	-0.040	-0.033	-0.035	-0.022
60	0.038	0.026	0.006	0.004	-0.025
61	0.020	-0.002	0.038	-0.040	-0.021
62	-0.018	0.023	0.026	0.001	-0.013
63	-0.050	0.038	0.010	-0.008	0.013
64	-0.006	-0.003	0.026	-0.004	0.036
65	-0.017	0.016	0.012	0.046	0.016
66	-0.027	-0.008	-0.024	0.002	-0.005
67	0.011	-0.012	0.007	-0.040	0.006
68	-0.010	-0.038	0.009	0.064	-0.005
69	-0.016	0.000	0.011	-0.023	-0.015
70	-0.012	-0.006	-0.022	0.035	0.009
71	-0.024	0.038	-0.034	0.002	0.047
72	-0.041	-0.005	0.015	0.000	-0.001
73	-0.002	0.015	-0.052	-0.037	-0.025
74	-0.048	0.010	0.022	-0.051	-0.018
75	-0.031	0.002	0.005	0.030	0.008
76	-0.027	0.011	0.012	-0.038	0.018
77	-0.024	0.018	0.008	-0.031	0.021
78	0.032	0.011	-0.017	0.137	0.330

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

36

37

38

39

40

36	1.000				
37	0.489	1.000			
38	0.707	0.464	1.000		
39	0.715	0.461	0.662	1.000	
40	0.665	0.435	0.623	0.626	1.000
41	0.570	0.359	0.513	0.522	0.500
42	0.442	0.298	0.421	0.390	0.380
43	0.743	0.474	0.680	0.691	0.638
44	0.728	0.480	0.685	0.679	0.610
45	0.702	0.465	0.633	0.645	0.589
46	0.372	0.268	0.327	0.333	0.302
47	0.032	0.040	-0.006	0.035	0.010
48	0.027	0.008	-0.004	0.002	0.015
49	-0.008	-0.044	-0.008	-0.029	0.010
50	-0.007	0.014	-0.006	-0.027	-0.025
51	0.002	0.008	-0.012	-0.006	-0.001
52	0.004	0.024	-0.021	-0.018	-0.009
53	0.030	0.026	0.011	0.031	0.013
54	-0.025	0.013	-0.028	-0.021	-0.023
55	0.002	0.031	-0.026	-0.034	-0.022
56	0.022	0.032	-0.011	-0.015	0.001
57	-0.001	-0.007	-0.035	-0.030	-0.018
58	-0.018	0.012	-0.024	-0.037	-0.058
59	-0.017	0.009	-0.007	0.016	0.011
60	-0.001	-0.001	-0.003	-0.008	0.019
61	0.000	-0.019	-0.042	-0.022	-0.016
62	-0.028	0.013	-0.014	-0.022	0.017
63	-0.012	0.020	0.028	-0.012	-0.031
64	0.032	0.019	0.031	0.054	0.046
65	0.046	0.026	0.027	0.051	0.022
66	0.002	0.006	0.030	0.014	0.036
67	0.024	0.020	0.023	0.034	-0.006
68	-0.001	-0.066	-0.002	-0.008	0.000
69	-0.026	-0.011	0.002	0.009	0.019
70	0.042	0.001	-0.013	-0.007	0.021
71	0.012	0.024	0.020	0.035	0.006
72	0.011	0.032	0.027	0.036	0.034
73	-0.047	-0.017	-0.065	-0.030	-0.039
74	-0.016	-0.049	0.012	-0.008	-0.001
75	0.026	0.018	0.033	0.042	0.013
76	-0.022	-0.021	0.015	0.013	-0.032
77	0.005	0.005	-0.015	0.017	0.030
78	0.345	0.194	0.341	0.351	0.306

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.294	1.000			
43	0.539	0.414	1.000		
44	0.534	0.394	0.697	1.000	
45	0.510	0.402	0.660	0.654	1.000
46	0.285	0.206	0.344	0.330	0.304
47	0.001	-0.012	0.017	0.005	0.024
48	-0.012	-0.009	0.029	0.009	0.018
49	-0.009	-0.009	-0.010	-0.015	0.000
50	-0.037	0.009	-0.006	-0.019	-0.026
51	-0.027	0.012	0.016	-0.002	0.008
52	-0.015	0.011	0.003	-0.022	0.012
53	-0.029	0.006	0.015	0.016	0.013
54	-0.011	-0.010	-0.015	-0.027	-0.030
55	-0.026	0.010	-0.023	-0.035	-0.004
56	-0.001	0.003	0.020	0.004	0.010
57	-0.025	0.001	-0.006	-0.017	0.003
58	-0.043	-0.025	-0.020	-0.029	-0.018
59	-0.009	0.009	-0.019	-0.040	-0.012
60	-0.001	0.005	-0.010	-0.006	-0.002
61	0.032	-0.015	-0.013	-0.024	0.007
62	-0.027	0.010	-0.025	-0.009	0.015
63	-0.021	-0.025	0.014	0.008	0.021
64	0.044	0.019	0.050	0.030	0.030
65	0.025	0.021	0.020	0.047	0.028
66	0.020	0.040	0.042	0.011	0.003
67	0.018	-0.037	0.008	0.003	0.022
68	-0.029	-0.005	0.019	0.001	-0.004
69	-0.012	0.039	-0.008	-0.016	-0.013
70	0.031	0.013	0.014	0.016	0.057
71	0.011	0.009	0.023	0.033	0.024
72	-0.018	0.030	0.002	0.027	0.006
73	-0.010	-0.037	-0.050	-0.024	-0.038
74	0.004	-0.028	-0.005	-0.001	0.004
75	0.047	-0.007	0.039	0.056	0.008
76	-0.035	0.010	-0.006	-0.010	-0.043
77	0.038	-0.049	0.026	0.002	0.027
78	0.268	0.182	0.339	0.331	0.305



ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	46	47	48	49	50
46	1.000				
47	-0.038	1.000			
48	-0.014	0.700	1.000		
49	-0.037	0.464	0.485	1.000	
50	-0.033	0.616	0.709	0.452	1.000
51	-0.013	0.629	0.711	0.466	0.649
52	-0.017	0.625	0.685	0.423	0.618
53	0.008	0.510	0.585	0.364	0.526
54	-0.017	0.389	0.469	0.247	0.416
55	-0.026	0.657	0.739	0.491	0.672
56	-0.037	0.662	0.729	0.452	0.648
57	-0.005	0.490	0.571	0.396	0.532
58	-0.071	0.383	0.416	0.289	0.378
59	0.000	-0.028	-0.044	-0.037	-0.077
60	0.026	-0.069	0.003	0.008	-0.018
61	-0.034	-0.005	-0.091	0.010	-0.043
62	0.003	-0.025	-0.020	-0.077	-0.012
63	0.000	-0.007	0.000	0.000	-0.069
64	-0.013	0.032	0.049	-0.039	-0.001
65	0.001	-0.026	-0.015	-0.019	-0.003
66	0.008	0.014	-0.010	-0.026	-0.017
67	0.011	0.052	-0.010	-0.004	0.049
68	-0.019	0.001	0.044	0.001	0.000
69	-0.019	-0.036	-0.040	-0.032	-0.025
70	0.045	-0.008	0.003	0.005	-0.010
71	-0.031	-0.004	-0.005	-0.023	0.007
72	0.065	-0.297	-0.341	-0.217	-0.301
73	0.011	-0.037	-0.045	0.004	-0.009
74	0.047	-0.606	-0.664	-0.436	-0.611
75	-0.010	0.009	-0.003	-0.007	-0.024
76	-0.036	-0.028	-0.005	-0.028	-0.020
77	-0.035	0.009	-0.025	-0.021	-0.044
78	0.135	-0.019	0.002	-0.019	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES				
	51	52	53	55
51	1.000			
52	0.606	1.000		
53	0.537	0.501	1.000	

54	0.462	0.408	0.376	1.000	
55	0.689	0.647	0.544	0.456	1.000
56	0.660	0.619	0.538	0.415	0.707
57	0.564	0.488	0.425	0.362	0.569
58	0.398	0.359	0.359	0.272	0.391
59	-0.056	-0.030	-0.051	-0.048	-0.062
60	0.018	-0.022	0.021	0.049	0.007
61	0.023	-0.006	-0.041	-0.038	0.039
62	-0.041	-0.025	-0.010	0.013	-0.045
63	-0.002	-0.009	0.010	-0.017	-0.024
64	-0.053	0.013	0.015	0.018	0.005
65	-0.003	-0.063	-0.022	-0.012	0.020
66	-0.008	0.019	-0.089	-0.038	-0.008
67	-0.005	-0.021	0.003	-0.075	0.014
68	0.002	0.021	0.022	0.032	-0.112
69	0.027	-0.014	-0.035	0.002	-0.025
70	-0.043	0.005	-0.020	0.036	-0.029
71	-0.043	-0.002	0.022	-0.035	-0.005
72	-0.305	-0.252	-0.219	-0.209	-0.322
73	-0.022	-0.047	-0.032	-0.033	-0.015
74	-0.612	-0.580	-0.471	-0.406	-0.635
75	-0.005	-0.019	-0.013	-0.024	-0.018
76	-0.024	-0.037	0.005	-0.050	-0.027
77	-0.006	-0.027	-0.032	-0.074	-0.017
78	-0.014	0.006	0.004	-0.032	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.552	1.000			
58	0.402	0.295	1.000		
59	-0.048	-0.077	-0.018	1.000	
60	-0.028	-0.013	0.027	-0.025	1.000
61	-0.002	0.076	-0.050	-0.019	0.020
62	-0.036	-0.029	-0.074	0.002	0.004
63	-0.026	-0.007	0.022	0.035	0.033
64	0.055	-0.028	0.013	0.086	0.014
65	0.027	0.038	-0.023	-0.061	-0.001
66	-0.007	-0.032	-0.042	-0.027	-0.023
67	0.013	0.008	-0.010	-0.025	-0.021
68	-0.022	-0.071	0.058	0.017	-0.040
69	-0.095	-0.023	0.042	0.019	0.043

70	-0.015	-0.022	0.015	0.013	-0.054
71	0.003	-0.016	-0.028	-0.028	0.050
72	-0.321	-0.277	-0.208	0.001	-0.026
73	-0.038	0.012	-0.020	0.009	0.006
74	-0.611	-0.487	-0.361	0.059	0.003
75	-0.012	-0.486	-0.010	0.032	0.009
76	-0.028	-0.043	-0.047	-0.004	-0.016
77	-0.032	-0.012	-0.043	0.002	0.003
78	-0.036	0.016	-0.074	-0.018	0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.059	1.000			
63	-0.033	0.004	1.000		
64	-0.092	0.051	-0.030	1.000	
65	0.071	0.025	-0.043	-0.011	1.000
66	0.052	-0.015	0.018	-0.061	0.022
67	0.011	0.001	0.005	-0.004	0.041
68	-0.127	-0.005	0.003	0.012	-0.056
69	0.060	-0.021	-0.050	-0.066	-0.035
70	-0.049	0.030	0.029	0.024	0.001
71	-0.041	-0.005	-0.020	0.030	0.032
72	-0.018	-0.007	-0.009	-0.007	-0.028
73	0.062	0.007	-0.008	-0.030	-0.008
74	0.001	0.022	0.040	-0.044	0.018
75	-0.059	-0.011	0.003	-0.014	-0.047
76	-0.006	-0.026	-0.004	-0.001	-0.008
77	-0.027	0.025	0.056	-0.009	-0.001
78	-0.020	0.040	-0.011	0.019	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.073	1.000			
68	-0.043	-0.020	1.000		
69	0.009	-0.011	-0.009	1.000	
70	-0.012	-0.054	0.070	-0.035	1.000
71	0.046	0.024	-0.049	-0.036	-0.018
72	0.037	-0.035	0.049	0.011	0.030

73	-0.016	0.041	-0.067	0.014	-0.100
74	0.009	-0.020	-0.013	-0.009	-0.012
75	0.002	-0.007	0.032	0.041	-0.007
76	0.010	0.006	0.016	-0.010	-0.627
77	-0.009	0.029	-0.005	-0.003	-0.066
78	0.016	-0.007	-0.017	0.002	-0.032

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.001	1.000			
73	-0.008	-0.018	1.000		
74	-0.035	0.281	0.019	1.000	
75	-0.013	0.060	0.003	0.025	1.000
76	-0.007	0.008	0.063	0.041	-0.010
77	0.021	-0.064	0.027	0.047	-0.012
78	0.010	0.047	-0.109	0.028	-0.023

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	0.067	1.000	
78	0.019	0.159	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.039	73
200	1.023	73
300	1.010	43

400	1.014	43
500	1.010	43
600	1.008	43
700	1.003	43
800	1.003	73
900	1.004	73
1000	1.004	61

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters

58

Size (s) Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142

131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		
PRESS15	0.915	0.915	0.914	0.915	



DUTIES15      0.915      0.915      0.915      0.915      0.915

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16  
 Category 1    0.881      4884.000  
 Category 2    0.119      662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL	43.091	0.291	0.000	22.41%	0.000	15.000	35.000

	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 78

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-16.284 72.105

Posterior Predictive P-Value 0.111

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON					
PHY15		0.972	0.071	0.000	0.840	1.105 *
CHOICE15		-0.069	0.025	0.003	-0.120	-0.021 *
BULLY15		0.032	0.048	0.259	-0.061	0.121
DUTIES15		-0.031	0.028	0.135	-0.086	0.023
PRESS15		-0.032	0.026	0.114	-0.081	0.021
KES15		0.225	0.045	0.000	0.132	0.314 *
KES15	WITH					
PHY15		0.052	0.004	0.000	0.044	0.059 *
CHOICE15		-0.089	0.008	0.000	-0.104	-0.073 *
BULLY15		0.058	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.085	0.116 *
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092 *
PHY15	WITH					
CHOICE15		-0.037	0.007	0.000	-0.050	-0.022 *
BULLY15		0.012	0.003	0.001	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.026	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.072	-0.044 *
PRESS15		-0.087	0.015	0.000	-0.117	-0.060 *
DUTIES15		0.173	0.014	0.000	0.145	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.119 *
DUTIES15		-0.078	0.006	0.000	-0.090	-0.066 *
PRESS15	WITH					
DUTIES15		-0.185	0.014	0.000	-0.212	-0.158 *
Means						
PHY15		0.002	0.006	0.374	-0.011	0.015
KES15		0.001	0.007	0.431	-0.014	0.015
CHOICE15		-0.002	0.015	0.457	-0.031	0.027
BULLY15		0.000	0.007	0.471	-0.013	0.014
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.013	0.473	-0.028	0.026
Variances						
PHY15		0.233	0.005	0.000	0.224	0.242 *
KES15		0.290	0.006	0.000	0.278	0.301 *

CHOICE15	1.082	0.022	0.000	1.039	1.127	*
BULLY15	0.239	0.005	0.000	0.229	0.249	*
PRESS15	1.001	0.020	0.000	0.963	1.039	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.563	0.774	0.000	2.261	5.347
EAT		4.183	0.826	0.000	2.862	6.077
ALC		2.844	0.837	0.000	1.425	4.665
PHY		3.773	0.818	0.000	2.464	5.697
PSY		3.900	0.811	0.000	2.643	5.745
SMO		4.357	0.997	0.000	2.721	6.632
TER		3.109	0.823	0.000	1.740	4.953
BEN		2.188	0.737	0.000	0.887	3.764
HPR		4.217	0.847	0.000	2.901	6.256
SPR		3.991	0.816	0.000	2.612	5.824
CUL		3.591	0.778	0.000	2.318	5.420
FEL		79.436	31.785	0.003	24.570	151.192

SING	BY					
FEL		1.000	0.000	0.000	1.000	1.000

PHYCAT16	ON					
PROG		-0.494	0.231	0.013	-0.996	-0.068
SING		-0.010	0.156	0.471	-0.322	0.317

PROG	WITH					
SING		0.000	0.043	0.497	-0.085	0.088

Intercepts						
ACC		0.465	0.073	0.000	0.318	0.601
ACT		0.111	0.142	0.209	-0.163	0.396
EAT		0.309	0.151	0.023	0.017	0.639
ALC		0.046	0.154	0.381	-0.245	0.354
PHY		0.203	0.151	0.082	-0.093	0.519
PSY		0.092	0.152	0.263	-0.206	0.412
SMO		0.318	0.189	0.046	-0.053	0.705
TER		0.184	0.155	0.109	-0.117	0.498
BEN		0.039	0.138	0.385	-0.228	0.320
HPR		0.219	0.161	0.089	-0.099	0.544
SPR		0.210	0.151	0.085	-0.074	0.514

CUL	0.021	0.144	0.441	-0.267	0.310	
FEL	42.541	5.580	0.000	31.393	53.675	*
Thresholds						
PHYCAT16\$1	1.332	0.042	0.000	1.252	1.420	*
Variances						
PROG	0.056	0.018	0.000	0.031	0.104	*
SING	0.313	0.790	0.000	0.096	1.948	*
Residual Variances						
PHYCAT16	0.010	0.011	0.000	0.000	0.040	*
ACC	0.251	0.052	0.000	0.174	0.375	*
ACT	0.447	0.101	0.000	0.304	0.698	*
EAT	0.300	0.079	0.000	0.182	0.497	*
ALC	0.877	0.184	0.000	0.611	1.322	*
PHY	0.468	0.106	0.000	0.310	0.725	*
PSY	0.423	0.099	0.000	0.272	0.651	*
SMO	0.811	0.185	0.000	0.535	1.247	*
TER	0.775	0.162	0.000	0.533	1.156	*
BEN	0.770	0.155	0.000	0.530	1.143	*
HPR	0.376	0.095	0.000	0.236	0.611	*
SPR	0.418	0.097	0.000	0.275	0.656	*
CUL	0.446	0.099	0.000	0.294	0.689	*
FEL	1462.359	310.523	0.000	1026.817	2240.306	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
PHYCAT16	ON						
PHY15		0.415	0.025	0.000	0.367	0.462	*
CHOICE15		-0.063	0.023	0.003	-0.111	-0.019	*
BULLY15		0.014	0.021	0.259	-0.027	0.053	
DUTIES15		-0.025	0.023	0.135	-0.071	0.019	
PRESS15		-0.028	0.023	0.114	-0.072	0.018	
KES15		0.108	0.021	0.000	0.063	0.150	*

KES15	WITH					
PHY15		0.198	0.014	0.000	0.171	0.225 *
CHOICE15		-0.158	0.014	0.000	-0.185	-0.131 *
BULLY15		0.219	0.013	0.000	0.193	0.245 *
PRESS15		0.186	0.013	0.000	0.159	0.212 *
DUTIES15		-0.212	0.013	0.000	-0.237	-0.185 *
PHY15	WITH					
CHOICE15		-0.073	0.014	0.000	-0.100	-0.044 *
BULLY15		0.050	0.014	0.001	0.022	0.078 *
PRESS15		0.081	0.014	0.000	0.054	0.107 *
DUTIES15		-0.080	0.014	0.000	-0.108	-0.052 *
CHOICE15	WITH					
BULLY15		-0.115	0.014	0.000	-0.141	-0.087 *
PRESS15		-0.084	0.014	0.000	-0.112	-0.058 *
DUTIES15		0.179	0.014	0.000	0.152	0.205 *
BULLY15	WITH					
PRESS15		0.214	0.013	0.000	0.189	0.239 *
DUTIES15		-0.171	0.013	0.000	-0.197	-0.147 *
PRESS15	WITH					
DUTIES15		-0.200	0.014	0.000	-0.226	-0.173 *
Means						
PHY15		0.005	0.013	0.374	-0.022	0.031
KES15		0.002	0.014	0.431	-0.026	0.028
CHOICE15		-0.002	0.014	0.457	-0.030	0.026
BULLY15		0.001	0.014	0.471	-0.026	0.029
PRESS15		0.001	0.014	0.481	-0.027	0.027
DUTIES15		-0.001	0.014	0.473	-0.030	0.028
Variances						
PHY15		1.000	0.000	0.000	1.000	1.000
KES15		1.000	0.000	0.000	1.000	1.000
CHOICE15		1.000	0.000	0.000	1.000	1.000
BULLY15		1.000	0.000	0.000	1.000	1.000
PRESS15		1.000	0.000	0.000	1.000	1.000
DUTIES15		1.000	0.000	0.000	1.000	1.000
Between Level						
PROG	BY					

ACC	0.423	0.061	0.000	0.326	0.555	*
ACT	0.784	0.063	0.000	0.629	0.879	*
EAT	0.877	0.042	0.000	0.774	0.936	*
ALC	0.589	0.108	0.000	0.342	0.753	*
PHY	0.797	0.060	0.000	0.654	0.885	*
PSY	0.819	0.055	0.000	0.688	0.901	*
SMO	0.758	0.071	0.000	0.573	0.862	*
TER	0.645	0.096	0.000	0.415	0.792	*
BEN	0.511	0.121	0.000	0.235	0.702	*
HPR	0.856	0.048	0.000	0.734	0.922	*
SPR	0.825	0.055	0.000	0.694	0.904	*
CUL	0.785	0.065	0.000	0.623	0.879	*
FEL	0.438	0.132	0.003	0.153	0.666	*
SING BY						
FEL	0.013	0.008	0.000	0.007	0.034	*
PHYCAT16 ON						
PROG	-0.681	0.223	0.013	-0.988	-0.103	*
SING	-0.032	0.434	0.471	-0.790	0.775	
PROG WITH						
SING	-0.002	0.221	0.497	-0.413	0.451	
Intercepts						
ACC	0.840	0.150	0.000	0.540	1.118	*
ACT	0.104	0.129	0.209	-0.136	0.370	
EAT	0.274	0.133	0.023	0.014	0.552	*
ALC	0.040	0.130	0.381	-0.206	0.302	
PHY	0.182	0.133	0.082	-0.085	0.467	
PSY	0.080	0.132	0.263	-0.183	0.355	
SMO	0.228	0.136	0.046	-0.038	0.511	
TER	0.160	0.133	0.109	-0.100	0.414	
BEN	0.037	0.132	0.385	-0.205	0.309	
HPR	0.186	0.136	0.089	-0.073	0.458	
SPR	0.184	0.131	0.085	-0.066	0.455	
CUL	0.019	0.131	0.441	-0.236	0.283	
FEL	0.984	0.168	0.000	0.668	1.345	*
Thresholds						
PHYCAT16\$1	7.433	2.428	0.000	4.780	13.934	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	

SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.326	0.234	0.000	0.011	0.868	*
ACC	0.821	0.054	0.000	0.692	0.894	*
ACT	0.385	0.095	0.000	0.227	0.604	*
EAT	0.231	0.072	0.000	0.124	0.400	*
ALC	0.653	0.120	0.000	0.433	0.883	*
PHY	0.365	0.093	0.000	0.216	0.572	*
PSY	0.330	0.088	0.000	0.189	0.526	*
SMO	0.426	0.103	0.000	0.256	0.672	*
TER	0.584	0.117	0.000	0.373	0.828	*
BEN	0.739	0.116	0.000	0.508	0.945	*
HPR	0.268	0.080	0.000	0.150	0.462	*
SPR	0.319	0.088	0.000	0.183	0.518	*
CUL	0.384	0.097	0.000	0.227	0.612	*
FEL	0.807	0.109	0.000	0.558	0.976	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.216	0.021	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.674	0.234	0.000	0.132	0.989
ACC	0.179	0.054	0.000	0.106	0.308
ACT	0.615	0.095	0.000	0.396	0.773
EAT	0.769	0.072	0.000	0.600	0.876
ALC	0.347	0.120	0.000	0.117	0.567
PHY	0.635	0.093	0.000	0.428	0.784
PSY	0.670	0.088	0.000	0.474	0.811
SMO	0.574	0.103	0.000	0.328	0.744
TER	0.416	0.117	0.000	0.172	0.627
BEN	0.261	0.116	0.000	0.055	0.492
HPR	0.732	0.080	0.000	0.538	0.850



SPR	0.681	0.088	0.000	0.482	0.817
CUL	0.616	0.097	0.000	0.388	0.773
FEL	0.193	0.109	0.000	0.024	0.442

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16
_____
0

NU	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	0	0	0	0

NU	PRESS15	DUTIES15
	_____	_____
	0	0

LAMBDA	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
	_____	_____

PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	THETA	
	PRESS15	DUTIES15
	_____	_____
PRESS15	0	
DUTIES15	0	0

	ALPHA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
	0	1	2	3	4

	ALPHA	
	PRESS15	DUTIES15
	_____	_____
	5	6

	BETA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____	_____	_____	_____	_____
PHYCAT16	0	7	8	9	10

PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU

PHYCAT16

78

NU

PHYCAT16	ACC	ACT	EAT	ALC
0	34	35	36	37

NU

PHY	PSY	SMO	TER	BEN
38	39	40	41	42

NU

HPR	SPR	CUL	FEL
43	44	45	46

LAMBDA

PROG	SING	PHYCAT16
------	------	----------

PHYCAT16	0	0	0
ACC	0	0	0
ACT	47	0	0
EAT	48	0	0
ALC	49	0	0
PHY	50	0	0
PSY	51	0	0
SMO	52	0	0
TER	53	0	0
BEN	54	0	0
HPR	55	0	0
SPR	56	0	0
CUL	57	0	0
FEL	58	0	0

THETA

PHYCAT16	ACC	ACT	EAT	ALC
----------	-----	-----	-----	-----

PHYCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA				
	PHY	PSY	SMO	TER	BEN
	_____	_____	_____	_____	_____
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA			
	HPR	SPR	CUL	FEL
	_____	_____	_____	_____
HPR	68			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

	ALPHA		
	PROG	SING	PHYCAT16
	_____	_____	_____
	0	0	0

	BETA		
	PROG	SING	PHYCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0
PHYCAT16	72	73	0

	PSI		
	PROG	SING	PHYCAT16
PROG	<u>74</u>	<u></u>	<u></u>
SING	75	76	
PHYCAT16	0	0	77

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<u>0.000</u>

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	
PRESS15	DUTIES15
<u>0.000</u>	<u>0.000</u>

	LAMBDA				
	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000

CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
<hr/> 0.000	<hr/> 0.000

BETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
PHYCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<hr/> 1.000	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0.000	0.116			
KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
<hr/>	<hr/>



PRESS15	0.501	
DUTIES15	0.000	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
<hr/> 1.110

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<hr/> 0.000	<hr/> 0.485	<hr/> 0.224	<hr/> 0.466	<hr/> 0.673

NU	PHY	PSY	SMO	TER	BEN
	<hr/> 0.342	<hr/> 0.251	<hr/> 0.347	<hr/> 0.385	<hr/> 0.212

NU	HPR	SPR	CUL	FEL
	<hr/> 0.409	<hr/> 0.433	<hr/> -0.067	<hr/> 45.726

LAMBDA			
	PROG	SING	PHYCAT16
PHYCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 1.000
ACC	1.000	0.000	0.000
ACT	1.000	0.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	0.000	0.000
PSY	1.000	0.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000
BEN	1.000	0.000	0.000

HPR	1.000	0.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	0.000	0.000
FEL	1.000	1.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
HPR	0.426			
SPR	0.000	0.361		

CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

ALPHA			
PROG		SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000

	BETA		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

	PSI		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	1.000		
SING	0.000	1.000	
PHYCAT16	0.000	0.000	1.000

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity

2624

Parameter 60~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 61~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 62~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 63~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 64~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 72~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 73~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 74~IW(1.000,3)	infinity	infinity	infinity
Parameter 75~IW(0.000,3)	infinity	infinity	infinity
Parameter 76~IW(1.000,3)	infinity	infinity	infinity
Parameter 77~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 78~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.411639D-04				
2	0.918802D-05	0.541419D-04			
3	-0.848672D-05	-0.192370D-04	0.220905D-03		
4	0.153404D-05	0.975094D-05	-0.126587D-04	0.461400D-04	
5	0.710176D-05	0.190770D-04	-0.193827D-04	0.186901D-04	0.190739D-03
6	-0.570757D-05	-0.160842D-04	0.360994D-04	-0.159713D-04	-0.417580D-04
7	0.354213D-05	0.351280D-05	-0.181341D-05	-0.888618D-05	-0.287643D-04
8	0.694183D-05	-0.429279D-05	-0.757293D-05	-0.538881D-05	-0.314371D-04
9	0.343295D-05	0.634733D-05	0.395153D-05	0.657495D-05	0.178874D-05
10	0.135806D-06	0.127517D-04	0.186869D-04	0.120278D-04	0.126244D-04
11	0.366334D-05	0.168705D-05	0.260577D-06	0.853534D-06	0.152464D-04
12	-0.338293D-05	-0.218259D-05	-0.409013D-05	-0.676303D-05	0.148726D-04
13	0.416098D-06	0.715310D-06	-0.151792D-05	0.146786D-06	0.149973D-05
14	-0.695125D-06	0.125704D-05	-0.127896D-05	-0.412981D-07	-0.809011D-06
15	-0.258980D-06	0.419154D-06	-0.340427D-05	0.805219D-06	0.158176D-05
16	-0.180651D-05	-0.141594D-05	-0.443923D-05	0.606076D-06	-0.388203D-05
17	-0.217258D-06	-0.140508D-05	0.647919D-05	-0.161595D-05	-0.537792D-06

18	0.223590D-05	0.968492D-05	-0.986936D-05	0.179802D-05	0.439143D-05
19	-0.657235D-06	-0.499198D-06	0.990866D-06	0.439630D-06	-0.290705D-05
20	0.158384D-07	-0.689825D-06	-0.131508D-05	-0.161770D-06	-0.121119D-05
21	-0.181026D-06	0.874380D-06	0.267114D-05	0.151738D-05	0.191103D-05
22	-0.796712D-06	-0.183859D-06	-0.112583D-05	0.889251D-06	0.575258D-06
23	-0.390849D-06	0.629166D-06	-0.192705D-05	0.397076D-06	-0.254536D-05
24	0.557575D-06	-0.776001D-06	0.248220D-05	-0.168052D-05	0.719780D-06
25	-0.400825D-05	0.531887D-05	-0.203203D-05	-0.875834D-06	0.928895D-05
26	-0.208510D-06	-0.981732D-06	0.203911D-05	0.979383D-06	-0.291535D-05
27	-0.151129D-05	-0.900093D-05	0.115085D-04	0.205963D-05	-0.111001D-04
28	-0.117641D-05	-0.717525D-06	0.195438D-06	0.799700D-07	0.722030D-07
29	-0.193758D-05	-0.120738D-05	0.300591D-05	-0.171068D-05	-0.488441D-05
30	0.130190D-05	0.281430D-05	-0.332729D-05	0.124213D-05	-0.648558D-05
31	0.167455D-06	0.798315D-06	-0.102805D-06	-0.249335D-06	0.674211D-08
32	-0.143945D-05	0.383457D-05	0.169733D-06	-0.123509D-05	0.413957D-05
33	0.259526D-05	-0.322040D-05	-0.215098D-04	0.399416D-05	0.754120D-06
34	-0.189661D-04	-0.113303D-04	0.170038D-04	-0.721960D-05	0.346794D-04
35	-0.266155D-04	0.761047D-05	0.466425D-04	0.575778D-06	0.451548D-04
36	0.567802D-05	0.193799D-04	0.394956D-04	0.215762D-04	0.101939D-03
37	0.114423D-04	-0.282081D-04	0.407336D-04	-0.138085D-04	0.600119D-04
38	-0.523924D-05	0.407683D-05	0.496205D-04	0.142469D-04	-0.180127D-07
39	-0.144312D-04	0.686364D-05	-0.568701D-04	0.986480D-05	0.576084D-04
40	0.379992D-04	0.130820D-04	0.299751D-04	0.236091D-04	0.486439D-04
41	-0.203486D-04	0.424009D-04	-0.832124D-05	0.172066D-04	0.491559D-04
42	0.397940D-04	-0.275720D-04	0.111403D-03	-0.581702D-05	0.231224D-04
43	0.278590D-04	0.305303D-04	0.369860D-04	0.290479D-04	0.117778D-03
44	-0.193743D-04	0.121097D-04	0.540580D-05	0.161081D-04	0.105660D-03
45	0.356619D-05	0.854997D-05	-0.270125D-05	0.280462D-05	0.945707D-04
46	-0.221130D-04	0.769673D-03	0.318478D-03	0.134574D-02	0.245281D-02
47	0.110808D-03	0.151832D-03	-0.282250D-03	0.329421D-04	0.279161D-03
48	0.186108D-03	0.266515D-03	-0.248466D-03	0.198986D-03	0.759157D-04
49	0.311371D-04	0.195283D-03	0.119135D-04	0.253702D-04	0.396122D-03
50	0.123157D-03	0.283836D-03	-0.505542D-03	0.143964D-03	-0.270649D-04
51	0.784781D-04	0.255437D-03	-0.637896D-03	0.286956D-03	0.190311D-03
52	0.208966D-03	0.159373D-03	-0.192748D-03	-0.303018D-04	-0.145349D-04
53	0.252895D-04	0.145711D-03	-0.470008D-03	0.155055D-04	-0.135831D-03
54	0.232701D-03	0.354250D-03	-0.529428D-03	0.868304D-04	0.185631D-03
55	0.253252D-03	0.131192D-03	-0.270877D-03	-0.463463D-04	0.177091D-03
56	0.389604D-03	0.396140D-03	-0.362766D-03	0.178180D-03	0.191531D-03
57	0.142975D-03	0.324664D-03	-0.518059D-03	0.118614D-04	0.177986D-03
58	-0.686557D-03	0.714017D-02	-0.197593D-01	0.104139D-01	0.894607D-02
59	-0.598773D-05	0.694694D-05	0.366147D-04	0.179420D-05	-0.400970D-04
60	0.229011D-04	0.331564D-04	-0.711153D-04	0.127716D-04	0.570764D-04
61	0.793797D-05	-0.235487D-05	-0.277149D-04	-0.216661D-04	-0.296035D-04

62	0.834577D-05	0.753242D-04	-0.468120D-05	0.765517D-05	-0.848975D-05
63	-0.433749D-05	-0.297447D-04	0.556219D-04	-0.185378D-05	0.418767D-05
64	0.512146D-04	0.262619D-04	0.179494D-04	-0.941923D-05	0.432493D-05
65	0.319445D-05	-0.721516D-05	0.305062D-04	0.124979D-04	0.465705D-04
66	0.670833D-04	-0.182109D-04	0.571689D-05	0.423990D-05	-0.958556D-04
67	-0.845181D-05	-0.279171D-04	-0.628694D-04	-0.800110D-05	-0.712463D-04
68	-0.603285D-05	0.120804D-04	0.177484D-04	-0.221541D-05	-0.169422D-04
69	-0.788952D-05	-0.407338D-05	-0.382012D-04	-0.470579D-05	0.337906D-04
70	-0.214419D-04	-0.193060D-04	0.746036D-04	-0.132718D-04	-0.137382D-04
71	-0.321011D-05	0.743443D-01	-0.901380D-01	0.100647D+00	0.119319D+00
72	-0.231936D-04	-0.114382D-04	0.749404D-04	0.107446D-05	-0.903356D-04
73	0.260003D-04	0.515312D-04	-0.588515D-04	0.997130D-06	0.414031D-05
74	-0.148092D-06	-0.425080D-05	0.296451D-05	0.959868D-06	-0.180823D-05
75	0.106499D-04	0.494555D-05	0.779136D-05	-0.251656D-05	0.466784D-06
76	0.792445D-04	0.191133D-04	-0.491367D-03	0.359114D-03	0.721421D-04
77	-0.276717D-05	-0.343469D-05	0.482789D-05	0.463440D-06	0.372819D-05
78	0.277348D-05	0.437734D-05	-0.144130D-04	-0.104044D-04	0.657198D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.177394D-03				
7	0.243347D-04	0.498317D-02			
8	-0.255965D-04	-0.365181D-03	0.204239D-02		
9	-0.157695D-04	0.305250D-04	0.133270D-03	0.633382D-03	
10	0.507922D-05	-0.128965D-03	-0.312148D-03	0.156095D-04	0.227956D-02
11	-0.123988D-04	0.117712D-05	-0.163070D-03	0.141992D-04	-0.214554D-03
12	0.129825D-04	0.644320D-04	0.194584D-03	-0.107384D-03	0.785029D-04
13	0.223832D-07	0.863833D-05	0.192053D-05	-0.255848D-05	-0.534952D-06
14	-0.816766D-08	0.145601D-05	-0.535200D-05	-0.427662D-05	0.104001D-04
15	-0.219010D-05	-0.993860D-05	-0.376711D-05	-0.386021D-05	0.903950D-05
16	-0.159372D-05	-0.948112D-05	0.821520D-05	0.166013D-05	0.219184D-05
17	-0.118610D-05	0.689863D-05	-0.492476D-05	-0.112163D-05	0.434847D-05
18	-0.382218D-05	-0.141338D-04	-0.201506D-04	-0.228322D-04	-0.200076D-04
19	0.881779D-06	-0.889007D-05	0.293726D-05	0.745659D-06	0.408729D-05
20	0.612014D-06	0.218629D-05	-0.140157D-05	0.962130D-07	0.649998D-05
21	-0.147529D-05	0.767587D-05	-0.274857D-05	0.395209D-05	-0.111687D-04
22	-0.294564D-05	0.854508D-05	0.948817D-06	-0.102888D-05	0.964054D-06
23	-0.126200D-05	0.158255D-05	0.192902D-04	0.231119D-05	0.102635D-04
24	0.219468D-05	-0.368505D-05	-0.266844D-05	-0.609708D-05	0.915082D-05
25	0.179780D-05	-0.291094D-04	-0.866160D-05	0.225719D-05	0.156126D-04
26	-0.338475D-05	0.472001D-05	-0.594642D-05	0.457793D-06	-0.329246D-05
27	0.957221D-06	-0.226094D-04	-0.947418D-05	0.731544D-05	0.311356D-04

28	0.111513D-05	0.246780D-04	-0.102854D-04	-0.196734D-05	-0.557690D-05
29	0.336256D-05	0.142266D-04	-0.170667D-04	0.750109D-06	0.812891D-05
30	-0.109260D-05	-0.291875D-04	-0.941309D-05	-0.347602D-05	-0.165711D-04
31	0.320468D-05	0.372609D-05	0.536349D-06	0.294773D-06	0.356416D-05
32	0.199838D-05	0.369692D-04	0.110012D-05	0.131033D-04	-0.401954D-06
33	-0.129570D-05	0.712773D-05	-0.134592D-04	0.545118D-05	-0.854937D-05
34	0.192222D-04	-0.900546D-04	0.554617D-04	-0.725058D-04	-0.683415D-04
35	0.629536D-04	-0.239072D-03	0.320542D-03	0.217334D-04	-0.949367D-05
36	0.446414D-04	-0.157456D-03	0.354019D-03	0.196901D-03	0.834980D-04
37	0.940003D-04	-0.632463D-03	0.315552D-03	0.767667D-04	0.291706D-05
38	0.452825D-04	0.368392D-03	0.171023D-03	0.130689D-03	0.611817D-04
39	0.984479D-04	-0.256077D-04	0.233281D-03	0.150802D-03	-0.443015D-04
40	0.413363D-04	-0.355083D-03	0.506995D-03	0.354539D-04	0.343948D-04
41	0.605091D-05	-0.455410D-03	0.251890D-03	0.133690D-03	-0.220182D-04
42	-0.555940D-04	-0.108796D-03	0.102092D-03	0.302201D-04	0.614412D-04
43	0.167274D-04	-0.267753D-03	0.508295D-03	0.130714D-03	-0.247626D-05
44	0.409866D-04	-0.214056D-03	0.317196D-03	0.129825D-03	-0.411755D-04
45	0.268406D-04	-0.543504D-03	0.379019D-03	0.133415D-03	-0.882995D-04
46	-0.156188D-03	-0.343026D-02	0.639579D-02	0.206313D-02	0.959548D-02
47	0.634959D-04	-0.142663D-02	0.140852D-02	-0.759594D-04	0.123326D-03
48	0.566427D-04	-0.169890D-02	0.113342D-02	-0.301143D-03	0.204679D-02
49	-0.779475D-04	0.195153D-02	0.132940D-02	-0.497788D-03	0.218694D-03
50	-0.166301D-03	-0.100099D-02	0.617544D-03	-0.167022D-03	0.218803D-02
51	0.108715D-03	-0.211484D-02	0.963933D-03	0.125945D-04	0.637810D-03
52	0.323102D-04	0.986335D-03	0.101074D-02	-0.487361D-03	0.735596D-03
53	-0.602310D-05	-0.807398D-03	0.467384D-03	-0.800271D-03	0.550112D-03
54	-0.153782D-04	0.109372D-02	-0.286456D-03	-0.671981D-03	0.194810D-02
55	0.361014D-04	-0.965919D-03	0.464599D-03	0.303095D-03	0.136627D-02
56	-0.303029D-04	-0.130174D-02	0.142602D-02	0.583168D-04	-0.105112D-03
57	0.184440D-03	-0.180244D-02	0.830438D-03	-0.269210D-04	0.175458D-02
58	0.347446D-02	-0.107400D+00	0.520157D-01	0.564084D-04	0.187657D-01
59	0.272441D-04	0.480627D-04	0.504120D-04	0.326132D-04	0.503675D-04
60	-0.354314D-04	0.140383D-03	0.249048D-04	-0.949256D-04	0.442485D-05
61	0.504703D-04	0.438525D-04	0.201566D-05	0.676392D-04	-0.986956D-05
62	-0.379764D-04	0.338079D-03	-0.104530D-03	0.702710D-04	0.539202D-04
63	0.161498D-04	0.206980D-03	0.112299D-03	-0.102684D-04	-0.306796D-04
64	0.346550D-04	0.232116D-03	0.905714D-04	0.151674D-04	-0.674546D-04
65	-0.921166D-05	-0.211013D-03	-0.115709D-03	0.135876D-03	0.537409D-04
66	0.401089D-04	0.416702D-04	0.284408D-03	-0.101680D-03	-0.275161D-03
67	0.135600D-04	-0.180978D-03	0.952605D-04	-0.421816D-04	-0.193219D-03
68	0.581520D-04	-0.223711D-03	0.425627D-04	-0.114317D-03	0.368546D-04
69	-0.138747D-04	-0.781549D-04	0.148885D-04	0.105450D-03	-0.662085D-04
70	-0.195333D-04	0.396575D-03	-0.184660D-04	0.507065D-04	-0.225970D-04
71	-0.119567D+00	0.515117D-01	0.137357D+00	-0.191429D+00	-0.230402D+00



72	0.109378D-03	0.332993D-03	-0.448703D-03	-0.357181D-03	-0.301692D-03
73	0.134034D-03	0.770451D-04	0.832342D-04	0.413667D-04	0.223714D-03
74	-0.566618D-05	0.144537D-04	-0.222577D-04	0.213229D-05	-0.139935D-04
75	-0.899080D-05	-0.167871D-03	0.621955D-04	-0.630399D-04	-0.780809D-04
76	0.121960D-03	0.529920D-03	-0.133461D-03	0.141727D-03	-0.938397D-03
77	0.836808D-06	0.467087D-05	-0.206178D-04	0.839267D-05	0.868714D-05
78	0.456014D-05	0.102565D-02	0.738994D-04	-0.265785D-05	0.200925D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.679944D-03				
12	0.130909D-03	0.788477D-03			
13	-0.343539D-05	0.746616D-06	0.207407D-04		
14	-0.677526D-06	0.199150D-05	0.413272D-05	0.140559D-04	
15	0.821445D-06	-0.769012D-06	0.416150D-06	0.591544D-05	0.333615D-04
16	0.109620D-06	0.648386D-05	-0.418855D-05	-0.513988D-05	-0.279087D-05
17	-0.293678D-05	0.334942D-05	-0.487462D-06	-0.330171D-05	-0.121354D-04
18	0.672984D-05	0.138265D-05	0.574882D-06	0.116655D-05	0.822338D-05
19	-0.150150D-05	-0.355082D-06	0.994651D-06	0.313047D-05	0.119886D-05
20	-0.184246D-05	-0.293115D-05	-0.103580D-06	0.107897D-05	0.679747D-05
21	-0.939264D-06	-0.214577D-05	-0.673418D-06	-0.859607D-06	-0.903367D-06
22	0.422682D-05	0.442172D-05	0.432276D-06	-0.787585D-07	0.117168D-05
23	-0.973585D-05	-0.163940D-05	0.427326D-05	0.475571D-05	0.385862D-05
24	-0.236576D-05	0.295649D-05	0.801625D-06	0.379845D-05	0.101258D-04
25	0.619523D-05	-0.147155D-04	-0.191558D-05	-0.113771D-05	-0.355394D-05
26	-0.240661D-05	-0.600924D-05	0.873206D-06	0.175149D-05	0.148230D-05
27	-0.230791D-04	0.826752D-05	0.135405D-07	0.477498D-05	0.727929D-05
28	0.220661D-05	0.447033D-05	-0.248038D-05	-0.544357D-05	-0.238900D-05
29	-0.118831D-05	-0.653721D-05	-0.147336D-05	-0.322152D-05	-0.118633D-04
30	-0.792651D-06	-0.301964D-05	0.220921D-05	0.221040D-05	0.281708D-05
31	0.352800D-05	0.183002D-05	-0.941061D-06	-0.232792D-06	-0.236224D-05
32	0.214090D-04	0.210869D-05	-0.232480D-05	-0.242838D-05	-0.507787D-05
33	-0.147488D-04	0.363621D-05	0.551627D-05	0.221951D-05	-0.127983D-05
34	-0.136061D-05	0.648380D-05	0.555800D-06	-0.333915D-05	-0.505056D-05
35	0.816938D-04	0.245747D-03	0.419440D-05	0.340565D-06	-0.252183D-04
36	0.419326D-04	0.183342D-03	0.127555D-04	-0.184594D-04	-0.406631D-05
37	0.803966D-04	0.165405D-03	-0.866716D-05	-0.631134D-05	0.410761D-05
38	0.704552D-04	0.120193D-03	0.515170D-05	-0.606278D-05	-0.268127D-04
39	0.232581D-03	0.257449D-03	-0.598442D-05	-0.106494D-04	-0.461633D-05
40	0.964045D-04	0.199811D-03	0.682218D-05	-0.186974D-04	-0.392813D-04
41	0.189643D-03	0.243953D-03	0.277069D-04	-0.272443D-05	0.152903D-04
42	0.227747D-03	0.167062D-03	-0.924579D-05	-0.996039D-05	-0.125419D-04

43	0.156457D-03	0.220498D-03	0.714037D-05	-0.461516D-05	0.999608D-05
44	0.730778D-04	0.799758D-04	0.170353D-05	-0.154979D-04	-0.162796D-04
45	0.102594D-03	0.228751D-03	-0.161385D-04	-0.205791D-05	-0.761307D-05
46	-0.582523D-02	0.483629D-02	0.187005D-03	-0.532256D-03	0.666226D-03
47	0.167400D-03	0.433695D-03	0.192482D-04	-0.787758D-04	0.869976D-04
48	0.454161D-04	0.120404D-02	-0.146521D-05	-0.100431D-03	-0.180480D-05
49	-0.231685D-03	0.953746D-03	-0.259076D-04	-0.458625D-04	0.871648D-04
50	0.112493D-03	-0.104157D-03	-0.180669D-04	-0.833507D-05	0.216527D-04
51	0.702560D-05	0.473059D-03	-0.906011D-04	-0.118746D-03	-0.168793D-04
52	-0.252802D-03	0.566282D-03	-0.657662D-04	-0.357046D-04	-0.271510D-04
53	0.388207D-03	0.480921D-03	-0.608932D-04	-0.145286D-03	-0.744705D-04
54	0.155498D-03	0.545529D-03	-0.573670D-04	0.276238D-04	0.912118D-04
55	0.279146D-04	0.717238D-03	0.418744D-04	-0.419253D-04	-0.172202D-04
56	0.502944D-03	0.481433D-03	0.587025D-04	-0.421800D-04	-0.439238D-05
57	-0.370798D-03	0.449634D-03	0.122172D-03	-0.767450D-05	0.131082D-04
58	-0.740473D-02	0.457315D-02	0.240509D-02	-0.116506D-03	-0.408005D-02
59	0.491466D-05	0.647620D-04	-0.352337D-05	-0.126282D-05	0.167726D-05
60	0.896735D-06	0.146090D-03	-0.610536D-05	-0.182098D-04	-0.175583D-04
61	-0.286580D-04	-0.689122D-04	-0.300110D-05	-0.602806D-05	-0.290571D-04
62	-0.281220D-03	-0.187742D-03	-0.127867D-04	-0.617874D-05	-0.349592D-04
63	0.101585D-04	0.131120D-03	0.154365D-04	-0.655209D-06	0.252209D-04
64	0.856551D-04	0.238786D-06	0.135224D-05	0.405429D-05	-0.161706D-04
65	0.248091D-04	0.137198D-04	0.213942D-04	-0.253869D-04	-0.503072D-04
66	0.983508D-04	0.186170D-03	-0.772062D-05	0.664878D-05	0.375418D-04
67	-0.208491D-04	0.132575D-03	-0.158333D-04	-0.400245D-05	0.615404D-05
68	-0.709207D-04	0.354460D-04	-0.231017D-06	-0.308885D-05	0.465421D-05
69	-0.220596D-04	-0.196432D-04	-0.120248D-04	0.194648D-06	0.866429D-05
70	0.200647D-03	0.465821D-04	0.370108D-05	0.551824D-05	0.283283D-04
71	0.114298D+00	-0.118110D+00	0.547979D-01	-0.300687D-01	-0.101625D+00
72	-0.277405D-03	-0.202116D-03	-0.891269D-05	0.117810D-04	-0.227369D-04
73	-0.134949D-03	-0.450296D-04	0.761284D-05	0.859053D-05	-0.257929D-04
74	-0.853580D-05	-0.232122D-04	-0.248851D-06	0.112152D-05	0.326188D-05
75	-0.237239D-04	0.425619D-05	-0.160160D-05	-0.712485D-05	-0.644359D-05
76	0.987687D-03	0.327221D-03	0.153332D-03	-0.372284D-04	0.436346D-04
77	0.104618D-04	-0.276338D-05	0.208729D-06	-0.239262D-06	0.571043D-05
78	-0.132498D-04	0.189390D-04	0.150769D-06	0.267094D-05	-0.395905D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.512147D-04				
17	0.119433D-04	0.645770D-04			
18	-0.105603D-04	-0.450292D-04	0.479877D-03		

19	-0.222373D-05	-0.749243D-06	-0.596334D-06	0.117580D-04	
20	-0.135282D-06	-0.488369D-05	0.146738D-05	0.282975D-05	0.143817D-04
21	0.669125D-06	0.158897D-04	-0.263596D-04	-0.177016D-05	-0.473829D-05
22	-0.471175D-06	-0.304953D-06	0.812553D-06	0.677891D-06	0.518925D-05
23	-0.324723D-05	-0.208968D-05	0.134112D-05	0.554536D-05	0.754541D-06
24	-0.157217D-05	-0.936821D-05	0.798733D-05	0.119553D-05	0.599557D-05
25	0.773690D-05	0.276366D-04	-0.364454D-04	0.191597D-05	-0.990744D-06
26	-0.258797D-06	-0.254264D-05	-0.272985D-05	0.206878D-05	0.469002D-05
27	-0.638294D-05	-0.127506D-04	-0.224158D-06	0.193730D-05	0.591486D-05
28	0.983150D-05	0.178343D-05	-0.118581D-05	-0.389902D-05	-0.114733D-05
29	0.307047D-05	0.132423D-04	-0.985043D-05	-0.128170D-05	-0.577068D-05
30	-0.925607D-05	-0.239727D-04	0.780827D-04	0.469527D-06	0.152664D-05
31	0.537604D-06	0.410594D-05	-0.100137D-04	-0.205439D-05	-0.590784D-05
32	0.536763D-05	0.938902D-05	-0.867958D-05	0.459970D-06	-0.381578D-05
33	-0.317204D-05	-0.663670D-05	0.280060D-04	0.148269D-05	0.145064D-05
34	0.249980D-04	-0.110699D-04	-0.550324D-04	0.104556D-05	0.145710D-05
35	0.211313D-04	0.793035D-05	0.837067D-04	0.967048D-05	-0.787531D-05
36	0.388619D-04	-0.982675D-05	0.149009D-03	0.708506D-05	0.151738D-04
37	0.267312D-04	0.115277D-04	-0.636497D-04	0.114813D-04	-0.145026D-04
38	0.398744D-04	0.330703D-04	-0.859539D-05	0.170601D-04	0.695308D-05
39	0.445864D-04	0.272285D-04	0.197607D-04	0.212117D-04	-0.553030D-05
40	0.288818D-04	0.318895D-04	-0.343460D-05	0.176046D-04	-0.862437D-05
41	0.240867D-04	-0.303148D-04	-0.380433D-04	0.236754D-05	0.899151D-05
42	-0.413463D-04	0.226371D-04	0.168736D-05	0.248067D-04	0.222691D-05
43	0.400663D-04	-0.149210D-04	-0.134734D-04	0.233270D-04	-0.562858D-05
44	0.542976D-04	0.153276D-04	-0.154283D-04	0.139042D-04	0.104223D-05
45	0.220914D-04	-0.341433D-04	0.115233D-04	0.230435D-04	0.797078D-06
46	0.674087D-03	-0.103872D-02	-0.450820D-02	-0.930517D-03	0.513082D-03
47	0.675664D-04	0.137993D-03	-0.184038D-03	-0.781112D-04	-0.821440D-04
48	-0.464044D-04	0.131398D-04	-0.128816D-03	-0.624115D-04	-0.874553D-04
49	0.100559D-03	0.875993D-04	-0.207025D-03	-0.636621D-04	-0.636907D-04
50	-0.137090D-03	0.110450D-04	-0.130388D-03	0.458566D-04	-0.592070D-04
51	0.648346D-05	0.680169D-05	-0.852938D-06	-0.429755D-04	-0.236102D-04
52	-0.152162D-05	0.893302D-04	-0.962188D-04	-0.760280D-04	-0.812909D-04
53	-0.100053D-03	0.748739D-04	0.411641D-04	-0.621788D-04	-0.792223D-04
54	-0.103609D-03	-0.222118D-03	-0.177181D-03	-0.868698D-04	0.131883D-04
55	-0.152931D-03	0.837433D-04	-0.217794D-03	-0.398612D-04	0.127390D-04
56	-0.568827D-04	0.111279D-03	0.535846D-03	-0.114785D-03	-0.135148D-03
57	-0.729037D-04	0.274732D-04	0.429436D-04	-0.121537D-04	-0.926365D-04
58	-0.283729D-02	0.891784D-02	-0.347457D-01	-0.378538D-02	-0.367680D-02
59	-0.448073D-06	-0.204827D-04	-0.126556D-04	-0.549144D-05	-0.197522D-05
60	0.180784D-04	-0.110197D-04	0.360158D-04	-0.278973D-05	-0.653851D-05
61	-0.418947D-05	-0.159799D-05	0.295934D-04	-0.153180D-05	-0.309804D-05
62	-0.160570D-06	-0.206658D-05	0.168561D-04	0.514945D-05	-0.156068D-05

63	0.307700D-04	0.228996D-04	-0.648347D-04	0.234524D-05	0.833435D-05
64	0.322983D-04	-0.468412D-05	0.463850D-04	0.913501D-05	-0.196637D-05
65	0.157319D-05	0.540854D-04	-0.100576D-03	-0.254944D-04	-0.417657D-04
66	-0.142199D-04	-0.926817D-05	-0.942863D-04	0.216794D-04	-0.130462D-04
67	-0.200876D-04	-0.414303D-05	-0.754996D-05	-0.627929D-05	-0.267652D-04
68	0.228249D-04	0.228451D-05	-0.940503D-04	0.430672D-05	-0.301754D-05
69	0.150300D-04	0.560911D-04	-0.242115D-04	0.730506D-07	-0.107534D-04
70	0.197997D-04	-0.198131D-04	-0.107559D-04	0.529729D-06	0.557233D-05
71	-0.121842D+00	-0.287158D-01	0.273844D-01	0.467196D-01	-0.170205D-01
72	0.830000D-05	0.261612D-04	0.668239D-04	0.815574D-05	-0.135342D-04
73	-0.210953D-04	0.787814D-05	0.834532D-04	0.148061D-04	0.196388D-04
74	-0.749085D-08	-0.360806D-05	0.764679D-05	0.170951D-05	0.242069D-05
75	0.699334D-05	-0.448504D-05	-0.109829D-04	-0.325782D-06	0.121563D-05
76	0.408218D-04	0.167256D-03	-0.165767D-03	-0.388197D-04	-0.475082D-04
77	0.194855D-06	-0.105423D-05	0.380026D-05	0.221530D-05	0.507401D-05
78	-0.691904D-05	-0.380955D-05	0.220888D-04	0.313467D-05	0.495594D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.517682D-04				
22	-0.573009D-05	0.235143D-04			
23	-0.758511D-06	0.483537D-06	0.442031D-04		
24	-0.339435D-05	0.226819D-05	0.914724D-05	0.576210D-04	
25	0.200904D-04	-0.103404D-05	-0.541115D-05	-0.198160D-04	0.212680D-03
26	-0.283734D-05	0.951250D-05	0.446273D-05	0.121835D-04	-0.934557D-05
27	-0.670137D-05	0.632334D-05	0.181711D-04	0.368918D-04	-0.327622D-04
28	-0.675514D-06	-0.464830D-06	-0.100972D-04	-0.342534D-05	0.461178D-05
29	0.154851D-05	-0.422372D-06	-0.579851D-05	-0.120331D-04	0.969909D-05
30	-0.183268D-04	0.351571D-05	0.511926D-05	0.529527D-05	-0.398987D-04
31	0.612206D-05	-0.755326D-05	-0.150502D-05	-0.593044D-05	0.853526D-05
32	0.177155D-05	0.630767D-06	-0.109751D-04	-0.255367D-04	0.458085D-04
33	-0.392153D-05	0.346265D-06	0.855117D-05	0.594374D-05	-0.209146D-04
34	0.201805D-04	0.110055D-04	0.953365D-05	0.825069D-05	0.219602D-04
35	0.602131D-04	0.202241D-05	0.284589D-04	-0.262336D-06	-0.456395D-05
36	0.572389D-04	0.211453D-04	0.286608D-04	-0.179155D-04	0.515844D-04
37	0.649502D-04	0.493559D-05	0.413377D-04	-0.206752D-04	0.711392D-04
38	0.689130D-04	0.564044D-05	0.284156D-04	-0.354452D-04	0.310434D-04
39	0.873649D-04	0.142721D-04	0.416229D-04	-0.371874D-04	0.579124D-04
40	0.838350D-04	-0.681752D-06	0.893770D-04	-0.101738D-05	0.177176D-04
41	0.717960D-04	0.300031D-04	0.378098D-04	0.120949D-04	0.184963D-04
42	0.371735D-04	0.194807D-04	0.238108D-04	-0.249769D-04	0.161803D-04
43	0.870847D-04	-0.105396D-04	0.423014D-04	-0.259464D-04	0.450625D-04

44	0.708187D-04	0.858011D-05	0.357593D-04	-0.182673D-04	0.431972D-04
45	0.561722D-04	0.701290D-06	0.572977D-04	-0.535168D-05	0.890583D-04
46	0.266699D-02	-0.155577D-03	0.903932D-03	-0.829917D-03	0.153883D-02
47	-0.143855D-03	0.295051D-04	0.116005D-03	-0.716364D-04	0.192820D-03
48	-0.406057D-04	-0.286474D-05	-0.499329D-04	-0.232010D-03	-0.693017D-04
49	-0.941635D-04	0.125489D-03	-0.530452D-04	0.105711D-03	-0.220112D-03
50	-0.160684D-03	0.139218D-04	0.273143D-04	-0.165222D-03	0.332774D-03
51	-0.506977D-04	0.526174D-04	0.569098D-04	-0.387911D-03	0.111163D-03
52	-0.817383D-04	-0.836259D-04	-0.105942D-03	-0.339408D-03	0.323178D-03
53	0.543805D-04	-0.272643D-04	-0.733175D-04	-0.171851D-03	-0.702967D-04
54	-0.118619D-03	0.409559D-04	-0.939825D-04	-0.464968D-04	0.187527D-03
55	-0.781529D-04	0.390409D-04	0.101210D-03	0.495551D-04	-0.486467D-03
56	0.293031D-04	-0.578619D-04	0.868151D-04	-0.796757D-04	-0.220651D-04
57	-0.100857D-03	-0.899959D-04	0.108385D-03	-0.264105D-03	0.265191D-03
58	0.768185D-02	-0.231892D-02	0.937888D-03	-0.268019D-02	-0.425121D-02
59	0.109536D-04	-0.542259D-06	-0.278950D-06	0.177318D-04	0.481394D-05
60	0.151600D-04	-0.146907D-06	0.326058D-05	0.115850D-04	0.204548D-04
61	-0.169775D-04	-0.100613D-04	-0.335161D-05	0.120041D-04	-0.380623D-05
62	-0.393191D-04	0.111635D-04	0.167279D-06	-0.155086D-04	0.227559D-04
63	-0.325861D-05	0.121186D-04	-0.265236D-05	-0.111772D-04	-0.663909D-05
64	-0.386208D-05	0.182774D-05	-0.345823D-04	0.327262D-04	-0.204905D-04
65	0.136349D-04	-0.188030D-04	0.186585D-04	-0.410720D-04	-0.117662D-03
66	-0.169124D-04	-0.299665D-04	0.572550D-04	-0.550120D-04	-0.585674D-04
67	-0.354375D-04	-0.126146D-04	-0.446421D-04	0.775787D-06	-0.499219D-04
68	-0.327438D-05	-0.595230D-05	-0.578280D-05	0.830158D-05	0.190434D-04
69	0.234863D-04	-0.542257D-05	0.182628D-06	-0.297888D-04	0.585450D-04
70	-0.127736D-04	0.983103D-05	0.646181D-05	0.160061D-04	0.230547D-05
71	-0.833543D-01	-0.428903D-01	0.392973D-01	-0.251583D-01	-0.175681D+00
72	0.581297D-04	-0.273312D-04	0.498951D-04	-0.107776D-04	0.293558D-04
73	-0.524219D-04	0.563438D-04	-0.243937D-04	-0.119158D-04	0.665641D-04
74	0.346900D-05	0.867419D-06	0.345282D-05	0.698797D-05	-0.781509D-05
75	0.265289D-05	-0.849289D-05	0.174361D-05	0.153321D-04	0.132275D-04
76	0.173674D-03	-0.417880D-04	0.275955D-03	-0.135367D-04	0.125655D-03
77	-0.431560D-05	0.385242D-05	0.800837D-06	0.289776D-05	0.424045D-05
78	0.103876D-04	0.253785D-05	0.851231D-05	-0.524752D-05	0.300356D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	26	27	28	29	30
26	0.490717D-04				
27	0.467545D-04	0.403277D-03			
28	-0.126159D-05	-0.420812D-05	0.404953D-04		
29	-0.285117D-05	-0.116755D-04	0.749897D-05	0.502486D-04	

30	0.184100D-05	0.416432D-05	-0.506047D-05	-0.191680D-04	0.199960D-03
31	-0.919341D-05	-0.926402D-05	0.126631D-05	0.120033D-04	-0.145973D-04
32	-0.191448D-04	-0.808050D-04	0.737517D-05	0.227329D-04	-0.244999D-04
33	0.438426D-05	0.148023D-04	-0.776569D-05	-0.345766D-04	0.613338D-04
34	-0.733509D-05	0.542318D-04	0.802988D-05	-0.793178D-05	-0.157864D-05
35	-0.556581D-04	-0.952424D-04	0.185041D-04	-0.294798D-04	0.881183D-04
36	-0.406256D-04	0.265150D-04	0.245917D-04	-0.179210D-04	0.612417D-04
37	-0.384599D-04	0.245632D-04	-0.401942D-05	-0.212649D-04	-0.288484D-05
38	-0.395364D-04	0.199184D-04	0.417176D-05	0.258293D-06	-0.628138D-06
39	-0.555290D-04	-0.395115D-04	-0.589146D-05	-0.950628D-05	0.656218D-04
40	-0.432824D-04	-0.128735D-04	-0.459869D-04	-0.309658D-04	0.768064D-04
41	-0.280449D-04	0.218082D-04	-0.193065D-04	-0.129492D-04	0.220066D-04
42	-0.440827D-05	0.435135D-04	-0.249969D-04	-0.895676D-05	0.382746D-04
43	-0.545252D-04	-0.314100D-04	-0.142940D-04	-0.436600D-04	0.102503D-03
44	-0.535260D-04	-0.694001D-04	0.924137D-05	-0.287512D-04	0.152074D-04
45	-0.425494D-04	0.483447D-04	-0.207379D-04	0.158915D-05	0.648702D-04
46	-0.210795D-02	-0.119318D-02	-0.127613D-03	-0.559534D-03	0.895366D-03
47	-0.876681D-04	0.924706D-04	-0.131248D-03	0.641434D-04	-0.256745D-04
48	-0.974532D-04	-0.322029D-03	-0.625132D-04	0.263236D-03	-0.220146D-03
49	0.495706D-04	0.887191D-04	0.171061D-04	0.941244D-04	-0.317508D-03
50	0.114861D-04	-0.224130D-03	-0.161205D-03	0.252378D-03	-0.183655D-03
51	-0.127387D-04	-0.328744D-03	-0.426189D-04	0.145527D-03	-0.172082D-03
52	-0.400489D-04	-0.841154D-04	0.659401D-04	0.401912D-03	-0.555600D-03
53	-0.146245D-03	-0.211669D-03	-0.461389D-04	0.193382D-03	0.290677D-03
54	0.155001D-03	0.295324D-03	-0.153627D-03	-0.678917D-04	-0.684795D-04
55	-0.105404D-03	0.205201D-03	-0.164001D-03	0.204802D-03	-0.330014D-03
56	0.269051D-04	-0.115632D-04	-0.125662D-03	0.128986D-03	-0.515695D-03
57	-0.508980D-04	-0.323575D-03	-0.230732D-03	0.109007D-03	-0.119596D-03
58	0.159677D-02	0.128665D-01	-0.350543D-03	0.481081D-02	-0.219518D-01
59	0.488112D-05	-0.374964D-04	0.630761D-05	-0.245235D-05	-0.343191D-04
60	-0.801460D-05	0.611572D-04	0.852480D-05	0.132914D-05	0.975149D-05
61	0.648022D-05	0.702252D-04	0.216067D-04	-0.292003D-04	-0.418250D-04
62	-0.280005D-04	-0.885018D-04	-0.266101D-04	0.351168D-04	0.526802D-04
63	0.111055D-04	0.476214D-04	-0.128459D-04	-0.434591D-04	-0.213420D-04
64	-0.439428D-05	-0.194851D-04	-0.137657D-05	0.375474D-05	0.574743D-04
65	-0.642785D-05	0.826990D-04	0.250835D-04	-0.446253D-05	0.119449D-03
66	-0.130509D-04	0.184696D-03	-0.165016D-04	-0.160520D-04	0.944259D-05
67	-0.297267D-04	0.260289D-04	0.196621D-04	0.288786D-04	-0.420798D-04
68	0.158342D-05	-0.247423D-04	0.662640D-05	-0.871579D-05	-0.347907D-04
69	-0.961719D-06	0.242999D-04	0.859371D-05	-0.260163D-04	-0.365595D-04
70	-0.668932D-05	-0.220893D-04	-0.634450D-06	-0.115909D-04	-0.260613D-04
71	-0.110446D+00	-0.526612D-01	-0.115787D+00	-0.511356D-01	0.365321D-01
72	-0.553851D-04	-0.373273D-04	0.779186D-05	-0.460776D-04	0.105895D-03
73	0.211655D-04	-0.396857D-04	0.446637D-04	0.540739D-04	0.207971D-04

74	0.348454D-05	0.140947D-04	0.258079D-05	-0.491531D-05	0.121802D-04
75	0.159730D-06	0.381783D-05	-0.555196D-05	-0.193149D-04	0.321119D-06
76	-0.739024D-04	0.425680D-05	-0.363949D-04	0.526864D-05	0.254875D-03
77	0.355019D-06	-0.519267D-05	0.581640D-06	-0.102832D-05	-0.102531D-05
78	-0.708862D-05	0.258167D-05	0.380959D-05	0.354645D-06	-0.202305D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.391574D-04				
32	0.200804D-04	0.190397D-03			
33	-0.284338D-04	-0.658476D-04	0.287579D-03		
34	-0.341099D-05	-0.778263D-05	-0.200341D-04	0.526336D-02	
35	0.124810D-04	-0.186772D-04	0.321257D-04	0.291664D-02	0.200147D-01
36	-0.163401D-05	-0.136873D-04	0.479047D-04	0.369128D-02	0.144093D-01
37	0.288317D-04	0.905291D-05	0.285230D-04	0.272995D-02	0.891810D-02
38	-0.883916D-05	-0.222882D-04	0.250700D-04	0.348544D-02	0.131768D-01
39	0.906481D-05	0.211601D-04	0.923462D-04	0.368809D-02	0.137050D-01
40	0.173288D-05	-0.284305D-04	0.447259D-04	0.390978D-02	0.156485D-01
41	0.432532D-06	0.166039D-04	0.271898D-04	0.268716D-02	0.104211D-01
42	-0.269897D-04	0.355218D-04	0.449855D-05	0.174378D-02	0.761668D-02
43	0.103943D-04	-0.210953D-04	0.622802D-04	0.388902D-02	0.143083D-01
44	0.100042D-05	0.235490D-04	0.603003D-04	0.354300D-02	0.136937D-01
45	0.176588D-04	-0.272894D-05	0.495446D-04	0.317118D-02	0.120149D-01
46	0.107857D-02	-0.151680D-02	-0.103732D-03	0.436614D-01	0.236726D+00
47	0.543085D-04	-0.459709D-04	0.989342D-04	0.176065D-02	0.184048D-02
48	0.173471D-03	-0.112941D-03	-0.275339D-03	0.480824D-03	0.250775D-02
49	0.473945D-05	-0.362321D-04	-0.530459D-03	-0.117049D-02	-0.600124D-03
50	0.170512D-03	-0.913657D-04	-0.375326D-03	0.485347D-03	-0.300832D-03
51	0.173785D-03	0.375614D-04	-0.109210D-03	0.577757D-03	0.185483D-02
52	0.183175D-03	-0.101419D-03	-0.496556D-03	0.228938D-02	0.188243D-02
53	0.245439D-03	-0.303227D-03	-0.250162D-03	0.131896D-02	0.585408D-02
54	0.603942D-04	-0.308345D-03	-0.438632D-04	0.717593D-03	-0.522915D-02
55	0.186482D-03	-0.968320D-04	-0.475545D-03	0.197308D-02	-0.252609D-02
56	0.140330D-03	-0.178490D-03	0.131954D-03	0.229154D-02	0.134196D-02
57	0.279331D-03	0.242763D-03	-0.342471D-03	0.108634D-02	-0.527321D-03
58	0.790094D-02	0.863157D-02	-0.336902D-01	-0.675586D-02	-0.158517D-01
59	0.110185D-04	-0.285977D-04	-0.297811D-04	-0.126317D-03	-0.146278D-03
60	0.226098D-04	0.375121D-04	0.838706D-05	0.570212D-05	-0.463940D-03
61	0.696720D-05	-0.427336D-05	0.554316D-04	-0.225094D-03	-0.248399D-03
62	-0.212814D-04	0.577832D-04	0.800858D-04	0.517359D-05	-0.417712D-03
63	-0.352344D-04	0.536781D-04	0.136081D-04	-0.382726D-04	0.319237D-03
64	-0.269428D-05	-0.237382D-05	0.412658D-04	-0.564975D-04	0.440543D-03

65	-0.231137D-04	0.385252D-04	0.409160D-04	0.635793D-03	0.439662D-03
66	-0.285335D-04	-0.182401D-04	-0.619717D-04	0.577164D-04	-0.345703D-04
67	0.922441D-05	-0.279902D-04	0.188832D-04	-0.444292D-03	0.171818D-03
68	-0.352048D-05	-0.484681D-04	0.605619D-05	0.407336D-03	-0.124461D-03
69	-0.121565D-04	0.234536D-05	0.218156D-04	-0.129211D-03	-0.105914D-03
70	-0.111707D-04	0.245143D-04	-0.605680D-04	-0.881719D-04	0.282381D-04
71	-0.443766D-01	0.160309D+00	-0.176614D+00	0.121598D-02	0.189719D+01
72	-0.239544D-04	-0.344732D-04	0.174624D-04	-0.596375D-04	0.415128D-03
73	0.298645D-05	0.949172D-04	-0.124002D-04	-0.162920D-03	-0.689214D-04
74	-0.544589D-05	-0.146732D-05	0.764259D-05	-0.870093D-04	-0.636927D-04
75	-0.371326D-05	-0.439845D-05	0.808955D-05	0.183094D-03	0.787901D-04
76	0.234598D-04	-0.266827D-03	0.167088D-03	-0.163710D-03	0.527304D-02
77	-0.785828D-06	0.588908D-06	0.183309D-05	-0.129112D-04	0.274490D-04
78	0.823836D-05	-0.295924D-07	-0.227253D-04	0.406854D-03	0.193357D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	0.229342D-01				
37	0.110163D-01	0.235994D-01			
38	0.160496D-01	0.104724D-01	0.227791D-01		
39	0.163243D-01	0.104264D-01	0.150811D-01	0.229788D-01	
40	0.188649D-01	0.123043D-01	0.176503D-01	0.178223D-01	0.355787D-01
41	0.131372D-01	0.819212D-02	0.118155D-01	0.120537D-01	0.143978D-01
42	0.930664D-02	0.623743D-02	0.883504D-02	0.822906D-02	0.997500D-02
43	0.180281D-01	0.113985D-01	0.164811D-01	0.168265D-01	0.193209D-01
44	0.165255D-01	0.108078D-01	0.155434D-01	0.154705D-01	0.172890D-01
45	0.152690D-01	0.990161D-02	0.137535D-01	0.141785D-01	0.159911D-01
46	0.312259D+00	0.224170D+00	0.272727D+00	0.279580D+00	0.315749D+00
47	0.326390D-02	0.522913D-02	-0.115214D-02	0.361582D-02	0.516069D-03
48	0.199260D-02	0.959763D-03	-0.141286D-02	-0.102746D-02	0.431669D-03
49	-0.244033D-02	-0.647255D-02	-0.211815D-02	-0.516886D-02	-0.469624D-03
50	-0.160626D-02	0.171912D-02	-0.133828D-02	-0.406134D-02	-0.519845D-02
51	-0.422992D-03	0.101662D-02	-0.172428D-02	-0.166439D-02	-0.162438D-02
52	-0.210019D-03	0.359336D-02	-0.394497D-02	-0.386909D-02	-0.419834D-02
53	0.303453D-02	0.350359D-02	0.531724D-03	0.295525D-02	0.594083D-03
54	-0.281516D-02	0.212872D-02	-0.285200D-02	-0.226398D-02	-0.323973D-02
55	-0.483008D-03	0.423818D-02	-0.349312D-02	-0.530067D-02	-0.490500D-02
56	0.216704D-02	0.440480D-02	-0.176398D-02	-0.269866D-02	-0.110242D-02
57	-0.412506D-03	0.769558D-03	-0.322512D-02	-0.421901D-02	-0.294702D-02
58	-0.837402D-01	0.700573D-01	-0.105888D+00	-0.192183D+00	-0.357246D+00
59	-0.117382D-03	0.770213D-04	-0.510717D-04	0.136081D-03	0.121552D-03
60	-0.140088D-03	-0.134877D-03	-0.142212D-03	-0.253126D-03	0.220587D-03



61	-0.317091D-04	-0.283768D-03	-0.480291D-03	-0.305031D-03	-0.288101D-03
62	-0.859302D-03	0.336340D-03	-0.471715D-03	-0.694262D-03	0.551452D-03
63	-0.102457D-03	0.404228D-03	0.558120D-03	-0.930745D-04	-0.490234D-03
64	0.396850D-03	0.275344D-03	0.407339D-03	0.769276D-03	0.792571D-03
65	0.129904D-02	0.700871D-03	0.817366D-03	0.145190D-02	0.815607D-03
66	0.153509D-03	0.204917D-03	0.851796D-03	0.472818D-03	0.122068D-02
67	0.571341D-03	0.486090D-03	0.564001D-03	0.808377D-03	-0.113947D-03
68	-0.553054D-04	-0.969597D-03	-0.117753D-03	-0.117029D-03	-0.631738D-04
69	-0.264777D-03	-0.110123D-03	0.158892D-03	0.238370D-03	0.442029D-03
70	-0.257018D-03	-0.807134D-04	-0.572063D-03	-0.230120D-03	-0.774627D-03
71	0.383148D+00	0.101154D+01	0.708917D+00	0.145570D+01	0.104719D+00
72	0.455293D-03	0.622427D-03	0.601111D-03	0.110985D-02	0.166084D-02
73	-0.281210D-03	0.409923D-03	-0.713903D-03	-0.253756D-04	-0.422276D-03
74	-0.726469D-04	-0.164157D-03	0.203606D-05	-0.578871D-04	-0.353580D-04
75	0.228582D-03	0.164041D-03	0.283425D-03	0.384598D-03	0.696447D-04
76	0.330771D-02	-0.680503D-03	0.909199D-02	0.419590D-02	0.339074D-02
77	0.257487D-04	0.130931D-04	-0.817717D-05	0.337889D-04	0.629124D-04
78	0.218410D-02	0.121744D-02	0.215707D-02	0.224484D-02	0.242235D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.238974D-01				
42	0.626734D-02	0.189362D-01			
43	0.132517D-01	0.929341D-02	0.258049D-01		
44	0.122770D-01	0.828166D-02	0.168754D-01	0.228494D-01	
45	0.109553D-01	0.819790D-02	0.154282D-01	0.142168D-01	0.208475D-01
46	0.242675D+00	0.158966D+00	0.306954D+00	0.275128D+00	0.236833D+00
47	-0.189589D-03	-0.170167D-02	0.192443D-02	0.564573D-03	0.287180D-02
48	-0.225385D-02	-0.196017D-02	0.302487D-02	0.628955D-03	0.307808D-03
49	-0.180249D-02	-0.179277D-02	-0.234102D-02	-0.277972D-02	-0.210729D-02
50	-0.517571D-02	0.484949D-03	-0.102036D-02	-0.255151D-02	-0.416345D-02
51	-0.360161D-02	0.813952D-03	0.205533D-02	-0.311390D-03	-0.107396D-03
52	-0.299829D-02	0.826324D-03	0.143001D-03	-0.367504D-02	-0.239040D-03
53	-0.416570D-02	0.141179D-03	0.172705D-02	0.178262D-02	-0.730913D-04
54	-0.108433D-02	-0.134738D-02	-0.138659D-02	-0.258670D-02	-0.285910D-02
55	-0.347923D-02	0.500010D-03	-0.326514D-02	-0.441994D-02	-0.934821D-03
56	-0.241581D-03	-0.390380D-03	0.234897D-02	0.443795D-03	0.172884D-03
57	-0.966032D-03	-0.263015D-02	-0.319472D-03	-0.667789D-04	-0.277442D-02
58	-0.203709D+00	-0.122911D+00	-0.819495D-01	-0.122915D+00	-0.107613D+00
59	-0.619545D-04	0.736784D-04	-0.150302D-03	-0.315650D-03	0.211545D-04
60	-0.617567D-04	0.369398D-04	-0.280025D-03	-0.218600D-03	-0.161332D-03
61	0.398910D-03	-0.185924D-03	-0.198255D-03	-0.331735D-03	0.577867D-04

62	-0.805471D-03	0.238698D-03	-0.809448D-03	-0.299392D-03	-0.393738D-03
63	-0.246382D-03	-0.313782D-03	0.352714D-03	0.240142D-03	0.281557D-03
64	0.598158D-03	0.217744D-03	0.726818D-03	0.406081D-03	0.561141D-03
65	0.808575D-03	0.508641D-03	0.602034D-03	0.132081D-02	0.468710D-03
66	0.656576D-03	0.923435D-03	0.120628D-02	0.372779D-03	0.600154D-03
67	0.493657D-03	-0.776166D-03	0.227795D-03	0.607777D-04	0.405180D-03
68	-0.508905D-03	-0.869575D-04	0.213226D-03	0.282449D-05	0.548527D-04
69	-0.621946D-04	0.627327D-03	0.133763D-04	-0.146003D-03	-0.880319D-04
70	-0.361804D-03	-0.265825D-03	-0.428303D-03	-0.549337D-03	-0.388400D-03
71	0.336611D+00	0.245183D+00	0.926218D+00	0.132774D+01	0.559630D+00
72	-0.603231D-03	0.998916D-03	-0.960518D-04	0.555033D-03	0.671101D-03
73	-0.206997D-03	0.467513D-04	-0.580805D-03	0.408197D-05	-0.892541D-03
74	-0.173316D-04	-0.857114D-04	-0.578421D-04	-0.401231D-04	0.130481D-04
75	0.393038D-03	0.973923D-04	0.171792D-03	0.242460D-03	0.322309D-04
76	0.687697D-02	0.469590D-02	0.369778D-02	0.544083D-02	0.336078D-02
77	0.490587D-04	-0.458924D-04	0.377902D-04	-0.463230D-05	0.379375D-04
78	0.168076D-02	0.108956D-02	0.229783D-02	0.210326D-02	0.187080D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.311135D+02				
47	-0.157674D+00	0.598632D+00			
48	-0.719486D-01	0.443951D+00	0.681562D+00		
49	-0.184703D+00	0.296864D+00	0.329715D+00	0.700382D+00	
50	-0.147992D+00	0.385904D+00	0.475508D+00	0.304382D+00	0.668923D+00
51	-0.518171D-01	0.392636D+00	0.473137D+00	0.310658D+00	0.428300D+00
52	-0.933908D-01	0.479391D+00	0.561239D+00	0.347172D+00	0.503294D+00
53	0.419552D-01	0.323081D+00	0.395509D+00	0.245969D+00	0.352800D+00
54	-0.749499D-01	0.224894D+00	0.286522D+00	0.154850D+00	0.252296D+00
55	-0.110260D+00	0.429271D+00	0.516228D+00	0.343977D+00	0.465240D+00
56	-0.168312D+00	0.415115D+00	0.486740D+00	0.303116D+00	0.429863D+00
57	-0.846523D-01	0.348487D+00	0.439688D+00	0.284099D+00	0.389708D+00
58	-0.126970D+02	0.941325D+01	0.108415D+02	0.757005D+01	0.976438D+01
59	0.185344D-03	-0.102575D-02	-0.185363D-02	-0.148976D-02	-0.321221D-02
60	0.130233D-01	-0.550325D-02	0.192300D-03	0.577504D-03	-0.146262D-02
61	-0.144783D-01	-0.518185D-03	-0.612033D-02	0.569256D-03	-0.269744D-02
62	0.229144D-02	-0.334097D-02	-0.267108D-02	-0.120709D-01	-0.178048D-02
63	0.265255D-02	-0.395282D-03	0.333520D-03	0.581196D-04	-0.585524D-02
64	-0.855252D-02	0.220833D-02	0.344257D-02	-0.356443D-02	-0.546473D-03
65	0.132592D-02	-0.516311D-02	-0.333706D-02	-0.361319D-02	-0.127774D-02
66	0.100484D-01	0.322139D-02	0.196861D-03	-0.221712D-02	-0.622525D-03
67	0.115042D-01	0.496265D-02	-0.266319D-02	-0.175632D-02	0.475045D-02

68	-0.125553D-01	0.314848D-03	0.331499D-02	0.277636D-03	0.943829D-05
69	-0.680713D-02	-0.250832D-02	-0.298615D-02	-0.235476D-02	-0.172610D-02
70	-0.134721D-01	0.169632D-02	0.554891D-02	0.217592D-02	0.171043D-02
71	-0.597512D+02	0.430524D+00	0.740073D+00	-0.445871D+01	0.274304D+01
72	0.828661D-01	-0.499638D-01	-0.599831D-01	-0.395486D-01	-0.540212D-01
73	0.108390D-01	-0.190554D-02	-0.318105D-02	0.427691D-02	-0.869551D-03
74	0.411525D-02	-0.867537D-02	-0.100939D-01	-0.669650D-02	-0.915475D-02
75	0.190045D-02	0.332219D-03	-0.461209D-03	-0.579116D-03	-0.101025D-02
76	0.126120D+00	-0.589299D-01	-0.530048D-01	-0.199732D-01	-0.527980D-01
77	-0.179149D-02	0.176296D-03	-0.161646D-03	-0.174394D-03	-0.430464D-03
78	0.345642D-01	-0.522852D-03	0.495805D-04	-0.894757D-03	-0.354074D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.657362D+00				
52	0.488546D+00	0.993622D+00			
53	0.354920D+00	0.409245D+00	0.677537D+00		
54	0.277034D+00	0.301895D+00	0.228167D+00	0.542249D+00	
55	0.471547D+00	0.546957D+00	0.378160D+00	0.288126D+00	0.717132D+00
56	0.431900D+00	0.500268D+00	0.359348D+00	0.252299D+00	0.485187D+00
57	0.412138D+00	0.450055D+00	0.314303D+00	0.234821D+00	0.435789D+00
58	0.101570D+02	0.113603D+02	0.935212D+01	0.636894D+01	0.104222D+02
59	-0.221806D-02	-0.142679D-02	-0.211513D-02	-0.178773D-02	-0.257133D-02
60	0.143745D-02	-0.221739D-02	0.154039D-02	0.346396D-02	0.640015D-03
61	0.143926D-02	-0.405433D-03	-0.243037D-02	-0.222399D-02	0.256153D-02
62	-0.583393D-02	-0.429825D-02	-0.145849D-02	0.186913D-02	-0.680452D-02
63	-0.678310D-04	-0.904782D-03	0.119300D-02	-0.127400D-02	-0.173584D-02
64	-0.483556D-02	0.914188D-03	0.861332D-03	0.129894D-02	0.877470D-05
65	-0.147540D-02	-0.123338D-01	-0.391696D-02	-0.190264D-02	0.201709D-02
66	0.727885D-03	0.471430D-02	-0.103620D-01	-0.382932D-02	0.837187D-03
67	-0.195946D-02	-0.450003D-02	-0.418484D-03	-0.909901D-02	0.264332D-03
68	0.217912D-03	0.203953D-02	0.160966D-02	0.216222D-02	-0.873803D-02
69	0.240705D-02	-0.101900D-02	-0.256443D-02	-0.209664D-03	-0.191038D-02
70	-0.104968D-02	0.398478D-02	0.304659D-02	0.311341D-02	-0.126437D-02
71	-0.921436D+01	0.134028D+01	0.693968D+01	-0.691039D+01	0.317019D+00
72	-0.535257D-01	-0.561415D-01	-0.397493D-01	-0.338882D-01	-0.617938D-01
73	-0.292176D-02	-0.309977D-02	-0.127395D-02	-0.325336D-02	-0.336784D-02
74	-0.915371D-02	-0.106622D-01	-0.710548D-02	-0.552404D-02	-0.988377D-02
75	-0.886405D-04	-0.737910D-03	-0.183329D-03	-0.113167D-02	-0.107128D-02
76	-0.531451D-01	-0.649764D-01	-0.495482D-01	-0.526316D-01	-0.592715D-01
77	0.456521D-04	-0.165858D-03	-0.204064D-03	-0.376768D-03	-0.107936D-03
78	-0.193938D-03	-0.426434D-03	-0.246855D-03	-0.136387D-02	-0.107478D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	0.665906D+00				
57	0.405487D+00	0.605283D+00			
58	0.102739D+02	0.868311D+01	0.100959D+04		
59	-0.194470D-02	-0.308538D-02	-0.283699D-01	0.271896D-02	
60	-0.258387D-02	0.346870D-03	0.796180D-01	-0.136096D-03	0.101489D-01
61	-0.237627D-03	0.298634D-02	-0.131935D+00	-0.710291D-04	0.177096D-03
62	-0.517134D-02	-0.345582D-02	-0.429004D+00	0.699115D-06	0.784537D-04
63	-0.206408D-02	0.990617D-04	0.835152D-01	0.212973D-03	0.359968D-03
64	0.407200D-02	-0.312547D-02	0.448686D-01	0.435503D-03	0.100688D-03
65	0.298841D-02	-0.589878D-03	-0.162125D+00	-0.592383D-03	0.371775D-04
66	0.863434D-03	-0.175779D-02	-0.179452D+00	-0.238428D-03	-0.318943D-03
67	0.233892D-03	0.175535D-02	-0.769852D-01	-0.191926D-03	-0.301868D-03
68	-0.168438D-02	-0.490931D-02	0.194656D+00	0.100310D-03	-0.372819D-03
69	-0.749683D-02	-0.240490D-03	0.131221D+00	0.965967D-04	0.430756D-03
70	0.382748D-03	-0.266137D-02	0.132573D+00	0.246964D-03	-0.711340D-03
71	0.217473D+01	-0.516842D+01	-0.202739D+03	-0.451818D+00	0.158647D+01
72	-0.542310D-01	-0.480334D-01	-0.152221D+01	0.170910D-03	-0.827549D-03
73	-0.763197D-03	0.541846D-03	-0.195825D+00	0.861369D-04	-0.775240D-04
74	-0.923390D-02	-0.804755D-02	-0.214281D+00	0.564253D-04	0.161590D-04
75	-0.248360D-03	-0.455785D-03	-0.545000D-01	0.746994D-04	-0.321391D-04
76	-0.522646D-01	-0.668999D-01	-0.126414D+01	-0.961768D-03	0.119438D-02
77	-0.308259D-03	-0.142382D-03	-0.178419D-01	0.744436D-05	0.113084D-04
78	-0.100944D-02	-0.403362D-03	-0.106131D+00	-0.338625D-04	0.102348D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	0.620140D-02				
62	-0.886482D-03	0.338746D-01			
63	-0.292847D-03	0.387942D-04	0.111812D-01		
64	-0.706876D-03	0.908993D-03	-0.298352D-03	0.971221D-02	
65	0.100476D-02	0.782533D-03	-0.866854D-03	-0.195417D-03	0.343820D-01
66	0.713121D-03	-0.448812D-03	0.270713D-03	-0.100526D-02	0.671037D-03
67	0.112439D-03	0.273094D-04	0.119039D-03	-0.522516D-04	0.107549D-02
68	-0.945846D-03	-0.461200D-04	0.507443D-05	0.111879D-03	-0.101429D-02
69	0.470500D-03	-0.389100D-03	-0.500595D-03	-0.669832D-03	-0.628867D-03
70	-0.949664D-03	0.215558D-03	0.454701D-03	0.397040D-03	-0.111782D-02
71	-0.100431D+01	-0.152157D+00	-0.632530D+00	0.923138D+00	0.175921D+01

72	-0.850189D-03	0.103035D-04	-0.458512D-03	-0.922520D-04	-0.115438D-02
73	0.729804D-04	-0.284683D-03	-0.178903D-03	-0.192555D-03	-0.404851D-03
74	0.609152D-05	0.721108D-04	0.680287D-04	-0.662675D-04	0.512474D-04
75	-0.141973D-03	-0.733754D-04	-0.637703D-04	-0.319695D-04	-0.801808D-04
76	0.257199D-02	0.148551D-02	-0.511535D-03	-0.706773D-03	0.586021D-03
77	-0.295003D-04	0.324555D-04	0.577992D-04	0.122873D-04	-0.250015D-04
78	-0.970467D-04	0.295248D-03	-0.532916D-04	0.691758D-04	-0.219594D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.263819D-01				
67	0.185124D-02	0.239623D-01			
68	-0.729553D-03	-0.269504D-03	0.903786D-02		
69	0.170200D-03	-0.173986D-03	-0.533604D-04	0.939977D-02	
70	-0.500945D-03	-0.678457D-03	0.128458D-02	-0.567554D-03	0.975428D-02
71	0.228868D+01	0.123499D+01	-0.140744D+01	-0.101674D+01	0.430441D+00
72	0.162728D-02	-0.103944D-02	0.839909D-03	-0.402148D-04	0.999896D-03
73	-0.575551D-03	0.171909D-02	-0.161549D-03	-0.169928D-03	-0.345718D-03
74	-0.883800D-05	-0.459129D-04	-0.189042D-04	-0.194077D-04	-0.516343D-04
75	-0.106131D-03	0.794274D-04	0.209809D-03	0.670539D-04	-0.554473D-04
76	0.136188D-02	0.551771D-03	-0.219452D-02	0.961989D-03	0.542657D-03
77	-0.337859D-04	0.136019D-04	0.248632D-05	0.579602D-05	0.880604D-04
78	0.234442D-03	0.675288D-05	-0.496318D-04	0.375170D-04	0.445388D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.963602D+05				
72	-0.483054D+00	0.534726D-01			
73	0.814757D+00	0.130477D-03	0.242964D-01		
74	-0.167450D+00	0.122419D-02	-0.258491D-04	0.339256D-03	
75	-0.688497D-01	0.598445D-03	-0.118815D-03	0.384362D-04	0.185884D-02
76	-0.269496D+01	0.328636D-02	-0.123309D-02	0.128978D-02	-0.218739D-02
77	0.116006D+00	-0.181825D-03	0.345703D-04	0.525054D-05	-0.226995D-04
78	0.658285D-01	0.573485D-03	-0.268239D-03	0.111986D-04	-0.206321D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	0.622944D+00		

77 0.557599D-04 0.114456D-03  
78 0.141603D-02 0.764256D-04 0.173956D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.195	1.000			
3	-0.089	-0.176	1.000		
4	0.035	0.195	-0.125	1.000	
5	0.080	0.188	-0.094	0.199	1.000
6	-0.067	-0.164	0.182	-0.177	-0.227
7	0.008	0.007	-0.002	-0.019	-0.030
8	0.024	-0.013	-0.011	-0.018	-0.050
9	0.021	0.034	0.011	0.038	0.005
10	0.000	0.036	0.026	0.037	0.019
11	0.022	0.009	0.001	0.005	0.042
12	-0.019	-0.011	-0.010	-0.035	0.038
13	0.014	0.021	-0.022	0.005	0.024
14	-0.029	0.046	-0.023	-0.002	-0.016
15	-0.007	0.010	-0.040	0.021	0.020
16	-0.039	-0.027	-0.042	0.012	-0.039
17	-0.004	-0.024	0.054	-0.030	-0.005
18	0.016	0.060	-0.030	0.012	0.015
19	-0.030	-0.020	0.019	0.019	-0.061
20	0.001	-0.025	-0.023	-0.006	-0.023
21	-0.004	0.017	0.025	0.031	0.019
22	-0.026	-0.005	-0.016	0.027	0.009
23	-0.009	0.013	-0.020	0.009	-0.028
24	0.011	-0.014	0.022	-0.033	0.007
25	-0.043	0.050	-0.009	-0.009	0.046
26	-0.005	-0.019	0.020	0.021	-0.030
27	-0.012	-0.061	0.039	0.015	-0.040
28	-0.029	-0.015	0.002	0.002	0.001
29	-0.043	-0.023	0.029	-0.036	-0.050
30	0.014	0.027	-0.016	0.013	-0.033
31	0.004	0.017	-0.001	-0.006	0.000
32	-0.016	0.038	0.001	-0.013	0.022
33	0.024	-0.026	-0.085	0.035	0.003
34	-0.041	-0.021	0.016	-0.015	0.035
35	-0.029	0.007	0.022	0.001	0.023
36	0.006	0.017	0.018	0.021	0.049
37	0.012	-0.025	0.018	-0.013	0.028

38	-0.005	0.004	0.022	0.014	0.000
39	-0.015	0.006	-0.025	0.010	0.028
40	0.031	0.009	0.011	0.018	0.019
41	-0.021	0.037	-0.004	0.016	0.023
42	0.045	-0.027	0.054	-0.006	0.012
43	0.027	0.026	0.015	0.027	0.053
44	-0.020	0.011	0.002	0.016	0.051
45	0.004	0.008	-0.001	0.003	0.047
46	-0.001	0.019	0.004	0.036	0.032
47	0.022	0.027	-0.025	0.006	0.026
48	0.035	0.044	-0.020	0.035	0.007
49	0.006	0.032	0.001	0.004	0.034
50	0.023	0.047	-0.042	0.026	-0.002
51	0.015	0.043	-0.053	0.052	0.017
52	0.033	0.022	-0.013	-0.004	-0.001
53	0.005	0.024	-0.038	0.003	-0.012
54	0.049	0.065	-0.048	0.017	0.018
55	0.047	0.021	-0.022	-0.008	0.015
56	0.074	0.066	-0.030	0.032	0.017
57	0.029	0.057	-0.045	0.002	0.017
58	-0.003	0.031	-0.042	0.048	0.020
59	-0.018	0.018	0.047	0.005	-0.056
60	0.035	0.045	-0.047	0.019	0.041
61	0.016	-0.004	-0.024	-0.041	-0.027
62	0.007	0.056	-0.002	0.006	-0.003
63	-0.006	-0.038	0.035	-0.003	0.003
64	0.081	0.036	0.012	-0.014	0.003
65	0.003	-0.005	0.011	0.010	0.018
66	0.064	-0.015	0.002	0.004	-0.043
67	-0.009	-0.025	-0.027	-0.008	-0.033
68	-0.010	0.017	0.013	-0.003	-0.013
69	-0.013	-0.006	-0.027	-0.007	0.025
70	-0.034	-0.027	0.051	-0.020	-0.010
71	0.000	0.033	-0.020	0.048	0.028
72	-0.016	-0.007	0.022	0.001	-0.028
73	0.026	0.045	-0.025	0.001	0.002
74	-0.001	-0.031	0.011	0.008	-0.007
75	0.039	0.016	0.012	-0.009	0.001
76	0.016	0.003	-0.042	0.067	0.007
77	-0.040	-0.044	0.030	0.006	0.025
78	0.010	0.014	-0.023	-0.037	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.026	1.000			
8	-0.043	-0.114	1.000		
9	-0.047	0.017	0.117	1.000	
10	0.008	-0.038	-0.145	0.013	1.000
11	-0.036	0.001	-0.138	0.022	-0.172
12	0.035	0.033	0.153	-0.152	0.059
13	0.000	0.027	0.009	-0.022	-0.002
14	0.000	0.006	-0.032	-0.045	0.058
15	-0.028	-0.024	-0.014	-0.027	0.033
16	-0.017	-0.019	0.025	0.009	0.006
17	-0.011	0.012	-0.014	-0.006	0.011
18	-0.013	-0.009	-0.020	-0.041	-0.019
19	0.019	-0.037	0.019	0.009	0.025
20	0.012	0.008	-0.008	0.001	0.036
21	-0.015	0.015	-0.008	0.022	-0.033
22	-0.046	0.025	0.004	-0.008	0.004
23	-0.014	0.003	0.064	0.014	0.032
24	0.022	-0.007	-0.008	-0.032	0.025
25	0.009	-0.028	-0.013	0.006	0.022
26	-0.036	0.010	-0.019	0.003	-0.010
27	0.004	-0.016	-0.010	0.014	0.032
28	0.013	0.055	-0.036	-0.012	-0.018
29	0.036	0.028	-0.053	0.004	0.024
30	-0.006	-0.029	-0.015	-0.010	-0.025
31	0.038	0.008	0.002	0.002	0.012
32	0.011	0.038	0.002	0.038	-0.001
33	-0.006	0.006	-0.018	0.013	-0.011
34	0.020	-0.018	0.017	-0.040	-0.020
35	0.033	-0.024	0.050	0.006	-0.001
36	0.022	-0.015	0.052	0.052	0.012
37	0.046	-0.058	0.045	0.020	0.000
38	0.023	0.035	0.025	0.034	0.008
39	0.049	-0.002	0.034	0.040	-0.006
40	0.016	-0.027	0.059	0.007	0.004
41	0.003	-0.042	0.036	0.034	-0.003
42	-0.030	-0.011	0.016	0.009	0.009
43	0.008	-0.024	0.070	0.032	0.000
44	0.020	-0.020	0.046	0.034	-0.006
45	0.014	-0.053	0.058	0.037	-0.013
46	-0.002	-0.009	0.025	0.015	0.036
47	0.006	-0.026	0.040	-0.004	0.003



48	0.005	-0.029	0.030	-0.014	0.052
49	-0.007	0.033	0.035	-0.024	0.005
50	-0.015	-0.017	0.017	-0.008	0.056
51	0.010	-0.037	0.026	0.001	0.016
52	0.002	0.014	0.022	-0.019	0.015
53	-0.001	-0.014	0.013	-0.039	0.014
54	-0.002	0.021	-0.009	-0.036	0.055
55	0.003	-0.016	0.012	0.014	0.034
56	-0.003	-0.023	0.039	0.003	-0.003
57	0.018	-0.033	0.024	-0.001	0.047
58	0.008	-0.048	0.036	0.000	0.012
59	0.039	0.013	0.021	0.025	0.020
60	-0.026	0.020	0.005	-0.037	0.001
61	0.048	0.008	0.001	0.034	-0.003
62	-0.015	0.026	-0.013	0.015	0.006
63	0.011	0.028	0.023	-0.004	-0.006
64	0.026	0.033	0.020	0.006	-0.014
65	-0.004	-0.016	-0.014	0.029	0.006
66	0.019	0.004	0.039	-0.025	-0.035
67	0.007	-0.017	0.014	-0.011	-0.026
68	0.046	-0.033	0.010	-0.048	0.008
69	-0.011	-0.011	0.003	0.043	-0.014
70	-0.015	0.057	-0.004	0.020	-0.005
71	-0.029	0.002	0.010	-0.025	-0.016
72	0.036	0.020	-0.043	-0.061	-0.027
73	0.065	0.007	0.012	0.011	0.030
74	-0.023	0.011	-0.027	0.005	-0.016
75	-0.016	-0.055	0.032	-0.058	-0.038
76	0.012	0.010	-0.004	0.007	-0.025
77	0.006	0.006	-0.043	0.031	0.017
78	0.008	0.348	0.039	-0.003	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.179	1.000			
13	-0.029	0.006	1.000		
14	-0.007	0.019	0.242	1.000	
15	0.005	-0.005	0.016	0.273	1.000
16	0.001	0.032	-0.129	-0.192	-0.068
17	-0.014	0.015	-0.013	-0.110	-0.261
18	0.012	0.002	0.006	0.014	0.065

19	-0.017	-0.004	0.064	0.244	0.061
20	-0.019	-0.028	-0.006	0.076	0.310
21	-0.005	-0.011	-0.021	-0.032	-0.022
22	0.033	0.032	0.020	-0.004	0.042
23	-0.056	-0.009	0.141	0.191	0.100
24	-0.012	0.014	0.023	0.133	0.231
25	0.016	-0.036	-0.029	-0.021	-0.042
26	-0.013	-0.031	0.027	0.067	0.037
27	-0.044	0.015	0.000	0.063	0.063
28	0.013	0.025	-0.086	-0.228	-0.065
29	-0.006	-0.033	-0.046	-0.121	-0.290
30	-0.002	-0.008	0.034	0.042	0.034
31	0.022	0.010	-0.033	-0.010	-0.065
32	0.060	0.005	-0.037	-0.047	-0.064
33	-0.033	0.008	0.071	0.035	-0.013
34	-0.001	0.003	0.002	-0.012	-0.012
35	0.022	0.062	0.007	0.001	-0.031
36	0.011	0.043	0.018	-0.033	-0.005
37	0.020	0.038	-0.012	-0.011	0.005
38	0.018	0.028	0.007	-0.011	-0.031
39	0.059	0.060	-0.009	-0.019	-0.005
40	0.020	0.038	0.008	-0.026	-0.036
41	0.047	0.056	0.039	-0.005	0.017
42	0.063	0.043	-0.015	-0.019	-0.016
43	0.037	0.049	0.010	-0.008	0.011
44	0.019	0.019	0.002	-0.027	-0.019
45	0.027	0.056	-0.025	-0.004	-0.009
46	-0.040	0.031	0.007	-0.025	0.021
47	0.008	0.020	0.005	-0.027	0.019
48	0.002	0.052	0.000	-0.032	0.000
49	-0.011	0.041	-0.007	-0.015	0.018
50	0.005	-0.005	-0.005	-0.003	0.005
51	0.000	0.021	-0.025	-0.039	-0.004
52	-0.010	0.020	-0.014	-0.010	-0.005
53	0.018	0.021	-0.016	-0.047	-0.016
54	0.008	0.026	-0.017	0.010	0.021
55	0.001	0.030	0.011	-0.013	-0.004
56	0.024	0.021	0.016	-0.014	-0.001
57	-0.018	0.021	0.034	-0.003	0.003
58	-0.009	0.005	0.017	-0.001	-0.022
59	0.004	0.044	-0.015	-0.006	0.006
60	0.000	0.052	-0.013	-0.048	-0.030
61	-0.014	-0.031	-0.008	-0.020	-0.064
62	-0.059	-0.036	-0.015	-0.009	-0.033

63	0.004	0.044	0.032	-0.002	0.041
64	0.033	0.000	0.003	0.011	-0.028
65	0.005	0.003	0.025	-0.037	-0.047
66	0.023	0.041	-0.010	0.011	0.040
67	-0.005	0.031	-0.022	-0.007	0.007
68	-0.029	0.013	-0.001	-0.009	0.008
69	-0.009	-0.007	-0.027	0.001	0.015
70	0.078	0.017	0.008	0.015	0.050
71	0.014	-0.014	0.039	-0.026	-0.057
72	-0.046	-0.031	-0.008	0.014	-0.017
73	-0.033	-0.010	0.011	0.015	-0.029
74	-0.018	-0.045	-0.003	0.016	0.031
75	-0.021	0.004	-0.008	-0.044	-0.026
76	0.048	0.015	0.043	-0.013	0.010
77	0.038	-0.009	0.004	-0.006	0.092
78	-0.012	0.016	0.001	0.017	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.208	1.000			
18	-0.067	-0.256	1.000		
19	-0.091	-0.027	-0.008	1.000	
20	-0.005	-0.160	0.018	0.218	1.000
21	0.013	0.275	-0.167	-0.072	-0.174
22	-0.014	-0.008	0.008	0.041	0.282
23	-0.068	-0.039	0.009	0.243	0.030
24	-0.029	-0.154	0.048	0.046	0.208
25	0.074	0.236	-0.114	0.038	-0.018
26	-0.005	-0.045	-0.018	0.086	0.177
27	-0.044	-0.079	-0.001	0.028	0.078
28	0.216	0.035	-0.009	-0.179	-0.048
29	0.061	0.232	-0.063	-0.053	-0.215
30	-0.091	-0.211	0.252	0.010	0.028
31	0.012	0.082	-0.073	-0.096	-0.249
32	0.054	0.085	-0.029	0.010	-0.073
33	-0.026	-0.049	0.075	0.025	0.023
34	0.048	-0.019	-0.035	0.004	0.005
35	0.021	0.007	0.027	0.020	-0.015
36	0.036	-0.008	0.045	0.014	0.026
37	0.024	0.009	-0.019	0.022	-0.025
38	0.037	0.027	-0.003	0.033	0.012

39	0.041	0.022	0.006	0.041	-0.010
40	0.021	0.021	-0.001	0.027	-0.012
41	0.022	-0.024	-0.011	0.004	0.015
42	-0.042	0.020	0.001	0.053	0.004
43	0.035	-0.012	-0.004	0.042	-0.009
44	0.050	0.013	-0.005	0.027	0.002
45	0.021	-0.029	0.004	0.047	0.001
46	0.017	-0.023	-0.037	-0.049	0.024
47	0.012	0.022	-0.011	-0.029	-0.028
48	-0.008	0.002	-0.007	-0.022	-0.028
49	0.017	0.013	-0.011	-0.022	-0.020
50	-0.023	0.002	-0.007	0.016	-0.019
51	0.001	0.001	0.000	-0.015	-0.008
52	0.000	0.011	-0.004	-0.022	-0.022
53	-0.017	0.011	0.002	-0.022	-0.025
54	-0.020	-0.038	-0.011	-0.034	0.005
55	-0.025	0.012	-0.012	-0.014	0.004
56	-0.010	0.017	0.030	-0.041	-0.044
57	-0.013	0.004	0.003	-0.005	-0.031
58	-0.012	0.035	-0.050	-0.035	-0.031
59	-0.001	-0.049	-0.011	-0.031	-0.010
60	0.025	-0.014	0.016	-0.008	-0.017
61	-0.007	-0.003	0.017	-0.006	-0.010
62	0.000	-0.001	0.004	0.008	-0.002
63	0.041	0.027	-0.028	0.006	0.021
64	0.046	-0.006	0.021	0.027	-0.005
65	0.001	0.036	-0.025	-0.040	-0.059
66	-0.012	-0.007	-0.026	0.039	-0.021
67	-0.018	-0.003	-0.002	-0.012	-0.046
68	0.034	0.003	-0.045	0.013	-0.008
69	0.022	0.072	-0.011	0.000	-0.029
70	0.028	-0.025	-0.005	0.002	0.015
71	-0.055	-0.012	0.004	0.044	-0.014
72	0.005	0.014	0.013	0.010	-0.015
73	-0.019	0.006	0.024	0.028	0.033
74	0.000	-0.024	0.019	0.027	0.035
75	0.023	-0.013	-0.012	-0.002	0.007
76	0.007	0.026	-0.010	-0.014	-0.016
77	0.003	-0.012	0.016	0.060	0.125
78	-0.023	-0.011	0.024	0.022	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

21

22

23

24

25

21	1.000				
22	-0.164	1.000			
23	-0.016	0.015	1.000		
24	-0.062	0.062	0.181	1.000	
25	0.191	-0.015	-0.056	-0.179	1.000
26	-0.056	0.280	0.096	0.229	-0.091
27	-0.046	0.065	0.136	0.242	-0.112
28	-0.015	-0.015	-0.239	-0.071	0.050
29	0.030	-0.012	-0.123	-0.224	0.094
30	-0.180	0.051	0.054	0.049	-0.193
31	0.136	-0.249	-0.036	-0.125	0.094
32	0.018	0.009	-0.120	-0.244	0.228
33	-0.032	0.004	0.076	0.046	-0.085
34	0.039	0.031	0.020	0.015	0.021
35	0.059	0.003	0.030	0.000	-0.002
36	0.053	0.029	0.028	-0.016	0.023
37	0.059	0.007	0.040	-0.018	0.032
38	0.063	0.008	0.028	-0.031	0.014
39	0.080	0.019	0.041	-0.032	0.026
40	0.062	-0.001	0.071	-0.001	0.006
41	0.065	0.040	0.037	0.010	0.008
42	0.038	0.029	0.026	-0.024	0.008
43	0.075	-0.014	0.040	-0.021	0.019
44	0.065	0.012	0.036	-0.016	0.020
45	0.054	0.001	0.060	-0.005	0.042
46	0.066	-0.006	0.024	-0.020	0.019
47	-0.026	0.008	0.023	-0.012	0.017
48	-0.007	-0.001	-0.009	-0.037	-0.006
49	-0.016	0.031	-0.010	0.017	-0.018
50	-0.027	0.004	0.005	-0.027	0.028
51	-0.009	0.013	0.011	-0.063	0.009
52	-0.011	-0.017	-0.016	-0.045	0.022
53	0.009	-0.007	-0.013	-0.028	-0.006
54	-0.022	0.011	-0.019	-0.008	0.017
55	-0.013	0.010	0.018	0.008	-0.039
56	0.005	-0.015	0.016	-0.013	-0.002
57	-0.018	-0.024	0.021	-0.045	0.023
58	0.034	-0.015	0.004	-0.011	-0.009
59	0.029	-0.002	-0.001	0.045	0.006
60	0.021	0.000	0.005	0.015	0.014
61	-0.030	-0.026	-0.006	0.020	-0.003
62	-0.030	0.013	0.000	-0.011	0.008
63	-0.004	0.024	-0.004	-0.014	-0.004

64	-0.005	0.004	-0.053	0.044	-0.014
65	0.010	-0.021	0.015	-0.029	-0.044
66	-0.014	-0.038	0.053	-0.045	-0.025
67	-0.032	-0.017	-0.043	0.001	-0.022
68	-0.005	-0.013	-0.009	0.012	0.014
69	0.034	-0.012	0.000	-0.040	0.041
70	-0.018	0.021	0.010	0.021	0.002
71	-0.037	-0.028	0.019	-0.011	-0.039
72	0.035	-0.024	0.032	-0.006	0.009
73	-0.047	0.075	-0.024	-0.010	0.029
74	0.026	0.010	0.028	0.050	-0.029
75	0.009	-0.041	0.006	0.047	0.021
76	0.031	-0.011	0.053	-0.002	0.011
77	-0.056	0.074	0.011	0.036	0.027
78	0.035	0.013	0.031	-0.017	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.332	1.000			
28	-0.028	-0.033	1.000		
29	-0.057	-0.082	0.166	1.000	
30	0.019	0.015	-0.056	-0.191	1.000
31	-0.210	-0.074	0.032	0.271	-0.165
32	-0.198	-0.292	0.084	0.232	-0.126
33	0.037	0.043	-0.072	-0.288	0.256
34	-0.014	0.037	0.017	-0.015	-0.002
35	-0.056	-0.034	0.021	-0.029	0.044
36	-0.038	0.009	0.026	-0.017	0.029
37	-0.036	0.008	-0.004	-0.020	-0.001
38	-0.037	0.007	0.004	0.000	0.000
39	-0.052	-0.013	-0.006	-0.009	0.031
40	-0.033	-0.003	-0.038	-0.023	0.029
41	-0.026	0.007	-0.020	-0.012	0.010
42	-0.005	0.016	-0.029	-0.009	0.020
43	-0.048	-0.010	-0.014	-0.038	0.045
44	-0.051	-0.023	0.010	-0.027	0.007
45	-0.042	0.017	-0.023	0.002	0.032
46	-0.054	-0.011	-0.004	-0.014	0.011
47	-0.016	0.006	-0.027	0.012	-0.002
48	-0.017	-0.019	-0.012	0.045	-0.019
49	0.008	0.005	0.003	0.016	-0.027

50	0.002	-0.014	-0.031	0.044	-0.016
51	-0.002	-0.020	-0.008	0.025	-0.015
52	-0.006	-0.004	0.010	0.057	-0.039
53	-0.025	-0.013	-0.009	0.033	0.025
54	0.030	0.020	-0.033	-0.013	-0.007
55	-0.018	0.012	-0.030	0.034	-0.028
56	0.005	-0.001	-0.024	0.022	-0.045
57	-0.009	-0.021	-0.047	0.020	-0.011
58	0.007	0.020	-0.002	0.021	-0.049
59	0.013	-0.036	0.019	-0.007	-0.047
60	-0.011	0.030	0.013	0.002	0.007
61	0.012	0.044	0.043	-0.052	-0.038
62	-0.022	-0.024	-0.023	0.027	0.020
63	0.015	0.022	-0.019	-0.058	-0.014
64	-0.006	-0.010	-0.002	0.005	0.041
65	-0.005	0.022	0.021	-0.003	0.046
66	-0.011	0.057	-0.016	-0.014	0.004
67	-0.027	0.008	0.020	0.026	-0.019
68	0.002	-0.013	0.011	-0.013	-0.026
69	-0.001	0.012	0.014	-0.038	-0.027
70	-0.010	-0.011	-0.001	-0.017	-0.019
71	-0.051	-0.008	-0.059	-0.023	0.008
72	-0.034	-0.008	0.005	-0.028	0.032
73	0.019	-0.013	0.045	0.049	0.009
74	0.027	0.038	0.022	-0.038	0.047
75	0.001	0.004	-0.020	-0.063	0.001
76	-0.013	0.000	-0.007	0.001	0.023
77	0.005	-0.024	0.009	-0.014	-0.007
78	-0.024	0.003	0.014	0.001	-0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.233	1.000			
33	-0.268	-0.281	1.000		
34	-0.008	-0.008	-0.016	1.000	
35	0.014	-0.010	0.013	0.284	1.000
36	-0.002	-0.007	0.019	0.336	0.673
37	0.030	0.004	0.011	0.245	0.410
38	-0.009	-0.011	0.010	0.318	0.617
39	0.010	0.010	0.036	0.335	0.639
40	0.001	-0.011	0.014	0.286	0.586

41	0.000	0.008	0.010	0.240	0.476
42	-0.031	0.019	0.002	0.175	0.391
43	0.010	-0.010	0.023	0.334	0.630
44	0.001	0.011	0.024	0.323	0.640
45	0.020	-0.001	0.020	0.303	0.588
46	0.031	-0.020	-0.001	0.108	0.300
47	0.011	-0.004	0.008	0.031	0.017
48	0.034	-0.010	-0.020	0.008	0.021
49	0.001	-0.003	-0.037	-0.019	-0.005
50	0.033	-0.008	-0.027	0.008	-0.003
51	0.034	0.003	-0.008	0.010	0.016
52	0.029	-0.007	-0.029	0.032	0.013
53	0.048	-0.027	-0.018	0.022	0.050
54	0.013	-0.030	-0.004	0.013	-0.050
55	0.035	-0.008	-0.033	0.032	-0.021
56	0.027	-0.016	0.010	0.039	0.012
57	0.057	0.023	-0.026	0.019	-0.005
58	0.040	0.020	-0.063	-0.003	-0.004
59	0.034	-0.040	-0.034	-0.033	-0.020
60	0.036	0.027	0.005	0.001	-0.033
61	0.014	-0.004	0.042	-0.039	-0.022
62	-0.018	0.023	0.026	0.000	-0.016
63	-0.053	0.037	0.008	-0.005	0.021
64	-0.004	-0.002	0.025	-0.008	0.032
65	-0.020	0.015	0.013	0.047	0.017
66	-0.028	-0.008	-0.022	0.005	-0.002
67	0.010	-0.013	0.007	-0.040	0.008
68	-0.006	-0.037	0.004	0.059	-0.009
69	-0.020	0.002	0.013	-0.018	-0.008
70	-0.018	0.018	-0.036	-0.012	0.002
71	-0.023	0.037	-0.034	0.000	0.043
72	-0.017	-0.011	0.004	-0.004	0.013
73	0.003	0.044	-0.005	-0.014	-0.003
74	-0.047	-0.006	0.024	-0.065	-0.024
75	-0.014	-0.007	0.011	0.059	0.013
76	0.005	-0.025	0.012	-0.003	0.047
77	-0.012	0.004	0.010	-0.017	0.018
78	0.032	0.000	-0.032	0.134	0.328

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				



37	0.474	1.000			
38	0.702	0.452	1.000		
39	0.711	0.448	0.659	1.000	
40	0.660	0.425	0.620	0.623	1.000
41	0.561	0.345	0.506	0.514	0.494
42	0.447	0.295	0.425	0.394	0.384
43	0.741	0.462	0.680	0.691	0.638
44	0.722	0.465	0.681	0.675	0.606
45	0.698	0.446	0.631	0.648	0.587
46	0.370	0.262	0.324	0.331	0.300
47	0.028	0.044	-0.010	0.031	0.004
48	0.016	0.008	-0.011	-0.008	0.003
49	-0.019	-0.050	-0.017	-0.041	-0.003
50	-0.013	0.014	-0.011	-0.033	-0.034
51	-0.003	0.008	-0.014	-0.014	-0.011
52	-0.001	0.023	-0.026	-0.026	-0.022
53	0.024	0.028	0.004	0.024	0.004
54	-0.025	0.019	-0.026	-0.020	-0.023
55	-0.004	0.033	-0.027	-0.041	-0.031
56	0.018	0.035	-0.014	-0.022	-0.007
57	-0.004	0.006	-0.027	-0.036	-0.020
58	-0.017	0.014	-0.022	-0.040	-0.060
59	-0.015	0.010	-0.006	0.017	0.012
60	-0.009	-0.009	-0.009	-0.017	0.012
61	-0.003	-0.023	-0.040	-0.026	-0.019
62	-0.031	0.012	-0.017	-0.025	0.016
63	-0.006	0.025	0.035	-0.006	-0.025
64	0.027	0.018	0.027	0.051	0.043
65	0.046	0.025	0.029	0.052	0.023
66	0.006	0.008	0.035	0.019	0.040
67	0.024	0.020	0.024	0.034	-0.004
68	-0.004	-0.066	-0.008	-0.008	-0.004
69	-0.018	-0.007	0.011	0.016	0.024
70	-0.017	-0.005	-0.038	-0.015	-0.042
71	0.008	0.021	0.015	0.031	0.002
72	0.013	0.018	0.017	0.032	0.038
73	-0.012	0.017	-0.030	-0.001	-0.014
74	-0.026	-0.058	0.001	-0.021	-0.010
75	0.035	0.025	0.044	0.059	0.009
76	0.028	-0.006	0.076	0.035	0.023
77	0.016	0.008	-0.005	0.021	0.031
78	0.346	0.190	0.343	0.355	0.308

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.295	1.000			
43	0.534	0.420	1.000		
44	0.525	0.398	0.695	1.000	
45	0.491	0.413	0.665	0.651	1.000
46	0.281	0.207	0.343	0.326	0.294
47	-0.002	-0.016	0.015	0.005	0.026
48	-0.018	-0.017	0.023	0.005	0.003
49	-0.014	-0.016	-0.017	-0.022	-0.017
50	-0.041	0.004	-0.008	-0.021	-0.035
51	-0.029	0.007	0.016	-0.003	-0.001
52	-0.019	0.006	0.001	-0.024	-0.002
53	-0.033	0.001	0.013	0.014	-0.001
54	-0.010	-0.013	-0.012	-0.023	-0.027
55	-0.027	0.004	-0.024	-0.035	-0.008
56	-0.002	-0.003	0.018	0.004	0.001
57	-0.008	-0.025	-0.003	-0.001	-0.025
58	-0.041	-0.028	-0.016	-0.026	-0.023
59	-0.008	0.010	-0.018	-0.040	0.003
60	-0.004	0.003	-0.017	-0.014	-0.011
61	0.033	-0.017	-0.016	-0.028	0.005
62	-0.028	0.009	-0.027	-0.011	-0.015
63	-0.015	-0.022	0.021	0.015	0.018
64	0.039	0.016	0.046	0.027	0.039
65	0.028	0.020	0.020	0.047	0.018
66	0.026	0.041	0.046	0.015	0.026
67	0.021	-0.036	0.009	0.003	0.018
68	-0.035	-0.007	0.014	0.000	0.004
69	-0.004	0.047	0.001	-0.010	-0.006
70	-0.024	-0.020	-0.027	-0.037	-0.027
71	0.007	0.006	0.019	0.028	0.012
72	-0.017	0.031	-0.003	0.016	0.020
73	-0.009	0.002	-0.023	0.000	-0.040
74	-0.006	-0.034	-0.020	-0.014	0.005
75	0.059	0.016	0.025	0.037	0.005
76	0.056	0.043	0.029	0.046	0.029
77	0.030	-0.031	0.022	-0.003	0.025
78	0.261	0.190	0.343	0.334	0.311

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.037	1.000			
48	-0.016	0.695	1.000		
49	-0.040	0.458	0.477	1.000	
50	-0.032	0.610	0.704	0.445	1.000
51	-0.011	0.626	0.707	0.458	0.646
52	-0.017	0.622	0.682	0.416	0.617
53	0.009	0.507	0.582	0.357	0.524
54	-0.018	0.395	0.471	0.251	0.419
55	-0.023	0.655	0.738	0.485	0.672
56	-0.037	0.657	0.723	0.444	0.644
57	-0.020	0.579	0.685	0.436	0.612
58	-0.072	0.383	0.413	0.285	0.376
59	0.001	-0.025	-0.043	-0.034	-0.075
60	0.023	-0.071	0.002	0.007	-0.018
61	-0.033	-0.009	-0.094	0.009	-0.042
62	0.002	-0.023	-0.018	-0.078	-0.012
63	0.004	-0.005	0.004	0.001	-0.068
64	-0.016	0.029	0.042	-0.043	-0.007
65	0.001	-0.036	-0.022	-0.023	-0.008
66	0.011	0.026	0.001	-0.016	-0.005
67	0.013	0.041	-0.021	-0.014	0.038
68	-0.024	0.004	0.042	0.003	0.000
69	-0.013	-0.033	-0.037	-0.029	-0.022
70	-0.024	0.022	0.068	0.026	0.021
71	-0.035	0.002	0.003	-0.017	0.011
72	0.064	-0.279	-0.314	-0.204	-0.286
73	0.012	-0.016	-0.025	0.033	-0.007
74	0.040	-0.609	-0.664	-0.434	-0.608
75	0.008	0.010	-0.013	-0.016	-0.029
76	0.029	-0.097	-0.081	-0.030	-0.082
77	-0.030	0.021	-0.018	-0.019	-0.049
78	0.149	-0.016	0.001	-0.026	-0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.604	1.000			
53	0.532	0.499	1.000		
54	0.464	0.411	0.376	1.000	

55	0.687	0.648	0.543	0.462	1.000
56	0.653	0.615	0.535	0.420	0.702
57	0.653	0.580	0.491	0.410	0.661
58	0.394	0.359	0.358	0.272	0.387
59	-0.052	-0.027	-0.049	-0.047	-0.058
60	0.018	-0.022	0.019	0.047	0.008
61	0.023	-0.005	-0.037	-0.038	0.038
62	-0.039	-0.023	-0.010	0.014	-0.044
63	-0.001	-0.009	0.014	-0.016	-0.019
64	-0.061	0.009	0.011	0.018	0.000
65	-0.010	-0.067	-0.026	-0.014	0.013
66	0.006	0.029	-0.078	-0.032	0.006
67	-0.016	-0.029	-0.003	-0.080	0.002
68	0.003	0.022	0.021	0.031	-0.109
69	0.031	-0.011	-0.032	-0.003	-0.023
70	-0.013	0.040	0.037	0.043	-0.015
71	-0.037	0.004	0.027	-0.030	0.001
72	-0.285	-0.244	-0.209	-0.199	-0.316
73	-0.023	-0.020	-0.010	-0.028	-0.026
74	-0.613	-0.581	-0.469	-0.407	-0.634
75	-0.003	-0.017	-0.005	-0.036	-0.029
76	-0.083	-0.083	-0.076	-0.091	-0.089
77	0.005	-0.016	-0.023	-0.048	-0.012
78	-0.006	-0.010	-0.007	-0.044	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.639	1.000			
58	0.396	0.351	1.000		
59	-0.046	-0.076	-0.017	1.000	
60	-0.031	0.004	0.025	-0.026	1.000
61	-0.004	0.049	-0.053	-0.017	0.022
62	-0.034	-0.024	-0.073	0.000	0.004
63	-0.024	0.001	0.025	0.039	0.034
64	0.051	-0.041	0.014	0.085	0.010
65	0.020	-0.004	-0.028	-0.061	0.002
66	0.007	-0.014	-0.035	-0.028	-0.019
67	0.002	0.015	-0.016	-0.024	-0.019
68	-0.022	-0.066	0.064	0.020	-0.039
69	-0.095	-0.003	0.043	0.019	0.044
70	0.005	-0.035	0.042	0.048	-0.071

71	0.009	-0.021	-0.021	-0.028	0.051
72	-0.287	-0.267	-0.207	0.014	-0.036
73	-0.006	0.004	-0.040	0.011	-0.005
74	-0.614	-0.562	-0.366	0.059	0.009
75	-0.007	-0.014	-0.040	0.033	-0.007
76	-0.081	-0.109	-0.050	-0.023	0.015
77	-0.035	-0.017	-0.052	0.013	0.010
78	-0.030	-0.012	-0.080	-0.016	0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.061	1.000			
63	-0.035	0.002	1.000		
64	-0.091	0.050	-0.029	1.000	
65	0.069	0.023	-0.044	-0.011	1.000
66	0.056	-0.015	0.016	-0.063	0.022
67	0.009	0.001	0.007	-0.003	0.037
68	-0.126	-0.003	0.001	0.012	-0.058
69	0.062	-0.022	-0.049	-0.070	-0.035
70	-0.122	0.012	0.044	0.041	-0.061
71	-0.041	-0.003	-0.019	0.030	0.031
72	-0.047	0.000	-0.019	-0.004	-0.027
73	0.006	-0.010	-0.011	-0.013	-0.014
74	0.004	0.021	0.035	-0.037	0.015
75	-0.042	-0.009	-0.014	-0.008	-0.010
76	0.041	0.010	-0.006	-0.009	0.004
77	-0.035	0.016	0.051	0.012	-0.013
78	-0.030	0.038	-0.012	0.017	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.074	1.000			
68	-0.047	-0.018	1.000		
69	0.011	-0.012	-0.006	1.000	
70	-0.031	-0.044	0.137	-0.059	1.000
71	0.045	0.026	-0.048	-0.034	0.014
72	0.043	-0.029	0.038	-0.002	0.044
73	-0.023	0.071	-0.011	-0.011	-0.022

74	-0.003	-0.016	-0.011	-0.011	-0.028
75	-0.015	0.012	0.051	0.016	-0.013
76	0.011	0.005	-0.029	0.013	0.007
77	-0.019	0.008	0.002	0.006	0.083
78	0.035	0.001	-0.013	0.009	0.011

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.007	1.000			
73	0.017	0.004	1.000		
74	-0.029	0.287	-0.009	1.000	
75	-0.005	0.060	-0.018	0.048	1.000
76	-0.011	0.018	-0.010	0.089	-0.064
77	0.035	-0.073	0.021	0.027	-0.049
78	0.005	0.059	-0.041	0.015	-0.011

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78
76	1.000		
77	0.007	1.000	
78	0.043	0.171	1.000

## TECHNICAL 8 OUTPUT

### TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.051	73
200	1.031	73
300	1.009	51
400	1.014	43

500	1.012	43
600	1.009	43
700	1.004	43
800	1.007	73
900	1.004	73
1000	1.008	73

Effects of combined practices and a smaller set of practices

SUMMARY OF DATA

Number of clusters

58

Size (s)      Cluster ID with Size s

7	22
16	166
23	80 71 205
25	74
27	192
31	65
32	106
35	228
37	170 72
39	50 75 181
40	182
42	165
44	114
45	173
46	107
47	169 30
48	226 81
49	36
50	116 108 40
56	162 84
57	61
59	206 93 83
60	92
61	69
63	6
64	152
65	145
66	4
68	68
69	154
72	174
78	98
84	178 2
95	156 202
96	144
108	142



131	122
172	24
175	209
224	204
269	125
364	217
738	110
860	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 8

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	0.947	0.947	0.947	0.947	0.947
KES15	0.922	0.922	0.922	0.922	0.922
CHOICE15	0.915	0.915	0.915	0.915	0.915
BULLY15	0.915	0.915	0.915	0.915	0.915
PRESS15	0.915	0.915	0.915	0.915	0.915
DUTIES15	0.915	0.915	0.915	0.915	0.915

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	0.922				
CHOICE15	0.915	0.915			
BULLY15	0.915	0.915	0.915		
PRESS15	0.915	0.915	0.914	0.915	

DUTIES15      0.915      0.915      0.915      0.915      0.915

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

PHYCAT16  
 Category 1    0.881      4884.000  
 Category 2    0.119      662.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACC	0.466	0.138	0.000	53.45%	0.000	0.000	0.000
58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL	43.091	0.291	0.000	22.41%	0.000	15.000	35.000

	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	-0.546	-0.632	36.83%	-0.632	0.368	0.368
	5254.000	0.233	-1.702	0.368	63.17%	0.368	0.368	
KES15		0.000	1.717	-0.511	21.65%	-0.511	-0.178	-0.178
	5114.000	0.289	3.835	3.489	0.04%	-0.011	0.322	
CHOICE15		0.000	-0.402	-2.225	7.41%	-1.225	-0.225	-0.225
	5077.000	1.081	-0.336	1.775	8.49%	0.775	0.775	
BULLY15		0.000	3.272	-0.170	87.25%	-0.170	-0.170	-0.170
	5073.000	0.239	11.772	3.830	0.08%	-0.170	-0.170	
PRESS15		0.000	0.252	-1.462	19.10%	-0.462	-0.462	-0.462
	5074.000	1.001	-0.371	2.538	2.76%	0.538	0.538	
DUTIES15		0.000	-1.246	-3.120	2.40%	-0.120	-0.120	-0.120
	5077.000	0.861	1.673	0.880	38.74%	-0.120	0.880	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 83

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-26.520 68.822

Posterior Predictive P-Value 0.231

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

PHYCAT16	ON					
PHY15		0.972	0.068	0.000	0.841	1.109 *
CHOICE15		-0.069	0.025	0.003	-0.116	-0.021 *
BULLY15		0.030	0.050	0.276	-0.068	0.127
DUTIES15		-0.031	0.028	0.142	-0.084	0.024
PRESS15		-0.033	0.026	0.107	-0.086	0.019
KES15		0.226	0.044	0.000	0.139	0.313 *
KES15	WITH					
PHY15		0.051	0.004	0.000	0.044	0.059 *
CHOICE15		-0.089	0.008	0.000	-0.105	-0.073 *
BULLY15		0.057	0.004	0.000	0.050	0.065 *
PRESS15		0.100	0.008	0.000	0.085	0.116 *
DUTIES15		-0.106	0.007	0.000	-0.120	-0.092 *
PHY15	WITH					
CHOICE15		-0.036	0.007	0.000	-0.050	-0.022 *
BULLY15		0.012	0.003	0.000	0.005	0.018 *
PRESS15		0.039	0.007	0.000	0.025	0.052 *
DUTIES15		-0.036	0.006	0.000	-0.049	-0.024 *
CHOICE15	WITH					
BULLY15		-0.058	0.007	0.000	-0.072	-0.044 *
PRESS15		-0.087	0.015	0.000	-0.116	-0.059 *
DUTIES15		0.173	0.014	0.000	0.146	0.200 *
BULLY15	WITH					
PRESS15		0.105	0.007	0.000	0.091	0.118 *
DUTIES15		-0.078	0.006	0.000	-0.091	-0.065 *
PRESS15	WITH					
DUTIES15		-0.186	0.013	0.000	-0.212	-0.160 *
Means						
PHY15		0.002	0.007	0.369	-0.011	0.015
KES15		0.001	0.007	0.425	-0.013	0.016
CHOICE15		-0.002	0.015	0.445	-0.030	0.027
BULLY15		0.001	0.007	0.458	-0.013	0.014
PRESS15		0.001	0.014	0.473	-0.027	0.028
DUTIES15		-0.001	0.013	0.466	-0.027	0.024
Variances						
PHY15		0.233	0.005	0.000	0.225	0.242 *
KES15		0.290	0.006	0.000	0.278	0.301 *

CHOICE15	1.081	0.022	0.000	1.041	1.126	*
BULLY15	0.239	0.005	0.000	0.230	0.248	*
PRESS15	1.001	0.020	0.000	0.964	1.041	*
DUTIES15	0.861	0.017	0.000	0.829	0.895	*

Between Level

PROG	BY					
ACC		1.000	0.000	0.000	1.000	1.000
ACT		3.562	0.856	0.000	2.086	5.457 *
EAT		4.421	0.843	0.000	3.067	6.356 *
ALC		2.752	0.849	0.000	1.354	4.710 *
PHY		3.648	0.885	0.000	2.122	5.622 *
PSY		3.600	0.931	0.000	1.936	5.646 *
SMO		4.579	1.015	0.000	2.961	6.914 *
TER		3.339	0.863	0.000	1.893	5.298 *
BEN		2.290	0.753	0.000	1.016	3.984 *
HPR		3.983	0.998	0.000	2.212	6.148 *
SPR		4.025	0.838	0.000	2.697	5.966 *
CUL		3.143	1.049	0.000	1.169	5.332 *
FEL		76.382	33.704	0.008	14.673	148.798 *

SING	BY					
ACT		1.000	0.000	0.000	1.000	1.000
PHY		0.788	0.856	0.185	-1.390	2.043
PSY		1.346	1.189	0.179	-1.880	2.622
HPR		1.430	1.223	0.175	-1.897	2.725
CUL		2.038	1.818	0.179	-2.927	3.665
FEL		11.448	31.538	0.350	-53.874	70.814

PHYCAT16	ON					
PROG		-0.431	0.226	0.018	-0.926	-0.028 *
SING		-0.169	0.229	0.221	-0.563	0.375

PROG	WITH					
SING		0.000	0.018	0.491	-0.037	0.036

Intercepts						
ACC		0.467	0.074	0.000	0.320	0.610 *
ACT		0.124	0.149	0.195	-0.174	0.412
EAT		0.318	0.152	0.017	0.026	0.619 *
ALC		0.053	0.154	0.371	-0.251	0.355
PHY		0.207	0.150	0.078	-0.085	0.502
PSY		0.102	0.150	0.239	-0.192	0.395

SMO	0.327	0.185	0.040	-0.039	0.687	
TER	0.189	0.155	0.105	-0.114	0.498	
BEN	0.052	0.135	0.347	-0.214	0.316	
HPR	0.233	0.156	0.063	-0.073	0.544	
SPR	0.223	0.153	0.071	-0.072	0.524	
CUL	0.024	0.144	0.432	-0.255	0.310	
FEL	43.175	5.784	0.000	31.809	54.323	*
Thresholds						
PHYCAT16\$1	1.335	0.040	0.000	1.259	1.419	*
Variances						
PROG	0.056	0.018	0.000	0.033	0.101	*
SING	0.086	0.036	0.000	0.045	0.188	*
Residual Variances						
PHYCAT16	0.013	0.012	0.000	0.000	0.045	*
ACC	0.255	0.052	0.000	0.180	0.382	*
ACT	0.466	0.113	0.000	0.291	0.736	*
EAT	0.233	0.075	0.000	0.118	0.409	*
ALC	0.901	0.189	0.000	0.623	1.359	*
PHY	0.467	0.109	0.000	0.308	0.727	*
PSY	0.374	0.096	0.000	0.226	0.597	*
SMO	0.734	0.169	0.000	0.485	1.134	*
TER	0.725	0.159	0.000	0.486	1.098	*
BEN	0.740	0.156	0.000	0.513	1.118	*
HPR	0.338	0.091	0.000	0.186	0.547	*
SPR	0.402	0.100	0.000	0.253	0.637	*
CUL	0.247	0.121	0.000	0.025	0.500	*
FEL	1475.781	306.551	0.000	1022.711	2216.790	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Posterior	One-Tailed	95% C.I.		Significance
		S.D.	P-Value	Lower 2.5%	Upper 2.5%	
Within Level						
PHYCAT16 ON						
PHY15	0.416	0.024	0.000	0.367	0.462	*
CHOICE15	-0.063	0.023	0.003	-0.107	-0.019	*

BULLY15	0.013	0.021	0.276	-0.029	0.055	
DUTIES15	-0.025	0.023	0.142	-0.069	0.020	
PRESS15	-0.029	0.023	0.107	-0.076	0.017	
KES15	0.108	0.021	0.000	0.066	0.148	*
KES15 WITH						
PHY15	0.198	0.013	0.000	0.171	0.224	*
CHOICE15	-0.159	0.014	0.000	-0.185	-0.132	*
BULLY15	0.219	0.013	0.000	0.192	0.245	*
PRESS15	0.186	0.014	0.000	0.159	0.212	*
DUTIES15	-0.212	0.013	0.000	-0.238	-0.185	*
PHY15 WITH						
CHOICE15	-0.072	0.014	0.000	-0.100	-0.045	*
BULLY15	0.050	0.014	0.000	0.022	0.078	*
PRESS15	0.080	0.014	0.000	0.053	0.108	*
DUTIES15	-0.081	0.014	0.000	-0.109	-0.054	*
CHOICE15 WITH						
BULLY15	-0.114	0.014	0.000	-0.142	-0.087	*
PRESS15	-0.084	0.014	0.000	-0.111	-0.057	*
DUTIES15	0.179	0.014	0.000	0.152	0.206	*
BULLY15 WITH						
PRESS15	0.214	0.013	0.000	0.188	0.240	*
DUTIES15	-0.172	0.014	0.000	-0.198	-0.145	*
PRESS15 WITH						
DUTIES15	-0.200	0.013	0.000	-0.226	-0.174	*
Means						
PHY15	0.004	0.014	0.369	-0.022	0.032	
KES15	0.003	0.014	0.425	-0.024	0.030	
CHOICE15	-0.002	0.014	0.445	-0.029	0.026	
BULLY15	0.002	0.014	0.458	-0.026	0.029	
PRESS15	0.001	0.014	0.473	-0.027	0.028	
DUTIES15	-0.001	0.014	0.466	-0.029	0.026	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	



DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PROG	BY					
ACC		0.423	0.059	0.000	0.318	0.549 *
ACT		0.750	0.098	0.000	0.527	0.912 *
EAT		0.909	0.038	0.000	0.816	0.961 *
ALC		0.569	0.112	0.000	0.309	0.747 *
PHY		0.760	0.100	0.000	0.511	0.910 *
PSY		0.757	0.120	0.000	0.475	0.949 *
SMO		0.785	0.066	0.000	0.628	0.884 *
TER		0.684	0.093	0.000	0.460	0.821 *
BEN		0.535	0.120	0.000	0.262	0.725 *
HPR		0.793	0.117	0.000	0.518	0.974 *
SPR		0.835	0.056	0.000	0.700	0.913 *
CUL		0.679	0.173	0.000	0.281	0.969 *
FEL		0.417	0.148	0.008	0.084	0.663 *
SING	BY					
ACT		0.261	0.054	0.000	0.178	0.393 *
PHY		0.208	0.211	0.185	-0.331	0.495
PSY		0.358	0.291	0.179	-0.443	0.612
HPR		0.360	0.287	0.175	-0.425	0.619
CUL		0.566	0.455	0.179	-0.697	0.845
FEL		0.078	0.201	0.350	-0.355	0.440
PHYCAT16	ON					
PROG		-0.616	0.240	0.018	-0.966	-0.042 *
SING		-0.304	0.359	0.221	-0.818	0.587
PROG	WITH					
SING		-0.006	0.224	0.491	-0.439	0.429
Intercepts						
ACC		0.831	0.148	0.000	0.544	1.119 *
ACT		0.110	0.131	0.195	-0.152	0.361
EAT		0.276	0.134	0.017	0.020	0.542 *
ALC		0.046	0.131	0.371	-0.210	0.298
PHY		0.182	0.131	0.078	-0.073	0.444
PSY		0.089	0.130	0.239	-0.165	0.345
SMO		0.234	0.134	0.040	-0.027	0.496
TER		0.162	0.131	0.105	-0.094	0.425
BEN		0.051	0.130	0.347	-0.204	0.300

HPR	0.194	0.130	0.063	-0.057	0.453	
SPR	0.193	0.132	0.071	-0.059	0.461	
CUL	0.022	0.128	0.432	-0.225	0.276	
FEL	0.983	0.164	0.000	0.667	1.303	*
Thresholds						
PHYCAT16\$1	7.623	2.669	0.000	4.751	14.791	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	
SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
PHYCAT16	0.424	0.230	0.000	0.028	0.884	*
ACC	0.821	0.051	0.000	0.699	0.899	*
ACT	0.368	0.096	0.000	0.208	0.586	*
EAT	0.173	0.067	0.000	0.077	0.333	*
ALC	0.676	0.119	0.000	0.441	0.904	*
PHY	0.359	0.094	0.000	0.210	0.571	*
PSY	0.290	0.086	0.000	0.152	0.489	*
SMO	0.383	0.100	0.000	0.218	0.605	*
TER	0.532	0.119	0.000	0.327	0.788	*
BEN	0.714	0.120	0.000	0.475	0.931	*
HPR	0.234	0.075	0.000	0.117	0.408	*
SPR	0.303	0.090	0.000	0.166	0.509	*
CUL	0.203	0.108	0.000	0.019	0.442	*
FEL	0.782	0.110	0.000	0.542	0.960	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.217	0.021	0.000	0.177	0.259

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
PHYCAT16	0.576	0.230	0.000	0.116	0.972

ACC	0.179	0.051	0.000	0.101	0.301
ACT	0.632	0.096	0.000	0.414	0.792
EAT	0.827	0.067	0.000	0.667	0.923
ALC	0.324	0.119	0.000	0.096	0.559
PHY	0.641	0.094	0.000	0.429	0.790
PSY	0.710	0.086	0.000	0.511	0.848
SMO	0.617	0.100	0.000	0.395	0.782
TER	0.468	0.119	0.000	0.212	0.673
BEN	0.286	0.120	0.000	0.069	0.525
HPR	0.766	0.075	0.000	0.592	0.883
SPR	0.697	0.090	0.000	0.491	0.834
CUL	0.797	0.108	0.000	0.558	0.981
FEL	0.218	0.110	0.000	0.040	0.458

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

PHYCAT16

0

NU

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

PHYCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PHYCAT16

PHY15

KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA

PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
0	1	2	3	4

ALPHA		
PRESS15		DUTIES15
<hr/>	<hr/>	<hr/>
5		6

BETA					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
PRESS15		DUTIES15
<hr/>	<hr/>	<hr/>
PHYCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
PHYCAT16		PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
PRESS15		DUTIES15

PRESS15	<u>27</u>	<u>33</u>
DUTIES15	32	

PARAMETER SPECIFICATION FOR BETWEEN

TAU	
PHYCAT16	
<u>83</u>	

NU	PHYCAT16	ACC	ACT	EAT	ALC
	<u>0</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>38</u>	<u>39</u>	<u>40</u>	<u>41</u>	<u>42</u>

NU	HPR	SPR	CUL	FEL
	<u>43</u>	<u>44</u>	<u>45</u>	<u>46</u>

	LAMBDA		
	PROG	SING	PHYCAT16
PHYCAT16	<u>0</u>	<u>0</u>	<u>0</u>
ACC	0	0	0
ACT	47	0	0
EAT	48	0	0
ALC	49	0	0
PHY	50	51	0
PSY	52	53	0
SMO	54	0	0
TER	55	0	0

BEN	56	0	0
HPR	57	58	0
SPR	59	0	0
CUL	60	61	0
FEL	62	63	0

THETA		PHYCAT16		ACC	ACT	EAT	ALC
PHYCAT16		0					
ACC		0	64				
ACT		0	0	65			
EAT		0	0	0	66		
ALC		0	0	0	0	67	
PHY		0	0	0	0	0	
PSY		0	0	0	0	0	
SMO		0	0	0	0	0	
TER		0	0	0	0	0	
BEN		0	0	0	0	0	
HPR		0	0	0	0	0	
SPR		0	0	0	0	0	
CUL		0	0	0	0	0	
FEL		0	0	0	0	0	

THETA		PHY		PSY	SMO	TER	BEN
PHY		68					
PSY		0	69				
SMO		0	0	70			
TER		0	0	0	71		
BEN		0	0	0	0	72	
HPR		0	0	0	0	0	
SPR		0	0	0	0	0	
CUL		0	0	0	0	0	
FEL		0	0	0	0	0	

THETA		HPR		SPR	CUL	FEL
HPR		73				

SPR	0	74		
CUL	0	0	75	
FEL	0	0	0	76

ALPHA			
PROG		SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
	0	0	0

	BETA		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	0	0	0
SING	0	0	0
PHYCAT16	77	78	0

	PSI		
	PROG	SING	PHYCAT16
	<hr/>	<hr/>	<hr/>
PROG	79		
SING	80	81	
PHYCAT16	0	0	82

STARTING VALUES FOR WITHIN

TAU
PHYCAT16
<hr/>
0.000

NU				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15



<u>0.000</u>	<u>0.000</u>
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LAMBDA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA

	PRESS15	DUTIES15
PHYCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
PHYCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	

DUTIES15	0.000	0.000
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ALPHA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PHYCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	0.000
DUTIES15	0.000

PSI				
PHYCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
PHYCAT16	1.000			
PHY15	0.000	0.116		

KES15	0.000	0.000	0.145		
CHOICE15	0.000	0.000	0.000	0.541	
BULLY15	0.000	0.000	0.000	0.000	0.119
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
PRESS15	DUTIES15
PRESS15	0.501
DUTIES15	0.000
	0.430

STARTING VALUES FOR BETWEEN

TAU
PHYCAT16
1.110

NU	PHYCAT16	ACC	ACT	EAT	ALC
	0.000	0.485	0.224	0.466	0.673

NU	PHY	PSY	SMO	TER	BEN
	0.342	0.251	0.347	0.385	0.212

NU	HPR	SPR	CUL	FEL
	0.409	0.433	-0.067	45.726

LAMBDA		
PROG	SING	PHYCAT16

PHYCAT16	0.000	0.000	1.000
ACC	1.000	0.000	0.000
ACT	1.000	1.000	0.000
EAT	1.000	0.000	0.000
ALC	1.000	0.000	0.000
PHY	1.000	1.000	0.000
PSY	1.000	1.000	0.000
SMO	1.000	0.000	0.000
TER	1.000	0.000	0.000
BEN	1.000	0.000	0.000
HPR	1.000	1.000	0.000
SPR	1.000	0.000	0.000
CUL	1.000	1.000	0.000
FEL	1.000	1.000	0.000

THETA					
	PHYCAT16	ACC	ACT	EAT	ALC
PHYCAT16	0.000				
ACC	0.000	0.125			
ACT	0.000	0.000	0.433		
EAT	0.000	0.000	0.000	0.381	
ALC	0.000	0.000	0.000	0.000	0.657
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	0.338				
PSY	0.000	0.496			
SMO	0.000	0.000	0.608		
TER	0.000	0.000	0.000	0.678	
BEN	0.000	0.000	0.000	0.000	0.347
HPR	0.000	0.000	0.000	0.000	0.000

SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

	THETA			
	HPR	SPR	CUL	FEL
HPR	0.426			
SPR	0.000	0.361		
CUL	0.000	0.000	0.362	
FEL	0.000	0.000	0.000	698.403

	ALPHA		
	PROG	SING	PHYCAT16
	0.000	0.000	0.000

	BETA		
	PROG	SING	PHYCAT16
PROG	0.000	0.000	0.000
SING	0.000	0.000	0.000
PHYCAT16	0.000	0.000	0.000

	PSI		
	PROG	SING	PHYCAT16
PROG	1.000		
SING	0.000	1.000	
PHYCAT16	0.000	0.000	1.000

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 37~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 38~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 39~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 40~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 41~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 42~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 43~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 44~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 45~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 46~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 47~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 48~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 49~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 50~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 51~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 52~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 53~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 54~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 55~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 56~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 57~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 58~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 59~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 60~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 61~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 62~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 63~N(0.000, infinity)	0.0000	infinity	infinity
Parameter 64~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 65~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 66~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 67~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 68~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 69~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 70~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 71~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 72~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 73~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 74~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 75~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 76~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 77~N(0.000, 5.000)	0.0000	5.0000	2.2361
Parameter 78~N(0.000, 5.000)	0.0000	5.0000	2.2361
Parameter 79~IW(1.000, 3)	infinity	infinity	infinity
Parameter 80~IW(0.000, 3)	infinity	infinity	infinity
Parameter 81~IW(1.000, 3)	infinity	infinity	infinity
Parameter 82~IG(-1.000, 0.000)	infinity	infinity	infinity
Parameter 83~N(0.000, 5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	0.448723D-04				
2	0.995446D-05	0.558142D-04			

3	-0.647903D-05	-0.174816D-04	0.213115D-03		
4	0.218755D-05	0.118492D-04	-0.128173D-04	0.481501D-04	
5	0.533376D-05	0.203638D-04	-0.176601D-04	0.214598D-04	0.198058D-03
6	-0.669669D-05	-0.207004D-04	0.336331D-04	-0.155631D-04	-0.352554D-04
7	0.878829D-05	-0.153822D-04	0.938590D-05	0.910380D-05	-0.197668D-04
8	0.427499D-05	0.278206D-05	0.281147D-05	-0.303291D-05	0.198528D-05
9	-0.133070D-05	-0.380709D-05	0.191597D-04	-0.456844D-06	-0.624855D-05
10	0.163370D-06	-0.149750D-05	0.336945D-05	0.434322D-05	0.568949D-05
11	-0.808801D-07	-0.336469D-05	0.887494D-05	-0.177275D-07	0.133026D-05
12	0.893306D-06	0.130150D-05	-0.258898D-06	-0.548086D-06	0.199967D-05
13	-0.294397D-06	0.152126D-06	0.150303D-05	-0.465962D-06	-0.158536D-06
14	0.324311D-06	-0.247979D-06	0.133613D-06	0.526369D-07	-0.186928D-06
15	0.165378D-05	-0.252033D-06	-0.102821D-05	0.157377D-06	0.100594D-06
16	-0.143244D-06	0.572664D-06	0.201216D-05	0.958233D-07	0.201693D-06
17	-0.259762D-06	-0.318123D-06	0.396031D-05	-0.203955D-06	0.776162D-06
18	0.184498D-05	0.133080D-05	-0.372872D-05	0.359668D-08	-0.148790D-05
19	-0.146724D-06	-0.564163D-06	0.996031D-06	0.164594D-06	-0.125008D-06
20	0.312457D-06	-0.402117D-07	-0.322546D-06	0.237196D-06	0.612167D-06
21	-0.244824D-06	-0.306357D-06	0.485835D-06	0.294327D-06	-0.142655D-06
22	0.151230D-07	0.169013D-07	-0.785170D-06	-0.267773D-07	0.109645D-07
23	-0.944570D-07	-0.427663D-06	-0.505140D-06	0.145233D-07	-0.698880D-06
24	0.137993D-05	0.332271D-07	-0.378048D-06	0.457157D-06	0.120116D-06
25	0.536114D-07	-0.724375D-06	0.197896D-05	-0.104851D-05	-0.159431D-05
26	-0.648843D-06	-0.822467D-06	-0.646085D-06	-0.177031D-06	0.150776D-05
27	0.732562D-07	-0.593152D-06	-0.367810D-05	-0.929673D-06	0.114864D-05
28	-0.726920D-06	-0.162803D-06	0.788159D-07	0.950830D-06	0.108552D-05
29	-0.265359D-07	0.768760D-06	0.574932D-06	-0.126127D-05	-0.171608D-05
30	0.193008D-05	-0.403502D-06	-0.262369D-05	-0.695506D-06	-0.956492D-06
31	0.615649D-06	-0.302723D-06	-0.109261D-05	0.555565D-07	0.417136D-06
32	0.776382D-06	0.257690D-05	-0.323702D-05	0.544711D-06	-0.936415D-06
33	-0.190053D-05	-0.146939D-05	0.638465D-05	-0.205019D-05	-0.431082D-05
34	-0.491817D-05	0.114823D-04	0.998490D-05	-0.669861D-06	-0.534072D-05
35	-0.131680D-04	0.190475D-04	-0.499442D-06	0.117081D-04	0.902831D-05
36	-0.148283D-04	0.119995D-04	-0.361594D-05	0.761788D-05	-0.226302D-05
37	-0.210213D-04	0.139568D-04	-0.142125D-04	0.144003D-04	-0.411269D-05
38	-0.177600D-04	0.125184D-04	-0.154961D-04	0.955612D-05	0.141257D-04
39	-0.217998D-04	0.182830D-04	0.373986D-06	0.105271D-04	0.231963D-04
40	-0.593957D-05	0.235200D-04	0.106340D-04	0.274918D-05	0.527317D-05
41	-0.153057D-04	-0.106720D-05	-0.102755D-04	0.626693D-05	0.177819D-04
42	-0.286294D-05	0.120792D-04	-0.171087D-04	-0.438811D-05	0.396137D-04
43	-0.143532D-04	0.118814D-04	0.340402D-05	0.229767D-04	0.111146D-04
44	-0.280829D-04	0.146730D-04	0.127898D-04	0.224749D-04	-0.304229D-05
45	-0.581804D-05	0.176215D-04	0.126236D-04	0.813888D-05	0.224156D-04
46	-0.682607D-03	-0.350036D-03	-0.894077D-03	0.618728D-03	-0.925949D-04



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47 -0.105025D-04 -0.500675D-04 -0.187596D-04 0.275417D-04 0.183534D-03
48 -0.474356D-05 -0.102052D-03 -0.136363D-03 0.445890D-04 -0.217560D-03
49 0.791774D-04 -0.149435D-03 -0.153053D-03 -0.591511D-04 -0.132484D-03
50 -0.310688D-04 -0.865827D-04 -0.510592D-04 0.577083D-04 0.649640D-04
51 0.174586D-04 0.938856D-05 -0.780793D-04 0.339321D-04 -0.128298D-03
52 0.710098D-04 -0.785218D-04 -0.201125D-03 0.772143D-04 0.927992D-04
53 -0.323638D-05 0.444329D-04 -0.101496D-03 0.318188D-04 0.120592D-03
54 0.851850D-04 -0.612637D-04 -0.162667D-03 0.309266D-04 -0.458966D-04
55 -0.176306D-04 -0.908743D-04 0.666031D-04 0.545596D-04 -0.118112D-03
56 0.164986D-04 0.373070D-04 -0.124951D-03 0.848320D-05 0.942514D-04
57 0.542346D-04 -0.918370D-04 -0.755275D-04 0.888991D-04 0.167527D-03
58 0.891339D-04 0.114043D-03 -0.169956D-03 0.169172D-04 0.147839D-03
59 -0.192261D-04 -0.500781D-04 -0.711842D-04 0.872900D-04 -0.773091D-04
60 0.719748D-04 -0.269397D-05 -0.156408D-03 0.684929D-04 0.309116D-03
61 0.541905D-04 0.885225D-04 -0.735826D-04 -0.855167D-04 -0.611389D-05
62 -0.249252D-02 -0.552044D-02 0.590123D-02 -0.103428D-02 -0.167279D-03
63 0.181561D-02 0.854751D-03 -0.349271D-02 -0.826138D-03 0.914324D-02
64 -0.360252D-05 -0.476647D-05 -0.334199D-05 -0.713593D-05 -0.928429D-05
65 -0.122528D-05 0.100390D-04 -0.137160D-04 0.161283D-04 0.246779D-04
66 -0.332858D-06 -0.101475D-04 0.812750D-05 -0.969361D-05 -0.292026D-05
67 -0.804990D-05 0.940568D-05 0.706983D-04 -0.205665D-04 0.275425D-05
68 0.818460D-05 0.625308D-05 0.172248D-04 -0.177618D-04 0.230460D-05
69 0.758778D-05 0.118640D-04 -0.143106D-04 -0.516648D-05 0.152509D-04
70 0.763874D-05 -0.439665D-05 -0.773701D-04 -0.162596D-04 0.175612D-04
71 0.546583D-05 -0.454860D-04 0.650591D-05 -0.908635D-05 -0.666064D-05
72 -0.364453D-05 -0.205353D-04 0.252489D-04 -0.113744D-04 -0.352795D-04
73 -0.112285D-05 -0.442223D-05 -0.362655D-05 -0.403708D-05 -0.140167D-04
74 0.117195D-04 0.454574D-05 0.947939D-05 -0.130831D-04 -0.320496D-05
75 0.456784D-05 -0.344593D-05 -0.220550D-04 0.165145D-04 0.110473D-04
76 0.194263D-01 0.186233D-02 0.227658D-01 -0.453296D-01 0.213265D-01
77 -0.217890D-04 0.175194D-04 -0.579244D-05 -0.756760D-05 -0.382881D-04
78 0.856713D-05 0.755703D-05 0.216375D-04 0.396186D-05 0.151969D-04
79 -0.274775D-05 0.575322D-06 0.383182D-05 -0.539543D-06 0.181011D-05
80 0.235544D-06 0.757733D-06 -0.364694D-05 -0.296763D-06 -0.652435D-05
81 0.860942D-06 0.402409D-05 -0.645583D-05 -0.194789D-05 0.933356D-07
82 -0.582758D-06 0.103797D-05 0.200942D-05 -0.439478D-06 0.224807D-05
83 0.415328D-06 -0.415867D-07 -0.610275D-05 0.204763D-05 -0.304144D-05

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ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.170130D-03				
7	0.670333D-05	0.469122D-02			

8	0.109497D-04	-0.257314D-03	0.193159D-02		
9	0.305133D-05	-0.108731D-04	0.117938D-03	0.612021D-03	
10	0.144203D-05	-0.568869D-04	-0.378935D-03	0.483519D-04	0.246901D-02
11	0.887740D-07	-0.257739D-04	-0.169884D-03	0.224544D-04	-0.223271D-03
12	0.303527D-05	0.597960D-04	0.147090D-03	-0.869319D-04	0.113786D-03
13	-0.561878D-06	0.206321D-05	-0.525573D-05	0.135664D-05	0.530833D-06
14	-0.986614D-06	-0.158152D-05	-0.144469D-05	0.526028D-06	-0.506998D-06
15	-0.174857D-05	-0.345037D-05	0.156163D-05	0.194504D-05	-0.309747D-05
16	0.984326D-06	-0.262771D-05	-0.519775D-06	0.104325D-05	0.263143D-05
17	-0.823452D-06	-0.602750D-06	-0.294879D-05	-0.115408D-05	0.275397D-06
18	-0.666568D-06	-0.661828D-06	0.116016D-04	-0.181711D-04	0.559206D-05
19	-0.259467D-06	-0.213819D-05	-0.258283D-05	0.133627D-06	-0.157700D-05
20	-0.549545D-06	-0.978690D-07	0.214257D-05	0.109075D-05	-0.316753D-05
21	-0.314258D-05	-0.377946D-06	-0.476856D-05	0.160672D-05	-0.350282D-05
22	0.729990D-07	-0.249840D-05	0.108910D-05	0.142924D-05	-0.278264D-06
23	0.246835D-06	0.737214D-05	-0.506847D-05	0.193194D-05	-0.314179D-05
24	-0.819473D-06	-0.153323D-05	-0.645387D-07	0.563487D-05	0.403467D-05
25	-0.323291D-05	0.561525D-05	-0.151768D-04	-0.316675D-05	-0.440192D-05
26	-0.491086D-06	-0.435822D-05	0.452928D-05	0.457848D-05	-0.622099D-06
27	-0.252104D-05	-0.118028D-04	0.325853D-05	0.106001D-04	0.449032D-05
28	-0.137592D-06	-0.511729D-05	0.636469D-05	0.423456D-06	0.411941D-05
29	-0.158982D-06	-0.737639D-05	-0.346071D-05	-0.734484D-06	0.293021D-05
30	-0.542219D-06	-0.491307D-05	0.102307D-04	-0.151919D-05	-0.846910D-05
31	-0.129488D-05	0.154528D-05	0.986052D-06	-0.635697D-06	0.620430D-06
32	-0.137955D-05	-0.110061D-05	-0.490218D-05	-0.289436D-05	-0.453867D-05
33	0.295261D-06	-0.340960D-05	0.564914D-05	0.355236D-05	0.142710D-05
34	0.788673D-05	0.218832D-04	-0.772461D-05	-0.246174D-04	-0.591938D-05
35	0.288239D-04	0.836552D-04	-0.116692D-03	-0.157633D-04	-0.409458D-04
36	0.101387D-04	0.137215D-03	-0.718576D-04	-0.947974D-05	-0.440435D-04
37	0.337628D-04	0.442888D-04	-0.388196D-04	0.232636D-04	-0.155368D-04
38	0.141071D-04	0.196240D-03	-0.199869D-03	-0.588490D-04	0.476555D-04
39	-0.681789D-05	0.236667D-04	-0.145685D-03	-0.186365D-04	0.611065D-04
40	0.265762D-04	0.151435D-03	-0.149340D-03	-0.361057D-04	-0.200098D-04
41	0.150981D-04	0.202844D-03	-0.517480D-04	-0.588318D-05	0.791749D-04
42	0.138785D-04	-0.101486D-03	-0.474418D-04	0.132841D-04	-0.778058D-04
43	0.143910D-04	0.144100D-03	-0.209215D-03	0.860802D-05	0.566092D-04
44	0.816124D-06	-0.300850D-04	-0.122620D-03	-0.106230D-04	0.918315D-04
45	0.113814D-04	-0.930053D-05	-0.157402D-03	-0.507684D-04	0.758198D-04
46	0.279170D-03	-0.488549D-02	0.345399D-03	0.107445D-04	0.399830D-02
47	0.166690D-04	0.526284D-03	0.440573D-03	0.101970D-03	-0.261359D-03
48	-0.117784D-03	-0.317100D-03	0.323808D-03	0.211397D-03	-0.318243D-03
49	0.211358D-04	0.710028D-03	0.616834D-03	-0.187615D-03	-0.913521D-03
50	0.921100D-04	-0.388020D-03	0.853476D-03	-0.173918D-04	-0.322070D-03
51	-0.121985D-04	0.334315D-03	0.901396D-03	0.240228D-03	-0.556578D-03

52	-0.223564D-04	-0.259781D-03	0.346237D-03	0.706505D-05	-0.196594D-03
53	-0.826719D-04	-0.111129D-02	0.146798D-02	0.295835D-03	0.943355D-04
54	-0.741475D-04	-0.615997D-04	0.236692D-03	-0.233594D-03	-0.233019D-03
55	0.131731D-04	0.447213D-03	-0.277604D-03	-0.135708D-03	-0.191153D-03
56	0.123762D-04	0.967920D-03	-0.105117D-03	-0.208892D-03	-0.119676D-03
57	-0.116952D-03	0.504241D-03	0.101927D-02	-0.319065D-04	-0.402735D-03
58	-0.821783D-04	-0.828819D-03	0.126030D-02	0.478295D-04	-0.776298D-03
59	-0.507508D-04	-0.503874D-04	0.981534D-03	0.714382D-04	-0.109122D-03
60	0.297287D-04	-0.291591D-03	0.821602D-03	-0.422345D-03	-0.258050D-03
61	-0.117319D-03	-0.160505D-02	0.174800D-02	0.328409D-03	-0.679720D-03
62	0.253297D-03	-0.240758D-01	0.141179D-01	0.148011D-01	0.104532D-01
63	-0.419194D-02	-0.654931D-02	0.247608D-01	0.834666D-02	-0.279424D-01
64	0.237634D-06	-0.555618D-05	-0.272566D-04	-0.616766D-05	0.433254D-04
65	-0.956029D-05	0.120491D-04	0.715417D-04	-0.393369D-04	-0.806910D-04
66	0.180287D-04	0.168576D-05	0.258069D-04	-0.588432D-04	-0.318601D-04
67	-0.175996D-04	-0.469761D-04	-0.375305D-04	-0.610936D-04	0.156378D-04
68	0.223792D-04	0.654068D-04	0.391347D-04	0.233966D-05	0.102799D-03
69	-0.198240D-04	0.194224D-04	-0.959528D-04	-0.248847D-04	-0.349159D-04
70	0.301598D-05	-0.323583D-03	0.199061D-04	0.300462D-05	0.838282D-04
71	-0.129431D-04	-0.215715D-03	0.610400D-04	0.292974D-05	-0.231892D-03
72	-0.238431D-04	0.116312D-03	-0.145085D-03	-0.975294D-05	0.135329D-04
73	-0.239354D-04	0.192525D-04	-0.279873D-04	0.209871D-04	0.312216D-04
74	-0.329202D-04	0.665762D-04	0.343134D-04	-0.338304D-04	0.239105D-04
75	0.668520D-05	-0.731222D-05	0.148578D-03	0.283616D-04	0.762328D-04
76	0.581248D-01	0.389634D+00	0.660574D-01	-0.550639D-02	-0.668235D-01
77	0.504125D-04	-0.216724D-03	0.803730D-05	-0.727732D-04	-0.209085D-03
78	0.165765D-04	0.515722D-04	-0.404854D-03	-0.108505D-03	0.764554D-04
79	-0.206135D-05	-0.247885D-05	-0.574835D-05	0.128600D-05	-0.267539D-05
80	-0.133332D-05	0.253687D-04	-0.116880D-04	-0.320074D-05	0.591346D-05
81	0.797554D-05	-0.252677D-04	0.783068D-05	-0.998223D-05	0.153339D-04
82	-0.449634D-05	0.201272D-04	0.698721D-06	-0.297296D-05	-0.879728D-05
83	0.858678D-05	0.100195D-02	0.106356D-03	-0.295005D-04	-0.327081D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.697299D-03				
12	0.101435D-03	0.774136D-03			
13	-0.514848D-06	-0.111066D-05	0.205831D-04		
14	0.173886D-05	0.475208D-06	0.441019D-05	0.136580D-04	
15	-0.448300D-07	-0.167587D-05	0.990821D-06	0.587319D-05	0.335846D-04
16	0.377818D-06	0.233864D-05	-0.303726D-05	-0.453582D-05	-0.161855D-05
17	-0.231583D-06	0.192128D-06	-0.500194D-06	-0.350080D-05	-0.975471D-05

18	-0.155505D-04	0.255238D-05	0.836725D-06	0.812301D-06	0.224423D-05
19	0.170841D-05	-0.289970D-06	0.917697D-06	0.289246D-05	0.122864D-05
20	-0.856406D-06	-0.341651D-06	0.179731D-06	0.119024D-05	0.661162D-05
21	-0.163788D-06	-0.294918D-05	-0.697544D-06	-0.943981D-06	-0.276628D-05
22	-0.155067D-05	-0.253721D-05	0.614567D-06	0.306478D-06	0.106197D-05
23	0.365580D-05	-0.210190D-05	0.356444D-05	0.435699D-05	0.229251D-05
24	0.255597D-05	-0.417771D-05	0.127041D-05	0.334020D-05	0.118973D-04
25	-0.491311D-05	-0.187668D-05	-0.120681D-05	-0.115034D-05	-0.426727D-05
26	0.116933D-05	-0.127106D-05	0.247657D-06	0.788600D-06	0.285233D-05
27	0.986532D-05	-0.952072D-05	0.165261D-05	0.105692D-05	0.527678D-05
28	-0.520099D-05	0.526299D-06	-0.316135D-05	-0.528209D-05	-0.236879D-05
29	0.155957D-05	0.387546D-05	0.773398D-06	-0.325207D-05	-0.121410D-04
30	0.230767D-05	-0.453984D-05	0.148654D-05	0.253549D-05	0.460313D-05
31	0.150130D-05	0.176583D-05	-0.504290D-06	-0.890918D-06	-0.219529D-05
32	-0.635326D-05	-0.211252D-05	0.552828D-07	-0.205319D-05	-0.388995D-05
33	-0.233535D-05	0.554348D-06	0.201304D-05	0.265577D-05	0.521995D-05
34	-0.407705D-05	0.400680D-04	0.374171D-05	0.461904D-05	-0.521319D-05
35	0.993243D-05	0.176753D-04	-0.725286D-05	-0.269626D-05	0.203266D-04
36	-0.151893D-04	-0.162784D-04	-0.967466D-05	-0.216251D-06	0.720927D-05
37	-0.442271D-04	0.348434D-04	-0.771819D-05	0.125003D-05	0.186111D-04
38	-0.385238D-04	0.921393D-05	-0.144964D-04	-0.851492D-06	0.469774D-05
39	-0.417715D-04	0.696023D-05	-0.158016D-04	-0.952545D-05	0.588760D-05
40	-0.626544D-04	0.992277D-05	-0.138323D-04	-0.177530D-05	-0.401332D-05
41	0.881037D-05	-0.371367D-06	-0.512187D-05	-0.324597D-05	0.169322D-05
42	-0.225765D-04	-0.709465D-04	0.462149D-05	-0.316484D-05	0.337768D-06
43	0.302709D-04	0.465202D-05	-0.811537D-05	-0.440760D-05	-0.592276D-05
44	-0.445054D-04	0.175994D-04	-0.144493D-05	-0.580088D-06	-0.280588D-05
45	0.244459D-05	0.323302D-04	-0.606812D-05	-0.587798D-05	0.459078D-05
46	0.105480D-02	0.164589D-02	0.369240D-04	0.165822D-03	0.163650D-03
47	-0.275344D-03	0.113046D-04	0.190092D-04	0.282099D-04	0.269287D-04
48	0.440319D-04	-0.127729D-03	-0.327185D-04	-0.356523D-04	-0.393191D-04
49	0.180950D-03	0.245674D-03	-0.470846D-04	-0.257504D-04	0.218591D-04
50	0.480406D-04	-0.625121D-04	-0.731786D-04	-0.183203D-04	-0.333121D-04
51	-0.324350D-03	-0.140036D-03	0.448054D-04	-0.806234D-05	0.208144D-04
52	-0.246659D-03	0.106290D-03	-0.657266D-04	-0.723304D-04	-0.463497D-04
53	-0.348079D-03	-0.462127D-03	0.838608D-04	-0.498809D-04	0.635007D-04
54	0.288311D-04	-0.223551D-03	0.561020D-05	-0.112526D-04	-0.397689D-04
55	0.165509D-03	-0.481181D-03	0.117966D-04	-0.580873D-05	-0.277909D-04
56	0.109434D-04	-0.325338D-04	0.119779D-04	-0.464483D-04	0.794454D-05
57	-0.380841D-03	-0.170654D-03	0.120185D-04	-0.870077D-05	0.409479D-05
58	-0.369755D-03	-0.210598D-03	0.487940D-04	-0.685372D-04	-0.139529D-04
59	-0.238120D-03	0.200124D-03	0.229491D-04	0.133873D-04	0.541782D-04
60	-0.483112D-03	0.138138D-03	-0.342499D-04	-0.701531D-04	-0.445012D-04
61	-0.122522D-03	-0.658951D-03	0.758695D-04	-0.106350D-03	0.119545D-03

62	-0.106811D-01	-0.124479D-01	0.217590D-03	-0.138938D-03	0.262293D-02
63	-0.737604D-02	-0.237275D-01	0.129683D-02	-0.544578D-03	-0.165023D-02
64	0.642327D-05	-0.116116D-04	0.176368D-05	0.129613D-05	0.208342D-05
65	0.243435D-04	0.260628D-04	0.162697D-05	-0.355914D-05	-0.945207D-05
66	0.164247D-04	0.215630D-04	-0.192860D-05	0.402356D-05	0.223597D-05
67	0.449757D-04	-0.606643D-04	0.242492D-05	0.574619D-05	0.126605D-04
68	-0.519121D-05	0.219094D-04	0.184870D-05	0.387187D-05	0.831002D-05
69	0.164050D-04	0.262744D-04	-0.200643D-05	-0.422456D-05	-0.675957D-05
70	-0.664831D-04	-0.807186D-05	0.511013D-05	0.111110D-04	0.689646D-05
71	0.513960D-04	-0.252634D-04	0.721118D-05	0.330956D-05	0.229311D-05
72	0.197609D-04	-0.504516D-04	0.819736D-05	-0.471849D-05	-0.136978D-04
73	-0.194210D-04	-0.117665D-04	-0.253944D-05	0.411746D-05	0.667066D-05
74	-0.825535D-05	0.481739D-04	0.247292D-05	-0.596630D-05	-0.146605D-04
75	-0.128086D-03	0.505305D-04	0.211681D-05	0.183189D-04	-0.848490D-05
76	-0.895905D-01	-0.785490D-01	0.444686D-03	-0.110616D-01	-0.148195D-01
77	-0.132544D-03	-0.104919D-03	-0.708088D-06	-0.990141D-05	0.148629D-04
78	0.123072D-03	0.720127D-04	-0.139052D-04	-0.896447D-05	-0.964711D-05
79	-0.207349D-05	0.724871D-05	-0.550048D-06	-0.520496D-07	0.661107D-06
80	0.465907D-05	-0.656089D-05	-0.164322D-06	-0.119813D-05	-0.114413D-05
81	0.345886D-05	0.123632D-04	0.126018D-05	0.194375D-05	0.171753D-05
82	0.112026D-04	0.187703D-05	0.173956D-06	0.134975D-06	0.148342D-06
83	-0.328300D-04	0.767156D-05	-0.724395D-07	-0.876925D-06	0.309733D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.499576D-04				
17	0.118653D-04	0.638078D-04			
18	-0.146984D-04	-0.387605D-04	0.470486D-03		
19	-0.301164D-05	-0.867500D-06	0.938656D-06	0.112112D-04	
20	-0.355400D-06	-0.372940D-05	0.120489D-05	0.239048D-05	0.139819D-04
21	0.247256D-05	0.132069D-04	-0.262022D-04	-0.189028D-05	-0.512677D-05
22	0.577758D-07	-0.888809D-06	0.394567D-06	0.933745D-06	0.548902D-05
23	-0.359423D-05	-0.204793D-05	0.215687D-05	0.486017D-05	0.143449D-05
24	-0.176384D-05	-0.581994D-05	0.434499D-05	0.136631D-05	0.711321D-05
25	0.994187D-05	0.247208D-04	-0.429750D-04	-0.679064D-06	-0.313107D-05
26	-0.856744D-06	-0.171960D-05	0.326461D-05	0.230304D-05	0.624524D-05
27	-0.374318D-05	-0.622877D-05	0.226752D-05	0.110642D-05	0.361421D-05
28	0.841639D-05	0.247526D-05	-0.229848D-05	-0.362631D-05	-0.106361D-05
29	0.291675D-05	0.119491D-04	-0.526481D-05	-0.157404D-05	-0.577974D-05
30	-0.106200D-04	-0.270024D-04	0.731087D-04	0.172293D-05	0.218936D-05
31	0.788111D-06	0.236821D-05	-0.401596D-05	-0.169189D-05	-0.591423D-05
32	0.222770D-05	0.479250D-05	-0.574674D-05	-0.250839D-06	-0.298230D-05

33	-0.438969D-05	-0.663052D-05	0.172840D-04	0.112613D-05	0.300914D-05
34	-0.603498D-05	-0.357471D-05	0.602854D-05	0.486726D-05	0.679298D-07
35	-0.283752D-06	-0.134971D-04	-0.197826D-04	0.175167D-05	0.122443D-05
36	-0.619860D-07	0.130119D-04	-0.404506D-04	0.192126D-06	0.282054D-05
37	0.612563D-05	-0.652430D-05	-0.125873D-04	0.921847D-05	0.860994D-05
38	0.689997D-05	0.235699D-04	-0.383590D-04	-0.102844D-05	0.877493D-06
39	-0.490956D-05	0.812814D-05	-0.394946D-04	0.500127D-05	0.457097D-05
40	0.624194D-05	0.903100D-05	0.207828D-04	0.129859D-05	-0.307155D-05
41	-0.116921D-04	0.134562D-04	-0.205589D-04	0.228562D-05	0.118502D-05
42	-0.184095D-06	0.127047D-05	-0.603812D-06	0.237846D-05	-0.241731D-05
43	-0.150176D-04	0.106816D-04	-0.449744D-04	0.273798D-06	-0.696903D-05
44	0.516390D-05	0.653030D-05	-0.351684D-04	-0.122973D-05	-0.251997D-06
45	0.197666D-06	0.812288D-05	0.139531D-04	0.142080D-05	-0.851531D-05
46	0.535495D-04	0.433994D-03	-0.996351D-03	-0.877347D-04	-0.317991D-03
47	-0.376136D-05	0.107160D-05	-0.574905D-04	0.106153D-04	-0.301797D-05
48	0.826224D-04	-0.319986D-04	0.731143D-04	-0.283080D-04	-0.450043D-04
49	-0.823596D-04	-0.117370D-03	-0.130616D-03	-0.501994D-04	-0.726706D-05
50	0.205356D-04	0.692257D-05	0.631825D-04	-0.142813D-04	0.216870D-04
51	-0.389249D-04	-0.168850D-03	0.222665D-03	-0.196357D-04	-0.370021D-04
52	0.655161D-05	-0.213378D-04	-0.259042D-03	0.190232D-04	-0.160801D-04
53	-0.167044D-04	-0.197714D-03	0.307221D-03	-0.373120D-04	-0.688190D-05
54	-0.143020D-06	-0.826580D-04	0.230271D-03	-0.984062D-05	-0.286875D-04
55	0.773786D-04	-0.728024D-04	0.117018D-03	-0.368485D-04	-0.147814D-04
56	0.863040D-05	-0.668650D-04	0.238713D-03	-0.293258D-05	0.919884D-05
57	0.856774D-04	-0.461130D-04	0.979581D-05	-0.118592D-04	0.230103D-04
58	-0.848243D-05	-0.214093D-03	0.328295D-03	-0.412491D-04	-0.670279D-05
59	-0.193214D-04	0.342222D-05	0.103942D-03	-0.454120D-05	0.105130D-04
60	0.112321D-03	-0.317729D-04	-0.217793D-03	0.257653D-04	0.116758D-04
61	-0.802720D-04	-0.239597D-03	0.448464D-03	-0.635198D-04	0.198952D-04
62	0.234480D-02	-0.544288D-02	0.692438D-02	-0.283374D-03	-0.487042D-03
63	-0.315603D-02	-0.168511D-03	-0.294988D-02	0.176977D-02	-0.208208D-02
64	-0.369854D-06	-0.126790D-06	-0.550287D-05	0.124381D-05	-0.115263D-05
65	0.242049D-05	0.295659D-05	0.527070D-04	0.347976D-05	0.207429D-06
66	0.756846D-06	0.786536D-05	-0.115298D-04	-0.935767D-06	0.413404D-05
67	-0.328495D-04	-0.422240D-06	0.922459D-04	0.504818D-05	0.141055D-04
68	0.718446D-05	0.902463D-05	-0.971470D-05	-0.492334D-06	-0.385308D-05
69	-0.472192D-05	-0.140875D-05	-0.224433D-05	-0.244400D-05	-0.104770D-05
70	-0.332983D-05	0.153053D-05	-0.123276D-03	0.970405D-06	0.128919D-05
71	-0.343115D-05	0.389430D-05	-0.300301D-04	-0.718060D-05	-0.267494D-05
72	0.197608D-04	0.573174D-05	0.124291D-04	0.434396D-05	0.345535D-05
73	-0.948518D-05	-0.664586D-06	-0.201075D-04	0.100077D-05	-0.133798D-05
74	0.228189D-05	-0.111317D-04	0.308104D-04	-0.663084D-05	-0.604031D-05
75	-0.911628D-05	-0.198572D-04	-0.922052D-05	-0.812952D-05	0.523894D-06
76	-0.242493D-01	-0.187639D-01	-0.116388D+00	-0.974422D-02	-0.251076D-01

77	-0.913627D-05	0.221774D-06	-0.173847D-04	-0.122747D-04	0.119087D-04
78	0.327427D-04	0.404649D-04	-0.538644D-04	0.381265D-05	-0.222751D-05
79	-0.922679D-07	0.357097D-06	-0.354423D-05	-0.123176D-06	0.821104D-07
80	-0.322857D-06	0.277146D-05	0.169353D-05	-0.304119D-06	-0.270695D-07
81	-0.251377D-05	-0.376905D-05	0.211463D-04	0.254546D-06	0.212660D-05
82	-0.595560D-06	0.772250D-06	-0.225043D-05	-0.516916D-06	-0.101159D-05
83	-0.565380D-05	0.218985D-05	-0.422772D-05	0.886134D-06	0.654849D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.513987D-04				
22	-0.575577D-05	0.228447D-04			
23	-0.916811D-06	0.814986D-06	0.464682D-04		
24	-0.288130D-05	0.178174D-05	0.110302D-04	0.609722D-04	
25	0.236587D-04	-0.134289D-05	-0.671687D-05	-0.203874D-04	0.213074D-03
26	-0.594442D-05	0.969032D-05	0.276285D-05	0.135125D-04	-0.112783D-04
27	-0.237977D-05	0.257153D-05	0.157801D-04	0.417147D-04	-0.305527D-04
28	0.151757D-05	-0.144765D-07	-0.829246D-05	-0.243502D-05	0.229053D-05
29	0.324308D-05	-0.153537D-05	-0.187534D-05	-0.116560D-04	0.787701D-05
30	-0.182424D-04	0.123282D-05	0.252676D-05	0.564607D-05	-0.432401D-04
31	0.850451D-05	-0.732190D-05	-0.123436D-05	-0.348900D-05	0.389600D-05
32	0.418728D-05	-0.293157D-05	-0.874078D-05	-0.260308D-04	0.342989D-04
33	-0.565094D-05	0.193890D-05	0.255706D-05	0.858055D-05	-0.166877D-04
34	-0.784629D-05	-0.589522D-05	0.837664D-05	0.650329D-05	-0.217531D-04
35	-0.340791D-05	0.617045D-05	0.225084D-04	0.377608D-05	-0.587240D-04
36	0.257089D-05	-0.297768D-05	0.250061D-04	0.331218D-05	-0.390141D-04
37	-0.924971D-05	-0.168803D-05	0.963010D-05	0.682587D-05	-0.772314D-05
38	0.134851D-04	-0.651879D-05	0.140395D-04	0.131192D-04	-0.181263D-04
39	0.758619D-05	0.248302D-05	0.217820D-04	0.493058D-05	-0.441668D-04
40	0.216665D-04	-0.924472D-05	0.299841D-04	0.648782D-05	-0.273119D-04
41	0.115100D-04	-0.690005D-05	0.649239D-05	-0.754443D-05	-0.216457D-04
42	0.433863D-05	-0.504667D-05	0.119726D-04	0.162516D-04	-0.264925D-04
43	0.928195D-05	-0.736707D-05	0.152726D-04	0.110367D-06	-0.481321D-04
44	0.641735D-05	-0.372877D-05	0.149934D-04	0.211124D-05	-0.471382D-04
45	0.168339D-04	-0.617592D-05	0.169442D-04	0.816927D-05	-0.525035D-04
46	0.180179D-03	-0.875108D-04	0.484110D-03	-0.454659D-03	-0.665581D-03
47	-0.277308D-04	-0.163345D-04	0.565203D-04	0.411462D-04	0.156212D-04
48	0.497578D-04	-0.486992D-04	-0.138183D-04	0.215828D-04	0.177771D-03
49	0.259042D-04	-0.317694D-04	0.466473D-04	0.115376D-04	-0.149972D-03
50	0.743028D-04	-0.227438D-04	0.380119D-04	-0.677521D-05	0.979899D-04
51	-0.895002D-04	-0.265581D-04	-0.211118D-04	0.626222D-04	-0.652909D-05
52	0.631267D-04	-0.647929D-04	0.107985D-03	-0.743834D-04	0.218828D-03

53	-0.134970D-03	-0.734150D-04	-0.132441D-03	0.129796D-03	-0.185679D-03
54	0.968244D-04	-0.102545D-03	-0.149947D-05	-0.742568D-04	0.332069D-03
55	0.142695D-03	-0.914706D-04	-0.842331D-04	-0.394129D-04	0.174291D-03
56	-0.193121D-04	-0.414457D-04	-0.859376D-04	-0.428366D-04	0.769429D-04
57	-0.551131D-04	-0.990316D-05	0.806855D-04	0.143266D-04	0.109848D-03
58	-0.529708D-04	-0.327780D-04	-0.328002D-04	0.194404D-03	0.191763D-04
59	0.141135D-04	0.133143D-04	-0.250345D-04	-0.363324D-04	0.263632D-03
60	0.189468D-04	-0.221105D-04	0.925151D-04	0.111871D-04	0.930315D-04
61	-0.134434D-03	-0.796547D-04	0.159295D-05	0.273209D-03	-0.897715D-04
62	-0.868165D-03	-0.329340D-02	-0.112118D-02	0.153437D-02	-0.731979D-03
63	-0.420051D-02	-0.177671D-03	0.475216D-02	0.811220D-03	-0.475764D-02
64	0.144970D-05	-0.132455D-05	-0.178034D-05	0.851033D-05	0.580502D-05
65	0.394296D-05	-0.529299D-05	0.555677D-05	0.705648D-05	0.403462D-05
66	-0.199909D-05	0.174366D-07	0.621421D-05	-0.563521D-05	0.333916D-05
67	-0.670658D-05	0.264748D-04	-0.422707D-05	0.866038D-05	-0.494315D-04
68	0.130647D-04	-0.301503D-05	0.465805D-05	-0.869385D-05	0.230114D-04
69	0.840059D-06	0.785213D-05	-0.293656D-05	0.169216D-05	-0.432021D-05
70	0.271909D-06	0.150061D-05	0.238730D-05	-0.584703D-05	0.112253D-04
71	-0.634354D-05	-0.179692D-05	-0.126304D-04	-0.475045D-05	-0.467836D-04
72	0.128483D-04	0.307993D-04	-0.258796D-05	-0.444837D-05	0.229053D-04
73	0.131934D-04	-0.645640D-05	-0.156363D-04	-0.581747D-05	0.106218D-04
74	-0.692881D-05	-0.177538D-05	-0.196816D-04	-0.578646D-05	0.566158D-05
75	0.103091D-04	0.294168D-06	-0.353842D-05	-0.264674D-05	0.497259D-05
76	0.765772D-02	-0.127251D-01	0.223821D-01	-0.286346D-01	0.568646D-01
77	-0.357508D-04	0.606065D-05	-0.233873D-05	0.347852D-05	0.138647D-04
78	0.243391D-04	0.124502D-06	0.301801D-05	-0.168475D-04	0.159587D-04
79	-0.144645D-06	0.420644D-06	0.163842D-05	0.559557D-06	-0.228767D-05
80	0.144673D-05	-0.493254D-06	-0.233656D-05	-0.686923D-06	-0.109888D-05
81	0.123783D-05	0.738480D-06	-0.322545D-05	0.303321D-05	-0.473481D-05
82	0.252269D-05	-0.479481D-06	-0.358856D-06	-0.124597D-05	-0.987566D-06
83	-0.527994D-06	0.104051D-06	0.942867D-06	0.972885D-06	-0.807135D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.482139D-04				
27	0.382112D-04	0.385976D-03			
28	-0.112950D-05	-0.310788D-05	0.398416D-04		
29	-0.377973D-05	-0.597149D-05	0.887782D-05	0.513357D-04	
30	0.395777D-05	0.597430D-05	-0.812839D-05	-0.195525D-04	0.190248D-03
31	-0.109319D-04	-0.652089D-05	0.253885D-05	0.117789D-04	-0.128336D-04
32	-0.183386D-04	-0.732308D-04	0.773714D-05	0.208876D-04	-0.197278D-04
33	0.567352D-05	0.964135D-05	-0.118561D-04	-0.376388D-04	0.562482D-04



34	-0.242678D-05	-0.934166D-06	-0.392767D-05	-0.839173D-06	0.267021D-05
35	0.967072D-06	-0.198662D-04	-0.201699D-04	-0.412808D-06	-0.739894D-05
36	0.190689D-05	-0.145030D-04	-0.645148D-05	-0.860511D-05	-0.846942D-05
37	-0.382628D-06	0.165933D-04	-0.801024D-05	0.896210D-06	0.869184D-05
38	-0.117859D-04	-0.164514D-04	-0.627395D-05	-0.146163D-06	-0.145757D-04
39	0.891492D-05	-0.947775D-05	0.166919D-05	-0.490342D-05	0.193949D-05
40	-0.108828D-04	-0.413816D-04	0.275597D-05	-0.501309D-05	0.287674D-05
41	0.103247D-04	-0.558419D-05	-0.736896D-05	0.110250D-04	0.697348D-05
42	0.901563D-05	-0.137759D-04	0.368552D-06	-0.198024D-05	-0.124898D-04
43	-0.441830D-05	-0.178648D-04	0.131403D-05	0.448300D-06	-0.941435D-05
44	-0.775687D-05	-0.375456D-04	-0.510047D-05	-0.118489D-04	0.361518D-04
45	-0.955427D-05	-0.765242D-05	-0.359958D-05	0.208886D-05	-0.201297D-04
46	-0.571381D-03	-0.124891D-02	-0.127391D-03	0.472798D-04	-0.210945D-03
47	-0.107007D-03	-0.141000D-03	-0.759269D-04	-0.115427D-04	0.290870D-04
48	-0.985641D-04	-0.201727D-03	0.116382D-03	0.977106D-04	0.904102D-04
49	-0.137546D-03	-0.147695D-03	-0.378555D-04	0.502526D-04	-0.128241D-03
50	-0.967804D-04	-0.309874D-03	0.274848D-04	-0.570271D-05	0.164831D-03
51	0.107809D-03	0.179349D-04	0.416044D-05	-0.779268D-04	0.287835D-03
52	-0.132742D-03	-0.422282D-03	-0.118909D-03	0.706862D-04	-0.123076D-03
53	0.890948D-04	0.184131D-03	0.106515D-03	-0.144070D-03	0.281014D-03
54	-0.139662D-03	-0.838469D-04	0.231472D-04	0.632701D-04	0.140458D-03
55	-0.124426D-03	-0.306313D-03	0.945650D-04	0.252066D-04	0.550158D-04
56	-0.106270D-03	-0.318562D-03	0.498277D-04	0.513627D-04	0.185156D-03
57	-0.830433D-04	-0.254564D-03	-0.135081D-03	-0.623051D-04	0.149596D-04
58	0.164576D-03	0.384799D-03	0.972922D-04	-0.128627D-03	0.222160D-03
59	-0.842388D-04	-0.199351D-03	0.436127D-05	0.832162D-04	0.358918D-04
60	-0.968395D-04	-0.280020D-03	-0.164815D-03	0.353979D-04	-0.228079D-03
61	0.136744D-03	0.481287D-03	0.112926D-03	-0.226729D-03	0.471364D-03
62	-0.551075D-02	-0.912862D-02	-0.139305D-02	0.139342D-02	-0.646875D-04
63	0.291157D-02	0.130616D-01	-0.190030D-02	-0.113551D-02	0.240434D-02
64	-0.767018D-05	0.173390D-04	0.439156D-05	-0.280115D-06	-0.885908D-05
65	-0.823322D-05	-0.263275D-05	-0.706671D-05	-0.987785D-05	-0.304822D-04
66	-0.638623D-05	-0.124159D-04	-0.766347D-05	-0.461750D-05	0.328018D-05
67	0.219620D-04	-0.343906D-04	-0.131520D-04	-0.437060D-04	0.205364D-04
68	-0.239582D-05	0.117681D-04	-0.863326D-05	0.228498D-04	-0.179010D-04
69	0.122428D-04	0.248299D-04	0.376106D-05	-0.536253D-05	-0.373924D-05
70	-0.122949D-05	0.378923D-04	-0.217685D-04	0.232555D-05	-0.747779D-05
71	-0.139543D-05	0.114684D-04	-0.938730D-05	0.391506D-05	0.592742D-05
72	0.316595D-06	0.223361D-05	0.491743D-05	0.287339D-04	-0.903008D-05
73	-0.743485D-05	-0.781505D-05	-0.518103D-05	0.816286D-05	-0.141692D-04
74	0.630391D-05	-0.356315D-05	0.409281D-05	0.743112D-05	0.350959D-05
75	0.598911D-05	-0.622274D-04	0.180525D-05	-0.171247D-04	0.152647D-04
76	-0.456341D-02	0.646444D-03	0.170187D-01	-0.126896D-01	-0.147706D-01
77	0.935196D-05	0.453438D-04	-0.578721D-05	-0.182197D-04	0.406639D-04

78	-0.439698D-04	-0.478899D-04	0.783974D-05	0.466662D-04	-0.279922D-05
79	0.165592D-05	0.619721D-05	-0.117980D-05	-0.792293D-06	-0.118077D-05
80	0.321777D-06	0.233924D-05	0.353556D-05	0.193130D-05	0.372835D-05
81	-0.318125D-05	-0.128897D-04	-0.470963D-05	-0.849604D-05	0.109231D-04
82	-0.211758D-05	-0.394679D-05	0.205727D-05	0.384037D-06	-0.861353D-06
83	-0.261605D-06	-0.144345D-04	-0.859066D-06	-0.647078D-05	0.953051D-06

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.416578D-04				
32	0.195025D-04	0.177576D-03			
33	-0.261278D-04	-0.632693D-04	0.294706D-03		
34	-0.365693D-05	0.204359D-05	0.939426D-05	0.544892D-02	
35	-0.247327D-04	-0.382861D-05	-0.132980D-04	0.339558D-02	0.221349D-01
36	-0.281624D-04	0.752460D-05	-0.765228D-05	0.435131D-02	0.151305D-01
37	-0.315921D-04	-0.230210D-04	-0.758224D-05	0.266873D-02	0.916112D-02
38	-0.224720D-04	0.329237D-04	0.491251D-05	0.340888D-02	0.130506D-01
39	-0.231521D-04	-0.181940D-04	0.167998D-04	0.346581D-02	0.137965D-01
40	-0.325631D-04	-0.200387D-04	0.906663D-05	0.462946D-02	0.160229D-01
41	-0.246655D-04	0.998671D-05	-0.606915D-05	0.330446D-02	0.114872D-01
42	-0.118401D-04	0.120115D-05	-0.131097D-04	0.226068D-02	0.793708D-02
43	-0.236351D-04	-0.256761D-06	-0.371399D-04	0.369482D-02	0.150525D-01
44	-0.222958D-04	0.210666D-04	-0.184132D-04	0.387402D-02	0.139729D-01
45	-0.624972D-05	-0.763362D-05	-0.109573D-04	0.303593D-02	0.125682D-01
46	0.126758D-03	-0.217440D-03	-0.203680D-02	0.702806D-01	0.261731D+00
47	0.790194D-04	-0.144877D-03	0.128009D-03	0.849739D-03	-0.623710D-03
48	0.178042D-03	0.275000D-03	-0.805186D-04	0.350652D-03	-0.805410D-03
49	0.159484D-03	0.101747D-03	0.216310D-05	-0.832439D-03	-0.147216D-02
50	0.129229D-03	-0.659933D-05	-0.747897D-05	0.547899D-04	-0.169733D-02
51	-0.161535D-04	-0.173051D-03	0.230998D-03	0.127183D-02	0.178447D-02
52	0.152505D-03	0.179884D-03	-0.212551D-04	-0.125779D-03	-0.212275D-02
53	-0.740208D-04	-0.847270D-04	0.357517D-03	0.151475D-02	-0.299085D-04
54	0.147995D-03	0.551719D-04	0.139153D-04	-0.319061D-03	-0.121760D-02
55	0.135685D-03	0.121747D-03	0.411773D-04	-0.395199D-03	-0.834296D-03
56	0.596132D-05	0.247553D-03	-0.104547D-03	0.347067D-03	0.110328D-02
57	0.109260D-03	-0.118422D-03	0.237008D-03	-0.149632D-03	-0.244331D-02
58	-0.737539D-04	-0.181411D-03	0.221954D-03	0.104501D-02	0.984422D-03
59	0.117745D-03	0.182665D-03	0.112490D-03	0.470259D-03	-0.854954D-03
60	0.198711D-03	0.852669D-04	-0.308781D-04	-0.482888D-03	-0.224310D-02
61	-0.115565D-03	-0.125053D-03	0.461019D-03	0.239471D-02	-0.341668D-03
62	0.594798D-02	0.753573D-02	-0.781408D-02	-0.269520D-01	-0.424122D-01
63	-0.591341D-03	-0.377023D-02	0.147472D-01	0.471987D-01	-0.233573D-01

64	-0.664551D-05	0.187211D-05	0.122782D-04	0.550521D-05	0.453095D-04
65	0.396772D-05	-0.256390D-05	0.106281D-04	-0.229798D-03	0.172692D-03
66	-0.506885D-06	-0.594217D-05	-0.262905D-05	-0.569638D-04	-0.140628D-03
67	-0.193267D-04	-0.159575D-04	-0.151993D-04	0.101398D-04	0.410426D-03
68	0.685743D-05	0.291439D-04	0.198816D-06	0.349213D-04	-0.102215D-03
69	0.320843D-05	-0.676411D-05	0.131771D-04	0.134434D-03	0.515969D-04
70	-0.279837D-05	0.103317D-04	0.671897D-05	0.172080D-03	0.135050D-03
71	-0.160863D-04	-0.926423D-05	-0.108579D-04	0.783207D-04	-0.547584D-03
72	-0.104610D-05	-0.667748D-05	-0.120041D-04	-0.874745D-04	-0.139480D-03
73	-0.677338D-05	-0.578703D-05	-0.187387D-04	0.936858D-04	-0.537183D-04
74	-0.366515D-05	0.205113D-04	0.587306D-05	-0.744459D-04	0.162438D-03
75	0.178733D-05	0.162508D-05	-0.739403D-05	0.197152D-03	-0.782969D-04
76	0.396548D-01	0.314178D-01	-0.760636D-01	0.332950D+00	0.491717D+00
77	-0.389224D-04	-0.145643D-04	-0.246426D-04	0.533260D-03	0.746987D-03
78	0.336005D-04	0.466595D-04	-0.925176D-04	-0.218868D-03	0.352467D-04
79	-0.238922D-05	-0.352469D-05	-0.422727D-05	0.130209D-04	0.757451D-04
80	0.111237D-06	0.329794D-05	-0.183721D-05	-0.156260D-04	-0.384775D-05
81	-0.237610D-05	0.870694D-05	-0.257206D-05	-0.986335D-04	-0.172736D-03
82	0.149720D-05	0.321436D-05	0.295165D-05	-0.103614D-04	-0.395314D-05
83	-0.428056D-05	-0.105781D-04	0.451441D-05	0.454189D-03	0.180322D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.232046D-01				
37	0.116147D-01	0.238102D-01			
38	0.154130D-01	0.959169D-02	0.223523D-01		
39	0.151000D-01	0.951810D-02	0.142126D-01	0.223926D-01	
40	0.198797D-01	0.124820D-01	0.159533D-01	0.157782D-01	0.343610D-01
41	0.142957D-01	0.870990D-02	0.114923D-01	0.113025D-01	0.150073D-01
42	0.979478D-02	0.608684D-02	0.797398D-02	0.796637D-02	0.101169D-01
43	0.166475D-01	0.102403D-01	0.154279D-01	0.165806D-01	0.172826D-01
44	0.173306D-01	0.106709D-01	0.138105D-01	0.139646D-01	0.184563D-01
45	0.129537D-01	0.815539D-02	0.133150D-01	0.152245D-01	0.136518D-01
46	0.314033D+00	0.197919D+00	0.271039D+00	0.293274D+00	0.335006D+00
47	-0.133282D-02	-0.181912D-03	-0.177287D-03	-0.176083D-02	0.111017D-02
48	-0.394669D-02	-0.230160D-02	-0.170401D-02	-0.333796D-02	-0.224717D-02
49	-0.171208D-02	-0.215501D-02	-0.177387D-02	-0.340603D-02	-0.132836D-02
50	-0.292925D-02	-0.218511D-02	-0.179427D-02	-0.284276D-02	-0.459785D-03
51	0.184904D-02	0.146125D-03	0.215505D-02	0.294354D-02	0.300851D-02
52	-0.441459D-02	-0.946149D-03	-0.200929D-02	-0.414264D-02	-0.265486D-02
53	0.160287D-02	-0.183734D-03	0.135958D-02	0.337555D-02	0.318690D-02
54	-0.476047D-02	-0.247133D-02	-0.288471D-02	-0.310738D-02	-0.256268D-02

55	-0.200620D-02	-0.339206D-02	-0.167956D-02	-0.243015D-02	-0.149695D-02
56	-0.212602D-02	-0.205615D-02	0.264436D-03	-0.676088D-03	0.240590D-02
57	-0.457323D-02	-0.219837D-02	-0.304041D-02	-0.375590D-02	-0.184583D-02
58	0.179984D-02	0.731987D-06	0.128543D-02	0.318183D-02	0.338493D-02
59	-0.363640D-02	-0.170611D-02	-0.193373D-02	-0.290796D-02	-0.449024D-03
60	-0.523505D-02	-0.167098D-02	-0.295758D-02	-0.465373D-02	-0.244261D-02
61	0.255612D-02	0.472503D-03	0.332140D-02	0.594828D-02	0.491827D-02
62	-0.158241D+00	-0.690988D-01	-0.662658D-01	-0.216661D+00	-0.962826D-01
63	0.168411D-01	0.193643D-01	0.373925D-01	0.429047D-01	-0.147211D-01
64	-0.967293D-05	-0.221768D-04	0.330787D-05	0.863558D-04	0.870288D-04
65	-0.268275D-04	-0.173876D-03	0.945216D-04	0.270484D-03	-0.613107D-04
66	-0.581001D-04	-0.174820D-03	-0.136413D-03	-0.145835D-03	0.616782D-05
67	0.129013D-03	-0.588207D-05	-0.968843D-04	-0.236222D-03	-0.387198D-03
68	-0.169854D-03	-0.158870D-03	-0.228818D-03	-0.163749D-03	0.167653D-03
69	0.180492D-03	-0.102897D-03	0.116795D-03	0.225985D-03	0.118589D-03
70	0.274326D-03	0.249608D-04	0.958304D-05	0.807649D-04	0.100716D-03
71	-0.335086D-03	-0.147112D-05	0.120768D-03	-0.232215D-03	-0.215311D-03
72	-0.896632D-04	-0.144430D-04	-0.343818D-03	-0.152779D-03	-0.302777D-03
73	0.591930D-04	0.197607D-06	0.103855D-03	-0.505731D-04	-0.154975D-03
74	0.179353D-03	0.257375D-04	0.266475D-03	0.850925D-04	0.293977D-03
75	0.238648D-03	0.205582D-03	0.139166D-03	0.354668D-03	0.946780D-04
76	0.197799D+00	0.138690D+00	0.506675D+00	0.500200D+00	0.305624D+00
77	0.751869D-03	0.679724D-03	0.703263D-03	0.642826D-03	0.375554D-03
78	0.302593D-03	0.156135D-03	0.471208D-03	0.800474D-04	-0.713094D-04
79	0.846841D-04	0.720094D-04	0.374799D-04	0.815936D-04	0.605310D-04
80	-0.377727D-04	-0.252190D-04	-0.103607D-04	-0.139685D-04	-0.412397D-04
81	-0.138646D-03	-0.204905D-03	-0.120106D-03	-0.178299D-03	-0.228520D-03
82	-0.100470D-04	0.476770D-05	-0.136201D-04	0.225601D-04	-0.702464D-06
83	0.189522D-02	0.111690D-02	0.188233D-02	0.199243D-02	0.181461D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.239288D-01				
42	0.746836D-02	0.182428D-01			
43	0.124860D-01	0.865405D-02	0.243165D-01		
44	0.131400D-01	0.893882D-02	0.150772D-01	0.232597D-01	
45	0.936018D-02	0.666136D-02	0.162357D-01	0.119176D-01	0.206382D-01
46	0.230703D+00	0.171642D+00	0.308505D+00	0.285488D+00	0.262355D+00
47	0.505805D-03	-0.864919D-04	-0.111318D-02	0.580969D-03	0.316380D-03
48	-0.302175D-02	-0.214444D-02	-0.200306D-02	-0.238715D-02	-0.118201D-02
49	-0.406053D-02	-0.104480D-02	-0.250349D-02	-0.125215D-02	-0.274492D-02
50	-0.509216D-03	-0.239757D-02	-0.299854D-02	-0.319685D-02	-0.135040D-02

51	0.162835D-02	0.129829D-02	0.215221D-02	0.187955D-02	0.276181D-02
52	-0.175261D-02	-0.286061D-02	-0.435691D-02	-0.181144D-02	-0.263622D-02
53	0.188530D-02	0.184149D-02	0.237436D-02	0.117339D-02	0.352627D-02
54	-0.404817D-02	-0.267832D-02	-0.368531D-02	-0.402000D-02	-0.206870D-02
55	-0.119121D-02	-0.967325D-03	-0.148367D-02	-0.926984D-03	-0.860431D-03
56	-0.555700D-03	0.119591D-03	-0.281131D-04	-0.150796D-02	0.627310D-04
57	-0.128769D-02	-0.288638D-02	-0.525014D-02	-0.309299D-02	-0.327316D-02
58	0.897075D-03	0.451090D-03	0.315623D-02	0.224142D-02	0.381885D-02
59	-0.231647D-02	-0.100415D-02	-0.184020D-02	-0.261003D-02	-0.138253D-02
60	-0.118599D-02	-0.361520D-02	-0.533136D-02	-0.258138D-02	-0.327719D-02
61	0.183849D-02	0.333814D-02	0.444913D-02	0.141643D-02	0.613340D-02
62	-0.131204D+00	-0.732457D-01	-0.119371D+00	-0.148892D+00	-0.124937D+00
63	0.746282D-01	0.279107D-01	-0.279175D-01	0.432488D-02	-0.202603D-01
64	-0.702070D-04	0.281687D-05	0.123918D-03	-0.792264D-04	0.578016D-04
65	0.142828D-03	-0.975716D-04	-0.984135D-05	0.248706D-04	0.113665D-03
66	-0.582558D-05	-0.278201D-04	-0.115726D-03	-0.145262D-03	-0.152587D-03
67	-0.120148D-03	-0.544490D-03	-0.150520D-03	-0.448481D-04	0.239579D-03
68	-0.145468D-03	-0.245009D-03	-0.814161D-05	0.426915D-04	-0.684976D-04
69	-0.209865D-03	0.499359D-04	0.185180D-03	0.147734D-03	0.172871D-03
70	0.169092D-03	-0.217032D-03	0.221112D-03	0.378479D-03	-0.545980D-04
71	-0.219544D-04	0.187802D-04	-0.196171D-04	-0.154751D-03	-0.131519D-03
72	0.803570D-04	-0.214485D-03	-0.374104D-04	-0.206455D-03	-0.346620D-03
73	0.450457D-04	0.243597D-03	-0.997468D-05	0.683741D-04	0.894948D-05
74	-0.902025D-04	0.285799D-04	0.125073D-03	0.299085D-03	0.241640D-03
75	-0.241175D-03	0.182547D-03	0.200689D-03	0.213798D-03	0.359886D-03
76	0.561718D+00	0.579951D+00	0.957913D+00	0.582778D+00	0.487848D+00
77	0.390064D-03	0.423741D-03	0.779640D-03	0.122404D-03	0.744161D-03
78	0.216474D-03	0.246191D-03	0.181528D-03	0.959578D-04	0.115319D-03
79	0.893985D-04	0.516209D-04	0.785797D-04	0.558067D-04	0.380841D-04
80	-0.771587D-04	0.425189D-06	-0.640757D-05	-0.215559D-04	-0.301721D-04
81	-0.134007D-03	-0.116895D-03	-0.167302D-03	-0.149676D-03	-0.108783D-03
82	0.136352D-04	0.284000D-04	-0.548957D-05	0.121979D-04	-0.273367D-04
83	0.145471D-02	0.898941D-03	0.212536D-02	0.170727D-02	0.185130D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.334516D+02				
47	0.591297D-01	0.732601D+00			
48	-0.252704D-02	0.441259D+00	0.710541D+00		
49	0.927263D-03	0.290259D+00	0.359444D+00	0.721354D+00	
50	-0.867723D-01	0.438373D+00	0.462555D+00	0.305982D+00	0.783788D+00
51	-0.902955D-01	-0.411052D-01	0.559416D-01	-0.331507D-02	-0.240645D-01

52	-0.825115D-01	0.500279D+00	0.453448D+00	0.309208D+00	0.551820D+00
53	-0.878008D-01	-0.574286D-01	0.801205D-01	-0.238850D-02	-0.565219D-02
54	-0.265640D-01	0.457872D+00	0.601154D+00	0.367497D+00	0.473549D+00
55	-0.348896D-01	0.317211D+00	0.453179D+00	0.283233D+00	0.355972D+00
56	0.650225D-02	0.217336D+00	0.296782D+00	0.179342D+00	0.244047D+00
57	-0.525986D-01	0.557276D+00	0.504159D+00	0.344572D+00	0.616556D+00
58	-0.906587D-01	-0.695454D-01	0.807327D-01	0.165469D-03	-0.157732D-01
59	-0.427902D-01	0.411424D+00	0.520228D+00	0.336144D+00	0.418481D+00
60	-0.164926D+00	0.507441D+00	0.390162D+00	0.275480D+00	0.591000D+00
61	-0.147438D+00	-0.905079D-01	0.105951D+00	-0.843454D-03	-0.861851D-02
62	-0.350329D+01	0.900919D+01	0.107245D+02	0.647726D+01	0.107185D+02
63	-0.534187D+00	-0.893053D+00	0.362393D+00	0.134687D+00	-0.416322D+00
64	0.217932D-02	-0.278509D-02	-0.194905D-02	-0.324362D-02	-0.178786D-02
65	0.216166D-02	-0.598673D-02	0.282521D-02	0.128301D-02	0.123428D-02
66	0.370389D-02	-0.374192D-03	-0.108637D-01	0.160182D-02	-0.708582D-03
67	-0.303285D-01	0.178348D-02	0.515179D-02	-0.656670D-02	0.641748D-03
68	-0.262420D-02	0.134068D-02	0.303432D-03	-0.124482D-02	-0.362309D-02
69	0.991500D-02	0.795065D-03	0.472478D-03	-0.129892D-03	0.826558D-03
70	0.300734D-01	0.204384D-02	0.281811D-02	0.703675D-03	0.348846D-02
71	0.526017D-02	-0.243564D-03	-0.582892D-02	-0.374900D-02	-0.339165D-02
72	-0.856725D-02	0.201110D-02	0.530157D-04	-0.228122D-02	0.478442D-03
73	0.104576D-01	0.107038D-02	0.392328D-04	-0.107596D-02	0.489346D-03
74	0.376493D-02	-0.246779D-02	0.708322D-03	0.755970D-03	0.204253D-02
75	0.132359D-01	-0.165783D-02	0.347404D-03	0.146398D-02	0.813940D-04
76	0.150975D+02	-0.641193D+00	-0.592051D+01	0.573823D+00	-0.778964D+01
77	0.575682D-02	-0.619719D-01	-0.512170D-01	-0.366848D-01	-0.736298D-01
78	0.657738D-02	0.120807D-01	-0.139791D-01	0.255331D-03	0.556177D-02
79	0.384600D-03	-0.767195D-02	-0.100348D-01	-0.630307D-02	-0.819012D-02
80	0.234889D-02	-0.507088D-02	0.120532D-03	-0.338132D-03	-0.329425D-02
81	-0.194625D-02	-0.166591D-02	-0.587786D-03	-0.507606D-03	-0.994014D-03
82	-0.111621D-02	0.246071D-03	0.290640D-03	0.181111D-03	0.138884D-03
83	0.350869D-01	0.918028D-03	0.258959D-03	0.580403D-03	-0.273766D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.732390D+00				
52	-0.394782D-01	0.866341D+00			
53	0.772316D+00	-0.624844D-01	0.141286D+01		
54	0.502257D-01	0.473022D+00	0.818397D-01	0.102994D+01	
55	0.781156D-01	0.344518D+00	0.115023D+00	0.484169D+00	0.744928D+00
56	0.291044D-01	0.231490D+00	0.587944D-01	0.315082D+00	0.241000D+00
57	-0.491128D-01	0.703828D+00	-0.587627D-01	0.518342D+00	0.376503D+00

58	0.787361D+00	-0.601416D-01	0.121827D+01	0.907935D-01	0.116697D+00
59	0.131877D-01	0.410694D+00	0.176756D-01	0.530033D+00	0.384983D+00
60	-0.682445D-01	0.751338D+00	-0.101541D+00	0.405261D+00	0.293853D+00
61	0.115922D+01	-0.806094D-01	0.193406D+01	0.122546D+00	0.168099D+00
62	0.505595D+00	0.117080D+02	0.510143D+00	0.108554D+02	0.823275D+01
63	0.104572D+02	-0.108505D+01	0.182378D+02	0.612215D+00	0.160892D+01
64	0.152773D-02	-0.162552D-02	0.228667D-02	-0.281399D-02	-0.180294D-02
65	0.132758D-01	-0.127177D-02	0.200970D-01	0.242709D-02	0.536131D-02
66	-0.115037D-01	0.290750D-03	-0.157036D-01	-0.236154D-02	-0.508657D-02
67	0.468127D-02	-0.435909D-03	0.735050D-02	0.543515D-02	0.439211D-02
68	0.427135D-03	0.135217D-03	0.336273D-02	0.176363D-02	0.352742D-03
69	-0.213903D-02	-0.202487D-02	-0.878202D-02	0.146509D-02	-0.624868D-03
70	-0.923814D-02	0.173461D-02	-0.127412D-01	-0.144398D-01	-0.543284D-02
71	-0.115768D-01	-0.496452D-03	-0.197347D-01	-0.809425D-02	-0.149370D-01
72	-0.628600D-02	0.134925D-02	-0.836585D-02	-0.206163D-02	-0.264155D-02
73	-0.111884D-02	0.178234D-02	0.381044D-02	0.222293D-03	0.922731D-03
74	0.300058D-02	0.481791D-03	0.555387D-02	0.511372D-02	0.583244D-02
75	0.292092D-02	0.119884D-03	-0.636654D-02	-0.215081D-02	-0.161501D-02
76	0.667432D+00	-0.700765D+01	0.199181D+01	-0.873137D+01	-0.226303D+01
77	0.139730D-01	-0.817522D-01	0.162935D-01	-0.541220D-01	-0.373211D-01
78	-0.120795D+00	0.898404D-02	-0.165827D+00	-0.116349D-01	-0.172507D-01
79	-0.497543D-03	-0.803894D-02	-0.625703D-03	-0.104516D-01	-0.778030D-02
80	-0.858108D-04	-0.506084D-02	-0.290997D-03	0.328823D-03	0.252378D-03
81	-0.968177D-03	-0.737286D-03	-0.207743D-02	-0.521667D-03	0.611740D-03
82	-0.538504D-04	0.287726D-03	0.245684D-03	0.308162D-03	0.231716D-03
83	0.123874D-02	-0.888109D-05	0.101577D-02	0.414547D-03	0.544997D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.566354D+00				
57	0.260367D+00	0.996367D+00			
58	0.597616D-01	-0.939904D-01	0.149567D+01		
59	0.258529D+00	0.472035D+00	-0.498762D-02	0.701344D+00	
60	0.200038D+00	0.822468D+00	-0.108313D+00	0.357619D+00	0.109963D+01
61	0.936223D-01	-0.962033D-01	0.200022D+01	0.743032D-02	-0.164659D+00
62	0.581888D+01	0.118302D+02	0.121853D+01	0.868779D+01	0.123015D+02
63	0.324659D+00	-0.878312D+00	0.145341D+02	0.562022D+00	-0.174537D+01
64	-0.821693D-03	-0.224070D-02	0.259628D-02	-0.262554D-02	-0.119395D-02
65	0.486507D-02	0.138443D-03	0.219669D-01	-0.642095D-03	0.929120D-04
66	-0.283506D-02	0.255342D-02	-0.183790D-01	-0.973398D-03	0.157657D-02
67	0.565113D-03	-0.166539D-02	0.454818D-02	0.191347D-02	-0.441271D-02
68	0.129138D-02	0.113676D-02	0.440630D-02	0.205090D-02	0.181629D-03

69	-0.881047D-04	0.902859D-03	0.222608D-02	0.862719D-03	0.974894D-03
70	-0.520301D-02	0.420152D-02	-0.142316D-01	0.277035D-02	0.249416D-02
71	-0.505366D-02	0.140537D-02	-0.212366D-01	0.162540D-02	-0.126347D-02
72	-0.775750D-02	0.134914D-03	-0.100102D-01	0.178350D-02	0.849661D-03
73	0.105635D-03	-0.269358D-03	-0.971994D-02	-0.399314D-03	0.129251D-02
74	0.453699D-02	-0.456485D-02	0.117144D-01	-0.905993D-02	-0.919078D-03
75	-0.247023D-02	-0.136951D-02	-0.387135D-02	0.359412D-04	0.229692D-02
76	-0.348060D+01	-0.391023D+01	-0.207119D+01	-0.751395D+00	-0.234903D+01
77	-0.270014D-01	-0.952837D-01	0.188942D-01	-0.468817D-01	-0.982626D-01
78	-0.736068D-02	0.128613D-01	-0.175272D+00	-0.133317D-02	0.171627D-01
79	-0.520949D-02	-0.905877D-02	-0.526985D-03	-0.913178D-02	-0.709733D-02
80	0.343991D-04	-0.566234D-02	-0.164907D-03	0.179968D-03	-0.741548D-02
81	-0.311024D-03	-0.103422D-02	-0.181254D-02	-0.135470D-02	-0.471786D-03
82	0.159716D-03	0.349321D-03	0.137406D-03	0.204181D-03	0.288557D-03
83	0.575816D-03	0.233332D-03	0.169991D-02	0.163690D-03	-0.206162D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	0.330600D+01				
62	0.113857D+01	0.113583D+04			
63	0.273780D+02	-0.562093D+02	0.994509D+03		
64	0.297860D-02	-0.381743D-01	0.922188D-02	0.272948D-02	
65	0.362151D-01	0.824111D-01	0.240330D+00	0.592127D-04	0.127065D-01
66	-0.223995D-01	-0.148517D+00	-0.782461D-01	-0.236916D-03	-0.689073D-03
67	0.754042D-02	0.167972D-01	0.108925D+00	0.546978D-04	-0.221673D-03
68	0.788734D-02	-0.154755D-02	0.181677D-01	0.356566D-04	-0.178234D-03
69	-0.213404D-02	0.401349D-01	-0.163763D+00	0.607769D-04	0.684340D-04
70	-0.214546D-01	0.574534D-01	-0.223899D+00	-0.875498D-04	-0.297241D-03
71	-0.313317D-01	-0.892272D-01	-0.163957D+00	-0.158870D-03	-0.107446D-02
72	-0.180490D-01	-0.137770D+00	-0.509913D-01	-0.778127D-04	-0.470598D-03
73	-0.813947D-04	-0.223443D-01	0.232785D+00	-0.530052D-04	-0.284185D-03
74	0.961420D-02	0.226160D+00	-0.104253D+00	0.998074D-04	0.555080D-03
75	-0.334480D-01	-0.352771D-01	-0.409190D+00	-0.789348D-04	-0.116296D-02
76	0.186060D+01	-0.498588D+03	0.398109D+03	-0.165797D+00	0.184603D+00
77	0.197074D-01	-0.154013D+01	0.230646D+00	0.413216D-03	0.402305D-03
78	-0.252618D+00	-0.161235D+00	-0.265817D+01	-0.382920D-03	-0.281553D-02
79	-0.834894D-03	-0.180108D+00	-0.326024D-02	0.547203D-04	-0.427945D-04
80	-0.655360D-03	-0.544126D-01	-0.673117D-02	-0.182208D-04	-0.169671D-04
81	-0.373092D-02	-0.212901D-02	-0.563102D-01	-0.873749D-05	0.289737D-03
82	0.573595D-03	0.123779D-01	0.269303D-02	0.416971D-05	-0.211812D-04
83	0.195446D-02	-0.136996D-01	0.127962D-01	0.137187D-04	0.755603D-04



ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	66	67	68	69	70
66	0.558788D-02				
67	-0.814749D-03	0.356326D-01			
68	-0.577619D-04	0.464171D-03	0.119595D-01		
69	-0.776602D-04	-0.732413D-04	0.144674D-03	0.919073D-02	
70	-0.275646D-03	-0.847924D-03	-0.942589D-04	0.124486D-03	0.285996D-01
71	0.705572D-03	-0.221094D-04	0.215998D-03	0.233916D-03	0.166070D-02
72	0.107915D-03	0.156288D-03	0.203153D-03	-0.110020D-03	0.928476D-03
73	-0.221074D-03	0.230117D-03	-0.151777D-03	-0.140188D-02	-0.194280D-03
74	-0.523053D-03	0.699103D-04	-0.481184D-03	-0.102103D-03	-0.870565D-03
75	-0.774844D-04	-0.159908D-03	-0.146700D-02	-0.372109D-03	0.590949D-03
76	0.373618D+00	0.979290D-02	0.234293D+00	-0.369352D+00	-0.792838D+00
77	-0.992397D-03	0.277223D-03	0.757010D-03	-0.604055D-03	0.101542D-04
78	0.318938D-02	-0.104943D-02	-0.878575D-04	-0.123244D-04	0.165735D-02
79	0.362696D-04	-0.602773D-04	-0.260846D-04	-0.927855D-05	0.212644D-04
80	0.317371D-04	0.831139D-04	0.125372D-05	-0.809821D-05	-0.366001D-04
81	-0.385871D-04	-0.229520D-04	-0.491307D-04	-0.328128D-04	-0.492494D-04
82	-0.145946D-04	-0.381552D-06	0.171921D-04	-0.367112D-04	0.205264D-04
83	-0.482562D-04	0.485931D-04	0.366067D-04	0.135771D-04	-0.571566D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	71	72	73	74	75
71	0.252075D-01				
72	0.506646D-03	0.244777D-01			
73	-0.229430D-04	-0.541268D-04	0.834328D-02		
74	-0.131061D-02	-0.761532D-03	0.539904D-04	0.100033D-01	
75	0.306670D-03	0.347547D-03	-0.625564D-03	0.343039D-03	0.145639D-01
76	-0.998797D+00	0.911754D+00	-0.256798D+00	-0.316224D+00	-0.631011D+00
77	-0.549469D-03	0.408988D-03	-0.157418D-03	0.263224D-03	0.111038D-02
78	0.304393D-02	0.141520D-02	0.234673D-03	-0.840390D-03	-0.171782D-02
79	0.438395D-04	0.153947D-04	0.261660D-04	-0.315658D-04	0.500687D-05
80	0.690257D-04	-0.114037D-04	-0.266631D-04	0.474049D-05	0.501800D-04
81	-0.196888D-03	-0.586107D-04	-0.177216D-04	0.167927D-03	0.542332D-03
82	-0.424280D-04	-0.389442D-04	0.242871D-05	-0.608756D-05	-0.107115D-03
83	-0.106484D-03	0.193416D-04	-0.311125D-04	0.388283D-04	-0.518959D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	76	77	78	79
				80

76	0.939608D+05				
77	0.820976D+00	0.508883D-01			
78	0.255540D+00	-0.315499D-02	0.525940D-01		
79	0.394859D-01	0.938788D-03	0.548755D-04	0.326082D-03	
80	-0.926932D-01	0.763038D-03	-0.416044D-05	-0.476692D-05	0.328868D-03
81	-0.154068D+00	0.100280D-03	0.181294D-03	0.249446D-04	-0.973088D-05
82	-0.289342D-01	-0.195546D-03	-0.339814D-04	-0.614346D-05	-0.376912D-05
83	0.699900D-01	0.290683D-03	-0.594679D-03	-0.156236D-04	-0.808530D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	81	82	83
81	0.132843D-02		
82	0.648144D-05	0.139305D-03	
83	-0.251900D-04	0.662512D-04	0.161986D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.199	1.000			
3	-0.066	-0.160	1.000		
4	0.047	0.229	-0.127	1.000	
5	0.057	0.194	-0.086	0.220	1.000
6	-0.077	-0.212	0.177	-0.172	-0.192
7	0.019	-0.030	0.009	0.019	-0.021
8	0.015	0.008	0.004	-0.010	0.003
9	-0.008	-0.021	0.053	-0.003	-0.018
10	0.000	-0.004	0.005	0.013	0.008
11	0.000	-0.017	0.023	0.000	0.004
12	0.005	0.006	-0.001	-0.003	0.005
13	-0.010	0.004	0.023	-0.015	-0.002
14	0.013	-0.009	0.002	0.002	-0.004
15	0.043	-0.006	-0.012	0.004	0.001
16	-0.003	0.011	0.020	0.002	0.002
17	-0.005	-0.005	0.034	-0.004	0.007
18	0.013	0.008	-0.012	0.000	-0.005
19	-0.007	-0.023	0.020	0.007	-0.003
20	0.012	-0.001	-0.006	0.009	0.012
21	-0.005	-0.006	0.005	0.006	-0.001
22	0.000	0.000	-0.011	-0.001	0.000

23	-0.002	-0.008	-0.005	0.000	-0.007
24	0.026	0.001	-0.003	0.008	0.001
25	0.001	-0.007	0.009	-0.010	-0.008
26	-0.014	-0.016	-0.006	-0.004	0.015
27	0.001	-0.004	-0.013	-0.007	0.004
28	-0.017	-0.003	0.001	0.022	0.012
29	-0.001	0.014	0.005	-0.025	-0.017
30	0.021	-0.004	-0.013	-0.007	-0.005
31	0.014	-0.006	-0.012	0.001	0.005
32	0.009	0.026	-0.017	0.006	-0.005
33	-0.017	-0.011	0.025	-0.017	-0.018
34	-0.010	0.021	0.009	-0.001	-0.005
35	-0.013	0.017	0.000	0.011	0.004
36	-0.015	0.011	-0.002	0.007	-0.001
37	-0.020	0.012	-0.006	0.013	-0.002
38	-0.018	0.011	-0.007	0.009	0.007
39	-0.022	0.016	0.000	0.010	0.011
40	-0.005	0.017	0.004	0.002	0.002
41	-0.015	-0.001	-0.005	0.006	0.008
42	-0.003	0.012	-0.009	-0.005	0.021
43	-0.014	0.010	0.001	0.021	0.005
44	-0.027	0.013	0.006	0.021	-0.001
45	-0.006	0.016	0.006	0.008	0.011
46	-0.018	-0.008	-0.011	0.015	-0.001
47	-0.002	-0.008	-0.002	0.005	0.015
48	-0.001	-0.016	-0.011	0.008	-0.018
49	0.014	-0.024	-0.012	-0.010	-0.011
50	-0.005	-0.013	-0.004	0.009	0.005
51	0.003	0.001	-0.006	0.006	-0.011
52	0.011	-0.011	-0.015	0.012	0.007
53	0.000	0.005	-0.006	0.004	0.007
54	0.013	-0.008	-0.011	0.004	-0.003
55	-0.003	-0.014	0.005	0.009	-0.010
56	0.003	0.007	-0.011	0.002	0.009
57	0.008	-0.012	-0.005	0.013	0.012
58	0.011	0.012	-0.010	0.002	0.009
59	-0.003	-0.008	-0.006	0.015	-0.007
60	0.010	0.000	-0.010	0.009	0.021
61	0.004	0.007	-0.003	-0.007	0.000
62	-0.011	-0.022	0.012	-0.004	0.000
63	0.009	0.004	-0.008	-0.004	0.021
64	-0.010	-0.012	-0.004	-0.020	-0.013
65	-0.002	0.012	-0.008	0.021	0.016
66	-0.001	-0.018	0.007	-0.019	-0.003

67	-0.006	0.007	0.026	-0.016	0.001
68	0.011	0.008	0.011	-0.023	0.001
69	0.012	0.017	-0.010	-0.008	0.011
70	0.007	-0.003	-0.031	-0.014	0.007
71	0.005	-0.038	0.003	-0.008	-0.003
72	-0.003	-0.018	0.011	-0.010	-0.016
73	-0.002	-0.006	-0.003	-0.006	-0.011
74	0.017	0.006	0.006	-0.019	-0.002
75	0.006	-0.004	-0.013	0.020	0.007
76	0.009	0.001	0.005	-0.021	0.005
77	-0.014	0.010	-0.002	-0.005	-0.012
78	0.006	0.004	0.006	0.002	0.005
79	-0.023	0.004	0.015	-0.004	0.007
80	0.002	0.006	-0.014	-0.002	-0.026
81	0.004	0.015	-0.012	-0.008	0.000
82	-0.007	0.012	0.012	-0.005	0.014
83	0.002	0.000	-0.010	0.007	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	0.008	1.000			
8	0.019	-0.085	1.000		
9	0.009	-0.006	0.108	1.000	
10	0.002	-0.017	-0.174	0.039	1.000
11	0.000	-0.014	-0.146	0.034	-0.170
12	0.008	0.031	0.120	-0.126	0.082
13	-0.009	0.007	-0.026	0.012	0.002
14	-0.020	-0.006	-0.009	0.006	-0.003
15	-0.023	-0.009	0.006	0.014	-0.011
16	0.011	-0.005	-0.002	0.006	0.007
17	-0.008	-0.001	-0.008	-0.006	0.001
18	-0.002	0.000	0.012	-0.034	0.005
19	-0.006	-0.009	-0.018	0.002	-0.009
20	-0.011	0.000	0.013	0.012	-0.017
21	-0.034	-0.001	-0.015	0.009	-0.010
22	0.001	-0.008	0.005	0.012	-0.001
23	0.003	0.016	-0.017	0.011	-0.009
24	-0.008	-0.003	0.000	0.029	0.010
25	-0.017	0.006	-0.024	-0.009	-0.006
26	-0.005	-0.009	0.015	0.027	-0.002
27	-0.010	-0.009	0.004	0.022	0.005

28	-0.002	-0.012	0.023	0.003	0.013
29	-0.002	-0.015	-0.011	-0.004	0.008
30	-0.003	-0.005	0.017	-0.004	-0.012
31	-0.015	0.003	0.003	-0.004	0.002
32	-0.008	-0.001	-0.008	-0.009	-0.007
33	0.001	-0.003	0.007	0.008	0.002
34	0.008	0.004	-0.002	-0.013	-0.002
35	0.015	0.008	-0.018	-0.004	-0.006
36	0.005	0.013	-0.011	-0.003	-0.006
37	0.017	0.004	-0.006	0.006	-0.002
38	0.007	0.019	-0.030	-0.016	0.006
39	-0.003	0.002	-0.022	-0.005	0.008
40	0.011	0.012	-0.018	-0.008	-0.002
41	0.007	0.019	-0.008	-0.002	0.010
42	0.008	-0.011	-0.008	0.004	-0.012
43	0.007	0.013	-0.031	0.002	0.007
44	0.000	-0.003	-0.018	-0.003	0.012
45	0.006	-0.001	-0.025	-0.014	0.011
46	0.004	-0.012	0.001	0.000	0.014
47	0.001	0.009	0.012	0.005	-0.006
48	-0.011	-0.005	0.009	0.010	-0.008
49	0.002	0.012	0.017	-0.009	-0.022
50	0.008	-0.006	0.022	-0.001	-0.007
51	-0.001	0.006	0.024	0.011	-0.013
52	-0.002	-0.004	0.008	0.000	-0.004
53	-0.005	-0.014	0.028	0.010	0.002
54	-0.006	-0.001	0.005	-0.009	-0.005
55	0.001	0.008	-0.007	-0.006	-0.004
56	0.001	0.019	-0.003	-0.011	-0.003
57	-0.009	0.007	0.023	-0.001	-0.008
58	-0.005	-0.010	0.023	0.002	-0.013
59	-0.005	-0.001	0.027	0.003	-0.003
60	0.002	-0.004	0.018	-0.016	-0.005
61	-0.005	-0.013	0.022	0.007	-0.008
62	0.001	-0.010	0.010	0.018	0.006
63	-0.010	-0.003	0.018	0.011	-0.018
64	0.000	-0.002	-0.012	-0.005	0.017
65	-0.007	0.002	0.014	-0.014	-0.014
66	0.018	0.000	0.008	-0.032	-0.009
67	-0.007	-0.004	-0.005	-0.013	0.002
68	0.016	0.009	0.008	0.001	0.019
69	-0.016	0.003	-0.023	-0.010	-0.007
70	0.001	-0.028	0.003	0.001	0.010
71	-0.006	-0.020	0.009	0.001	-0.029

72	-0.012	0.011	-0.021	-0.003	0.002
73	-0.020	0.003	-0.007	0.009	0.007
74	-0.025	0.010	0.008	-0.014	0.005
75	0.004	-0.001	0.028	0.009	0.013
76	0.015	0.019	0.005	-0.001	-0.004
77	0.017	-0.014	0.001	-0.013	-0.019
78	0.006	0.003	-0.040	-0.019	0.007
79	-0.009	-0.002	-0.007	0.003	-0.003
80	-0.006	0.020	-0.015	-0.007	0.007
81	0.017	-0.010	0.005	-0.011	0.008
82	-0.029	0.025	0.001	-0.010	-0.015
83	0.016	0.363	0.060	-0.030	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.138	1.000			
13	-0.004	-0.009	1.000		
14	0.018	0.005	0.263	1.000	
15	0.000	-0.010	0.038	0.274	1.000
16	0.002	0.012	-0.095	-0.174	-0.040
17	-0.001	0.001	-0.014	-0.119	-0.211
18	-0.027	0.004	0.009	0.010	0.018
19	0.019	-0.003	0.060	0.234	0.063
20	-0.009	-0.003	0.011	0.086	0.305
21	-0.001	-0.015	-0.021	-0.036	-0.067
22	-0.012	-0.019	0.028	0.017	0.038
23	0.020	-0.011	0.115	0.173	0.058
24	0.012	-0.019	0.036	0.116	0.263
25	-0.013	-0.005	-0.018	-0.021	-0.050
26	0.006	-0.007	0.008	0.031	0.071
27	0.019	-0.017	0.019	0.015	0.046
28	-0.031	0.003	-0.110	-0.226	-0.065
29	0.008	0.019	-0.024	-0.123	-0.292
30	0.006	-0.012	0.024	0.050	0.058
31	0.009	0.010	-0.017	-0.037	-0.059
32	-0.018	-0.006	0.001	-0.042	-0.050
33	-0.005	0.001	0.026	0.042	0.052
34	-0.002	0.020	0.011	0.017	-0.012
35	0.003	0.004	-0.011	-0.005	0.024
36	-0.004	-0.004	-0.014	0.000	0.008
37	-0.011	0.008	-0.011	0.002	0.021

38	-0.010	0.002	-0.021	-0.002	0.005
39	-0.011	0.002	-0.023	-0.017	0.007
40	-0.013	0.002	-0.016	-0.003	-0.004
41	0.002	0.000	-0.007	-0.006	0.002
42	-0.006	-0.019	0.008	-0.006	0.000
43	0.007	0.001	-0.011	-0.008	-0.007
44	-0.011	0.004	-0.002	-0.001	-0.003
45	0.001	0.008	-0.009	-0.011	0.006
46	0.007	0.010	0.001	0.008	0.005
47	-0.012	0.000	0.005	0.009	0.005
48	0.002	-0.005	-0.009	-0.011	-0.008
49	0.008	0.010	-0.012	-0.008	0.004
50	0.002	-0.003	-0.018	-0.006	-0.006
51	-0.014	-0.006	0.012	-0.003	0.004
52	-0.010	0.004	-0.016	-0.021	-0.009
53	-0.011	-0.014	0.016	-0.011	0.009
54	0.001	-0.008	0.001	-0.003	-0.007
55	0.007	-0.020	0.003	-0.002	-0.006
56	0.001	-0.002	0.004	-0.017	0.002
57	-0.014	-0.006	0.003	-0.002	0.001
58	-0.011	-0.006	0.009	-0.015	-0.002
59	-0.011	0.009	0.006	0.004	0.011
60	-0.017	0.005	-0.007	-0.018	-0.007
61	-0.003	-0.013	0.009	-0.016	0.011
62	-0.012	-0.013	0.001	-0.001	0.013
63	-0.009	-0.027	0.009	-0.005	-0.009
64	0.005	-0.008	0.007	0.007	0.007
65	0.008	0.008	0.003	-0.009	-0.014
66	0.008	0.010	-0.006	0.015	0.005
67	0.009	-0.012	0.003	0.008	0.012
68	-0.002	0.007	0.004	0.010	0.013
69	0.006	0.010	-0.005	-0.012	-0.012
70	-0.015	-0.002	0.007	0.018	0.007
71	0.012	-0.006	0.010	0.006	0.002
72	0.005	-0.012	0.012	-0.008	-0.015
73	-0.008	-0.005	-0.006	0.012	0.013
74	-0.003	0.017	0.005	-0.016	-0.025
75	-0.040	0.015	0.004	0.041	-0.012
76	-0.011	-0.009	0.000	-0.010	-0.008
77	-0.022	-0.017	-0.001	-0.012	0.011
78	0.020	0.011	-0.013	-0.011	-0.007
79	-0.004	0.014	-0.007	-0.001	0.006
80	0.010	-0.013	-0.002	-0.018	-0.011
81	0.004	0.012	0.008	0.014	0.008

82	0.036	0.006	0.003	0.003	0.002
83	-0.031	0.007	0.000	-0.006	0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	1.000				
17	0.210	1.000			
18	-0.096	-0.224	1.000		
19	-0.127	-0.032	0.013	1.000	
20	-0.013	-0.125	0.015	0.191	1.000
21	0.049	0.231	-0.168	-0.079	-0.191
22	0.002	-0.023	0.004	0.058	0.307
23	-0.075	-0.038	0.015	0.213	0.056
24	-0.032	-0.093	0.026	0.052	0.244
25	0.096	0.212	-0.136	-0.014	-0.057
26	-0.017	-0.031	0.022	0.099	0.241
27	-0.027	-0.040	0.005	0.017	0.049
28	0.189	0.049	-0.017	-0.172	-0.045
29	0.058	0.209	-0.034	-0.066	-0.216
30	-0.109	-0.245	0.244	0.037	0.042
31	0.017	0.046	-0.029	-0.078	-0.245
32	0.024	0.045	-0.020	-0.006	-0.060
33	-0.036	-0.048	0.046	0.020	0.047
34	-0.012	-0.006	0.004	0.020	0.000
35	0.000	-0.011	-0.006	0.004	0.002
36	0.000	0.011	-0.012	0.000	0.005
37	0.006	-0.005	-0.004	0.018	0.015
38	0.007	0.020	-0.012	-0.002	0.002
39	-0.005	0.007	-0.012	0.010	0.008
40	0.005	0.006	0.005	0.002	-0.004
41	-0.011	0.011	-0.006	0.004	0.002
42	0.000	0.001	0.000	0.005	-0.005
43	-0.014	0.009	-0.013	0.001	-0.012
44	0.005	0.005	-0.011	-0.002	0.000
45	0.000	0.007	0.004	0.003	-0.016
46	0.001	0.009	-0.008	-0.005	-0.015
47	-0.001	0.000	-0.003	0.004	-0.001
48	0.014	-0.005	0.004	-0.010	-0.014
49	-0.014	-0.017	-0.007	-0.018	-0.002
50	0.003	0.001	0.003	-0.005	0.007
51	-0.006	-0.025	0.012	-0.007	-0.012
52	0.001	-0.003	-0.013	0.006	-0.005



53	-0.002	-0.021	0.012	-0.009	-0.002
54	0.000	-0.010	0.010	-0.003	-0.008
55	0.013	-0.011	0.006	-0.013	-0.005
56	0.002	-0.011	0.015	-0.001	0.003
57	0.012	-0.006	0.000	-0.004	0.006
58	-0.001	-0.022	0.012	-0.010	-0.001
59	-0.003	0.001	0.006	-0.002	0.003
60	0.015	-0.004	-0.010	0.007	0.003
61	-0.006	-0.016	0.011	-0.010	0.003
62	0.010	-0.020	0.009	-0.003	-0.004
63	-0.014	-0.001	-0.004	0.017	-0.018
64	-0.001	0.000	-0.005	0.007	-0.006
65	0.003	0.003	0.022	0.009	0.000
66	0.001	0.013	-0.007	-0.004	0.015
67	-0.025	0.000	0.023	0.008	0.020
68	0.009	0.010	-0.004	-0.001	-0.009
69	-0.007	-0.002	-0.001	-0.008	-0.003
70	-0.003	0.001	-0.034	0.002	0.002
71	-0.003	0.003	-0.009	-0.014	-0.005
72	0.018	0.005	0.004	0.008	0.006
73	-0.015	-0.001	-0.010	0.003	-0.004
74	0.003	-0.014	0.014	-0.020	-0.016
75	-0.011	-0.021	-0.004	-0.020	0.001
76	-0.011	-0.008	-0.018	-0.009	-0.022
77	-0.006	0.000	-0.004	-0.016	0.014
78	0.020	0.022	-0.011	0.005	-0.003
79	-0.001	0.002	-0.009	-0.002	0.001
80	-0.003	0.019	0.004	-0.005	0.000
81	-0.010	-0.013	0.027	0.002	0.016
82	-0.007	0.008	-0.009	-0.013	-0.023
83	-0.020	0.007	-0.005	0.007	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.168	1.000			
23	-0.019	0.025	1.000		
24	-0.051	0.048	0.207	1.000	
25	0.226	-0.019	-0.068	-0.179	1.000
26	-0.119	0.292	0.058	0.249	-0.111
27	-0.017	0.027	0.118	0.272	-0.107
28	0.034	0.000	-0.193	-0.049	0.025

29	0.063	-0.045	-0.038	-0.208	0.075
30	-0.184	0.019	0.027	0.052	-0.215
31	0.184	-0.237	-0.028	-0.069	0.041
32	0.044	-0.046	-0.096	-0.250	0.176
33	-0.046	0.024	0.022	0.064	-0.067
34	-0.015	-0.017	0.017	0.011	-0.020
35	-0.003	0.009	0.022	0.003	-0.027
36	0.002	-0.004	0.024	0.003	-0.018
37	-0.008	-0.002	0.009	0.006	-0.003
38	0.013	-0.009	0.014	0.011	-0.008
39	0.007	0.003	0.021	0.004	-0.020
40	0.016	-0.010	0.024	0.004	-0.010
41	0.010	-0.009	0.006	-0.006	-0.010
42	0.004	-0.008	0.013	0.015	-0.013
43	0.008	-0.010	0.014	0.000	-0.021
44	0.006	-0.005	0.014	0.002	-0.021
45	0.016	-0.009	0.017	0.007	-0.025
46	0.004	-0.003	0.012	-0.010	-0.008
47	-0.005	-0.004	0.010	0.006	0.001
48	0.008	-0.012	-0.002	0.003	0.014
49	0.004	-0.008	0.008	0.002	-0.012
50	0.012	-0.005	0.006	-0.001	0.008
51	-0.015	-0.006	-0.004	0.009	-0.001
52	0.009	-0.015	0.017	-0.010	0.016
53	-0.016	-0.013	-0.016	0.014	-0.011
54	0.013	0.021	0.000	-0.009	0.022
55	0.023	-0.022	-0.014	-0.006	0.014
56	-0.004	-0.012	-0.017	-0.007	0.007
57	-0.008	-0.002	0.012	0.002	0.008
58	-0.006	-0.006	-0.004	0.020	0.001
59	0.002	0.003	-0.004	-0.006	0.022
60	0.003	-0.004	0.013	0.001	0.006
61	-0.010	-0.009	0.000	0.019	-0.003
62	-0.004	-0.020	-0.005	0.006	-0.001
63	-0.019	-0.001	0.022	0.003	-0.010
64	0.004	-0.005	0.005	0.021	0.008
65	0.005	-0.010	0.007	0.008	0.002
66	-0.004	0.000	0.012	-0.010	0.003
67	-0.005	0.029	-0.003	0.006	-0.018
68	0.017	-0.006	0.006	-0.010	0.014
69	0.001	0.017	-0.004	0.002	-0.003
70	0.000	0.002	0.002	-0.004	0.005
71	-0.006	-0.002	-0.012	-0.004	-0.020
72	0.011	0.041	-0.002	-0.004	0.010

73	0.020	-0.015	-0.025	-0.008	0.008
74	-0.010	-0.004	-0.029	-0.007	0.004
75	0.012	0.001	-0.004	-0.003	0.003
76	0.003	-0.009	0.011	-0.012	0.013
77	-0.022	0.006	-0.002	0.002	0.004
78	0.015	0.000	0.002	-0.009	0.005
79	-0.001	0.005	0.013	0.004	-0.009
80	0.011	-0.006	-0.019	-0.005	-0.004
81	0.005	0.004	-0.013	0.011	-0.009
82	0.030	-0.008	-0.004	-0.014	-0.006
83	-0.002	0.001	0.003	0.003	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.280	1.000			
28	-0.026	-0.025	1.000		
29	-0.076	-0.042	0.196	1.000	
30	0.041	0.022	-0.093	-0.198	1.000
31	-0.244	-0.051	0.062	0.255	-0.144
32	-0.198	-0.280	0.092	0.219	-0.107
33	0.048	0.029	-0.109	-0.306	0.238
34	-0.005	-0.001	-0.008	-0.002	0.003
35	0.001	-0.007	-0.021	0.000	-0.004
36	0.002	-0.005	-0.007	-0.008	-0.004
37	0.000	0.005	-0.008	0.001	0.004
38	-0.011	-0.006	-0.007	0.000	-0.007
39	0.009	-0.003	0.002	-0.005	0.001
40	-0.008	-0.011	0.002	-0.004	0.001
41	0.010	-0.002	-0.008	0.010	0.003
42	0.010	-0.005	0.000	-0.002	-0.007
43	-0.004	-0.006	0.001	0.000	-0.004
44	-0.007	-0.013	-0.005	-0.011	0.017
45	-0.010	-0.003	-0.004	0.002	-0.010
46	-0.014	-0.011	-0.003	0.001	-0.003
47	-0.018	-0.008	-0.014	-0.002	0.002
48	-0.017	-0.012	0.022	0.016	0.008
49	-0.023	-0.009	-0.007	0.008	-0.011
50	-0.016	-0.018	0.005	-0.001	0.013
51	0.018	0.001	0.001	-0.013	0.024
52	-0.021	-0.023	-0.020	0.011	-0.010
53	0.011	0.008	0.014	-0.017	0.017

54	-0.020	-0.004	0.004	0.009	0.010
55	-0.021	-0.018	0.017	0.004	0.005
56	-0.020	-0.022	0.010	0.010	0.018
57	-0.012	-0.013	-0.021	-0.009	0.001
58	0.019	0.016	0.013	-0.015	0.013
59	-0.014	-0.012	0.001	0.014	0.003
60	-0.013	-0.014	-0.025	0.005	-0.016
61	0.011	0.013	0.010	-0.017	0.019
62	-0.024	-0.014	-0.007	0.006	0.000
63	0.013	0.021	-0.010	-0.005	0.006
64	-0.021	0.017	0.013	-0.001	-0.012
65	-0.011	-0.001	-0.010	-0.012	-0.020
66	-0.012	-0.008	-0.016	-0.009	0.003
67	0.017	-0.009	-0.011	-0.032	0.008
68	-0.003	0.005	-0.013	0.029	-0.012
69	0.018	0.013	0.006	-0.008	-0.003
70	-0.001	0.011	-0.020	0.002	-0.003
71	-0.001	0.004	-0.009	0.003	0.003
72	0.000	0.001	0.005	0.026	-0.004
73	-0.012	-0.004	-0.009	0.012	-0.011
74	0.009	-0.002	0.006	0.010	0.003
75	0.007	-0.026	0.002	-0.020	0.009
76	-0.002	0.000	0.009	-0.006	-0.003
77	0.006	0.010	-0.004	-0.011	0.013
78	-0.028	-0.011	0.005	0.028	-0.001
79	0.013	0.017	-0.010	-0.006	-0.005
80	0.003	0.007	0.031	0.015	0.015
81	-0.013	-0.018	-0.020	-0.033	0.022
82	-0.026	-0.017	0.028	0.005	-0.005
83	-0.001	-0.018	-0.003	-0.022	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.227	1.000			
33	-0.236	-0.277	1.000		
34	-0.008	0.002	0.007	1.000	
35	-0.026	-0.002	-0.005	0.309	1.000
36	-0.029	0.004	-0.003	0.387	0.668
37	-0.032	-0.011	-0.003	0.234	0.399
38	-0.023	0.017	0.002	0.309	0.587
39	-0.024	-0.009	0.007	0.314	0.620

40	-0.027	-0.008	0.003	0.338	0.581
41	-0.025	0.005	-0.002	0.289	0.499
42	-0.014	0.001	-0.006	0.227	0.395
43	-0.023	0.000	-0.014	0.321	0.649
44	-0.023	0.010	-0.007	0.344	0.616
45	-0.007	-0.004	-0.004	0.286	0.588
46	0.003	-0.003	-0.021	0.165	0.304
47	0.014	-0.013	0.009	0.013	-0.005
48	0.033	0.024	-0.006	0.006	-0.006
49	0.029	0.009	0.000	-0.013	-0.012
50	0.023	-0.001	0.000	0.001	-0.013
51	-0.003	-0.015	0.016	0.020	0.014
52	0.025	0.015	-0.001	-0.002	-0.015
53	-0.010	-0.005	0.018	0.017	0.000
54	0.023	0.004	0.001	-0.004	-0.008
55	0.024	0.011	0.003	-0.006	-0.006
56	0.001	0.025	-0.008	0.006	0.010
57	0.017	-0.009	0.014	-0.002	-0.016
58	-0.009	-0.011	0.011	0.012	0.005
59	0.022	0.016	0.008	0.008	-0.007
60	0.029	0.006	-0.002	-0.006	-0.014
61	-0.010	-0.005	0.015	0.018	-0.001
62	0.027	0.017	-0.014	-0.011	-0.008
63	-0.003	-0.009	0.027	0.020	-0.005
64	-0.020	0.003	0.014	0.001	0.006
65	0.005	-0.002	0.005	-0.028	0.010
66	-0.001	-0.006	-0.002	-0.010	-0.013
67	-0.016	-0.006	-0.005	0.001	0.015
68	0.010	0.020	0.000	0.004	-0.006
69	0.005	-0.005	0.008	0.019	0.004
70	-0.003	0.005	0.002	0.014	0.005
71	-0.016	-0.004	-0.004	0.007	-0.023
72	-0.001	-0.003	-0.004	-0.008	-0.006
73	-0.011	-0.005	-0.012	0.014	-0.004
74	-0.006	0.015	0.003	-0.010	0.011
75	0.002	0.001	-0.004	0.022	-0.004
76	0.020	0.008	-0.014	0.015	0.011
77	-0.027	-0.005	-0.006	0.032	0.022
78	0.023	0.015	-0.023	-0.013	0.001
79	-0.020	-0.015	-0.014	0.010	0.028
80	0.001	0.014	-0.006	-0.012	-0.001
81	-0.010	0.018	-0.004	-0.037	-0.032
82	0.020	0.020	0.015	-0.012	-0.002
83	-0.016	-0.020	0.007	0.153	0.301

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	36	37	38	39	40
36	1.000				
37	0.494	1.000			
38	0.677	0.416	1.000		
39	0.662	0.412	0.635	1.000	
40	0.704	0.436	0.576	0.569	1.000
41	0.607	0.365	0.497	0.488	0.523
42	0.476	0.292	0.395	0.394	0.404
43	0.701	0.426	0.662	0.711	0.598
44	0.746	0.453	0.606	0.612	0.653
45	0.592	0.368	0.620	0.708	0.513
46	0.356	0.222	0.313	0.339	0.312
47	-0.010	-0.001	-0.001	-0.014	0.007
48	-0.031	-0.018	-0.014	-0.026	-0.014
49	-0.013	-0.016	-0.014	-0.027	-0.008
50	-0.022	-0.016	-0.014	-0.021	-0.003
51	0.014	0.001	0.017	0.023	0.019
52	-0.031	-0.007	-0.014	-0.030	-0.015
53	0.009	-0.001	0.008	0.019	0.014
54	-0.031	-0.016	-0.019	-0.020	-0.014
55	-0.015	-0.025	-0.013	-0.019	-0.009
56	-0.019	-0.018	0.002	-0.006	0.017
57	-0.030	-0.014	-0.020	-0.025	-0.010
58	0.010	0.000	0.007	0.017	0.015
59	-0.029	-0.013	-0.015	-0.023	-0.003
60	-0.033	-0.010	-0.019	-0.030	-0.013
61	0.009	0.002	0.012	0.022	0.015
62	-0.031	-0.013	-0.013	-0.043	-0.015
63	0.004	0.004	0.008	0.009	-0.003
64	-0.001	-0.003	0.000	0.011	0.009
65	-0.002	-0.010	0.006	0.016	-0.003
66	-0.005	-0.015	-0.012	-0.013	0.000
67	0.004	0.000	-0.003	-0.008	-0.011
68	-0.010	-0.009	-0.014	-0.010	0.008
69	0.012	-0.007	0.008	0.016	0.007
70	0.011	0.001	0.000	0.003	0.003
71	-0.014	0.000	0.005	-0.010	-0.007
72	-0.004	-0.001	-0.015	-0.007	-0.010
73	0.004	0.000	0.008	-0.004	-0.009
74	0.012	0.002	0.018	0.006	0.016

75	0.013	0.011	0.008	0.020	0.004
76	0.004	0.003	0.011	0.011	0.005
77	0.022	0.020	0.021	0.019	0.009
78	0.009	0.004	0.014	0.002	-0.002
79	0.031	0.026	0.014	0.030	0.018
80	-0.014	-0.009	-0.004	-0.005	-0.012
81	-0.025	-0.036	-0.022	-0.033	-0.034
82	-0.006	0.003	-0.008	0.013	0.000
83	0.309	0.180	0.313	0.331	0.243

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.357	1.000			
43	0.518	0.411	1.000		
44	0.557	0.434	0.634	1.000	
45	0.421	0.343	0.725	0.544	1.000
46	0.258	0.220	0.342	0.324	0.316
47	0.004	-0.001	-0.008	0.004	0.003
48	-0.023	-0.019	-0.015	-0.019	-0.010
49	-0.031	-0.009	-0.019	-0.010	-0.022
50	-0.004	-0.020	-0.022	-0.024	-0.011
51	0.012	0.011	0.016	0.014	0.022
52	-0.012	-0.023	-0.030	-0.013	-0.020
53	0.010	0.011	0.013	0.006	0.021
54	-0.026	-0.020	-0.023	-0.026	-0.014
55	-0.009	-0.008	-0.011	-0.007	-0.007
56	-0.005	0.001	0.000	-0.013	0.001
57	-0.008	-0.021	-0.034	-0.020	-0.023
58	0.005	0.003	0.017	0.012	0.022
59	-0.018	-0.009	-0.014	-0.020	-0.011
60	-0.007	-0.026	-0.033	-0.016	-0.022
61	0.007	0.014	0.016	0.005	0.023
62	-0.025	-0.016	-0.023	-0.029	-0.026
63	0.015	0.007	-0.006	0.001	-0.004
64	-0.009	0.000	0.015	-0.010	0.008
65	0.008	-0.006	-0.001	0.001	0.007
66	-0.001	-0.003	-0.010	-0.013	-0.014
67	-0.004	-0.021	-0.005	-0.002	0.009
68	-0.009	-0.017	0.000	0.003	-0.004
69	-0.014	0.004	0.012	0.010	0.013
70	0.006	-0.010	0.008	0.015	-0.002

71	-0.001	0.001	-0.001	-0.006	-0.006
72	0.003	-0.010	-0.002	-0.009	-0.015
73	0.003	0.020	-0.001	0.005	0.001
74	-0.006	0.002	0.008	0.020	0.017
75	-0.013	0.011	0.011	0.012	0.021
76	0.012	0.014	0.020	0.012	0.011
77	0.011	0.014	0.022	0.004	0.023
78	0.006	0.008	0.005	0.003	0.004
79	0.032	0.021	0.028	0.020	0.015
80	-0.028	0.000	-0.002	-0.008	-0.012
81	-0.024	-0.024	-0.029	-0.027	-0.021
82	0.007	0.018	-0.003	0.007	-0.016
83	0.234	0.165	0.339	0.278	0.320

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	0.012	1.000			
48	-0.001	0.612	1.000		
49	0.000	0.399	0.502	1.000	
50	-0.017	0.579	0.620	0.407	1.000
51	-0.018	-0.056	0.078	-0.005	-0.032
52	-0.015	0.628	0.578	0.391	0.670
53	-0.013	-0.056	0.080	-0.002	-0.005
54	-0.005	0.527	0.703	0.426	0.527
55	-0.007	0.429	0.623	0.386	0.466
56	0.001	0.337	0.468	0.281	0.366
57	-0.009	0.652	0.599	0.406	0.698
58	-0.013	-0.066	0.078	0.000	-0.015
59	-0.009	0.574	0.737	0.473	0.564
60	-0.027	0.565	0.441	0.309	0.637
61	-0.014	-0.058	0.069	-0.001	-0.005
62	-0.018	0.312	0.378	0.226	0.359
63	-0.003	-0.033	0.014	0.005	-0.015
64	0.007	-0.062	-0.044	-0.073	-0.039
65	0.003	-0.062	0.030	0.013	0.012
66	0.009	-0.006	-0.172	0.025	-0.011
67	-0.028	0.011	0.032	-0.041	0.004
68	-0.004	0.014	0.003	-0.013	-0.037
69	0.018	0.010	0.006	-0.002	0.010
70	0.031	0.014	0.020	0.005	0.023
71	0.006	-0.002	-0.044	-0.028	-0.024



72	-0.009	0.015	0.000	-0.017	0.003
73	0.020	0.014	0.001	-0.014	0.006
74	0.007	-0.029	0.008	0.009	0.023
75	0.019	-0.016	0.003	0.014	0.001
76	0.009	-0.002	-0.023	0.002	-0.029
77	0.004	-0.321	-0.269	-0.191	-0.369
78	0.005	0.062	-0.072	0.001	0.027
79	0.004	-0.496	-0.659	-0.411	-0.512
80	0.022	-0.327	0.008	-0.022	-0.205
81	-0.009	-0.053	-0.019	-0.016	-0.031
82	-0.016	0.024	0.029	0.018	0.013
83	0.151	0.027	0.008	0.017	-0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	-0.050	1.000			
53	0.759	-0.056	1.000		
54	0.058	0.501	0.068	1.000	
55	0.106	0.429	0.112	0.553	1.000
56	0.045	0.330	0.066	0.413	0.371
57	-0.057	0.758	-0.050	0.512	0.437
58	0.752	-0.053	0.838	0.073	0.111
59	0.018	0.527	0.018	0.624	0.533
60	-0.076	0.770	-0.081	0.381	0.325
61	0.745	-0.048	0.895	0.066	0.107
62	0.018	0.373	0.013	0.317	0.283
63	0.387	-0.037	0.487	0.019	0.059
64	0.034	-0.033	0.037	-0.053	-0.040
65	0.138	-0.012	0.150	0.021	0.055
66	-0.180	0.004	-0.177	-0.031	-0.079
67	0.029	-0.002	0.033	0.028	0.027
68	0.005	0.001	0.026	0.016	0.004
69	-0.026	-0.023	-0.077	0.015	-0.008
70	-0.064	0.011	-0.063	-0.084	-0.037
71	-0.085	-0.003	-0.105	-0.050	-0.109
72	-0.047	0.009	-0.045	-0.013	-0.020
73	-0.014	0.021	0.035	0.002	0.012
74	0.035	0.005	0.047	0.050	0.068
75	0.028	0.001	-0.044	-0.018	-0.016
76	0.003	-0.025	0.005	-0.028	-0.009
77	0.072	-0.389	0.061	-0.236	-0.192

78	-0.615	0.042	-0.608	-0.050	-0.087
79	-0.032	-0.478	-0.029	-0.570	-0.499
80	-0.006	-0.300	-0.013	0.018	0.016
81	-0.031	-0.022	-0.048	-0.014	0.019
82	-0.005	0.026	0.018	0.026	0.023
83	0.036	0.000	0.021	0.010	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.347	1.000			
58	0.065	-0.077	1.000		
59	0.410	0.565	-0.005	1.000	
60	0.253	0.786	-0.084	0.407	1.000
61	0.068	-0.053	0.900	0.005	-0.086
62	0.229	0.352	0.030	0.308	0.348
63	0.014	-0.028	0.377	0.021	-0.053
64	-0.021	-0.043	0.041	-0.060	-0.022
65	0.057	0.001	0.159	-0.007	0.001
66	-0.050	0.034	-0.201	-0.016	0.020
67	0.004	-0.009	0.020	0.012	-0.022
68	0.016	0.010	0.033	0.022	0.002
69	-0.001	0.009	0.019	0.011	0.010
70	-0.041	0.025	-0.069	0.020	0.014
71	-0.042	0.009	-0.109	0.012	-0.008
72	-0.066	0.001	-0.052	0.014	0.005
73	0.002	-0.003	-0.087	-0.005	0.013
74	0.060	-0.046	0.096	-0.108	-0.009
75	-0.027	-0.011	-0.026	0.000	0.018
76	-0.015	-0.013	-0.006	-0.003	-0.007
77	-0.159	-0.423	0.068	-0.248	-0.415
78	-0.043	0.056	-0.625	-0.007	0.071
79	-0.383	-0.503	-0.024	-0.604	-0.375
80	0.003	-0.313	-0.007	0.012	-0.390
81	-0.011	-0.028	-0.041	-0.044	-0.012
82	0.018	0.030	0.010	0.021	0.023
83	0.019	0.006	0.035	0.005	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65

61	1.000				
62	0.019	1.000			
63	0.477	-0.053	1.000		
64	0.031	-0.022	0.006	1.000	
65	0.177	0.022	0.068	0.010	1.000
66	-0.165	-0.059	-0.033	-0.061	-0.082
67	0.022	0.003	0.018	0.006	-0.010
68	0.040	0.000	0.005	0.006	-0.014
69	-0.012	0.012	-0.054	0.012	0.006
70	-0.070	0.010	-0.042	-0.010	-0.016
71	-0.109	-0.017	-0.033	-0.019	-0.060
72	-0.063	-0.026	-0.010	-0.010	-0.027
73	0.000	-0.007	0.081	-0.011	-0.028
74	0.053	0.067	-0.033	0.019	0.049
75	-0.152	-0.009	-0.108	-0.013	-0.085
76	0.003	-0.048	0.041	-0.010	0.005
77	0.048	-0.203	0.032	0.035	0.016
78	-0.606	-0.021	-0.368	-0.032	-0.109
79	-0.025	-0.296	-0.006	0.058	-0.021
80	-0.020	-0.089	-0.012	-0.019	-0.008
81	-0.056	-0.002	-0.049	-0.005	0.071
82	0.027	0.031	0.007	0.007	-0.016
83	0.027	-0.010	0.010	0.007	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	-0.058	1.000			
68	-0.007	0.022	1.000		
69	-0.011	-0.004	0.014	1.000	
70	-0.022	-0.027	-0.005	0.008	1.000
71	0.059	-0.001	0.012	0.015	0.062
72	0.009	0.005	0.012	-0.007	0.035
73	-0.032	0.013	-0.015	-0.160	-0.013
74	-0.070	0.004	-0.044	-0.011	-0.051
75	-0.009	-0.007	-0.111	-0.032	0.029
76	0.016	0.000	0.007	-0.013	-0.015
77	-0.059	0.007	0.031	-0.028	0.000
78	0.186	-0.024	-0.004	-0.001	0.043
79	0.027	-0.018	-0.013	-0.005	0.007
80	0.023	0.024	0.001	-0.005	-0.012
81	-0.014	-0.003	-0.012	-0.009	-0.008

82	-0.017	0.000	0.013	-0.032	0.010
83	-0.016	0.006	0.008	0.004	-0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	0.020	1.000			
73	-0.002	-0.004	1.000		
74	-0.083	-0.049	0.006	1.000	
75	0.016	0.018	-0.057	0.028	1.000
76	-0.021	0.019	-0.009	-0.010	-0.017
77	-0.015	0.012	-0.008	0.012	0.041
78	0.084	0.039	0.011	-0.037	-0.062
79	0.015	0.005	0.016	-0.017	0.002
80	0.024	-0.004	-0.016	0.003	0.023
81	-0.034	-0.010	-0.005	0.046	0.123
82	-0.023	-0.021	0.002	-0.005	-0.075
83	-0.017	0.003	-0.008	0.010	-0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	1.000				
77	0.012	1.000			
78	0.004	-0.061	1.000		
79	0.007	0.230	0.013	1.000	
80	-0.017	0.187	-0.001	-0.015	1.000
81	-0.014	0.012	0.022	0.038	-0.015
82	-0.008	-0.073	-0.013	-0.029	-0.018
83	0.006	0.032	-0.064	-0.021	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	81	82	83
81	1.000		
82	0.015	1.000	
83	-0.017	0.139	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.773	53
200	1.165	61
300	1.007	72
400	1.010	48
500	1.065	58
600	1.051	53
700	1.064	53
800	1.034	53
900	1.026	53
1000	1.062	58
1100	1.084	58
1200	1.101	58
1300	1.084	58
1400	1.061	58
1500	1.066	58
1600	1.070	58
1700	1.078	58
1800	1.086	58
1900	1.097	58
2000	1.114	58
2100	1.093	61
2200	1.044	61
2300	1.061	61
2400	1.065	61
2500	1.046	61
2600	1.038	61
2700	1.037	61
2800	1.036	61
2900	1.034	61
3000	1.032	61
3100	1.029	61
3200	1.011	61
3300	1.002	83

3400	1.001	83
3500	1.003	61
3600	1.005	61
3700	1.008	53
3800	1.007	61
3900	1.006	58
4000	1.007	58
4100	1.005	61
4200	1.002	61
4300	1.002	61
4400	1.006	61
4500	1.004	61
4600	1.004	58
4700	1.004	58
4800	1.004	58
4900	1.005	58
5000	1.003	58

Effects of a single practice, accumulated overtime

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.466	0.138	0.000	53.45%	0.000	0.000	0.000



	58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
SINSQU		0.466	0.138	0.000	53.45%	0.000	0.000	0.000
	58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

PROBLEM OCCURRED IN THE COMPUTATION OF THE POSTERIOR PREDICTIVE P-VALUE.  
THIS MAY BE DUE TO A SINGULAR SAMPLE VARIANCE COVARIANCE MATRIX, SUCH AS  
WITH ZERO SAMPLE VARIANCES.

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

#### MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.167	0.051	0.001	0.068	0.264	*
CHOICE15	0.026	0.039	0.253	-0.053	0.104	

BULLY15	0.107	0.059	0.026	-0.001	0.228	
DUTIES15	-0.080	0.043	0.027	-0.168	0.003	
PRESS15	-0.049	0.040	0.111	-0.124	0.031	
KES15	0.805	0.094	0.000	0.618	0.993	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*
PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*
CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*
BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*
PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*
Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	
Variances						
PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*

DUTIES15	1.031	0.044	0.000	0.947	1.123	*
Between Level						
KESCAT16 ON						
SINGLE	-0.047	1.602	0.490	-3.157	3.144	
SINSQU	-0.001	1.604	0.499	-3.193	3.098	
SINGLE WITH						
SINSQU	0.248	0.048	0.000	0.172	0.361	*
Means						
SINGLE	0.464	0.067	0.000	0.336	0.599	*
SINSQU	0.465	0.067	0.000	0.340	0.598	*
Thresholds						
KESCAT16\$1	-0.488	0.081	0.000	-0.662	-0.342	*
Variances						
SINGLE	0.266	0.050	0.000	0.187	0.382	*
SINSQU	0.266	0.050	0.000	0.190	0.384	*
Residual Variances						
KESCAT16	0.035	0.041	0.000	0.002	0.154	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

		Posterior	One-Tailed	95% C.I.		
		S.D.	P-Value	Lower 2.5%	Upper 2.5%	Significance
Within Level						
KESCAT16	ON					
PHY15		0.124	0.001	0.050	0.193	*
CHOICE15		0.025	0.253	-0.051	0.098	
BULLY15		0.073	0.026	-0.001	0.156	
DUTIES15		-0.071	0.027	-0.148	0.003	
PRESS15		-0.046	0.111	-0.118	0.029	
KES15		0.397	0.000	0.314	0.474	*
KES15	WITH					

PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
KESCAT16 ON SINGLE	-0.106	1.970	0.490	-2.945	2.963	

SINSQU	-0.001	1.976	0.499	-2.966	2.881	
SINGLE WITH SINSQU	0.936	0.016	0.000	0.898	0.961	*
Means						
SINGLE	0.908	0.154	0.000	0.611	1.208	*
SINSQU	0.906	0.154	0.000	0.616	1.208	*
Thresholds						
KESCAT16\$1	-1.559	1.242	0.000	-4.715	-0.596	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.410	0.301	0.000	0.018	0.973	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.224	0.034	0.000	0.159	0.292

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.590	0.301	0.000	0.027	0.982

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

THETA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# THETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
PRESS15	0	
DUTIES15	0	0

# ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0	1	2	3	4

# ALPHA

	PRESS15	DUTIES15
	<hr/>	<hr/>
	5	6

# BETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

# BETA

	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	11	12

PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 0	<hr/>	<hr/>	<hr/>	<hr/>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
	PRESS15	DUTIES15
PRESS15	<hr/> 27	<hr/>
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<hr/> 42

NU		
KESCAT16	SINGLE	SINSQU
<hr/> 0	<hr/> 0	<hr/> 0

LAMBDA		
KESCAT16	SINGLE	SINSQU



KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	<u>0</u>	<u></u>	<u></u>
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	<u>0</u>	<u></u>	<u></u>
		34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	<u>0</u>	<u>36</u>	<u>37</u>
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	<u>38</u>	<u></u>	<u></u>
SINGLE	0	39	
SINSQU	0	40	41

# STARTING VALUES FOR WITHIN

# TAU

KESCAT16	<u></u>
	0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

NU	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000

BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.000
DUTIES15	0.000

ALPHA		PHY15	KES15	CHOICE15	BULLY15
KESCAT16					
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000	0.000

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA		PHY15	KES15	CHOICE15	BULLY15
KESCAT16					
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000

PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU		
KESCAT16	SINGLE	SINSQU
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

	LAMBDA		
	KESCAT16	SINGLE	SINSQU
KESCAT16	<u>1.000</u>	<u>0.000</u>	<u>0.000</u>
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.495	0.495

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.125	
SINSQU	0.000	0.000	0.125

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361

Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925441D-04	-0.649589D-04	0.111155D-02		

4	0.451895D-04	0.736549D-04	-0.136572D-03	0.544174D-03	
5	0.101062D-03	0.445933D-04	-0.215388D-03	0.177206D-03	0.108754D-02
6	-0.408358D-04	-0.473475D-04	0.976657D-04	-0.161981D-03	-0.253057D-03
7	-0.275352D-04	-0.141303D-04	-0.681855D-04	-0.125552D-04	0.232986D-04
8	0.660222D-04	-0.769359D-05	0.761643D-04	-0.204690D-04	-0.621374D-04
9	0.147238D-04	0.124947D-04	0.386175D-04	0.200772D-04	0.615238D-04
10	-0.115496D-04	0.293625D-04	0.321895D-04	0.129211D-04	0.404788D-04
11	0.342021D-04	0.954012D-05	-0.186793D-04	-0.109798D-04	0.125449D-04
12	0.197037D-06	0.142232D-04	-0.159586D-04	0.115890D-04	-0.913356D-04
13	0.611668D-04	0.212395D-04	-0.183511D-04	0.547777D-06	0.322924D-04
14	-0.108317D-05	0.118216D-04	-0.293252D-05	-0.151547D-04	-0.196793D-04
15	0.586083D-05	0.141453D-05	0.195727D-04	-0.166293D-04	-0.973817D-05
16	-0.436402D-04	-0.212686D-04	0.228405D-05	0.728781D-05	-0.174130D-04
17	0.577668D-06	0.109608D-04	-0.787712D-05	0.182128D-06	0.138571D-04
18	-0.383195D-04	-0.124738D-05	-0.340936D-04	0.775892D-05	0.209223D-04
19	0.997928D-05	0.174727D-04	0.153158D-04	-0.702817D-05	-0.129090D-04
20	0.517492D-05	0.215514D-05	0.644253D-06	0.934211D-05	0.687763D-05
21	0.833120D-05	-0.828939D-05	0.110358D-04	0.130257D-05	-0.288487D-04
22	0.169801D-04	0.430975D-05	-0.562518D-05	0.192253D-04	0.568106D-04
23	0.254758D-04	0.125245D-04	0.829468D-05	-0.152958D-04	0.219479D-04
24	0.452126D-05	0.212065D-05	0.163371D-04	0.963404D-05	0.159362D-04
25	-0.284193D-05	-0.390197D-05	-0.173971D-04	0.186685D-04	-0.510787D-05
26	-0.326910D-05	-0.116862D-04	0.201549D-05	0.236704D-04	0.304757D-04
27	0.343315D-04	-0.452341D-05	-0.246313D-04	0.183858D-04	0.476292D-04
28	-0.949390D-05	-0.209391D-04	-0.877561D-05	-0.345154D-04	-0.194348D-04
29	-0.212605D-05	0.179398D-05	-0.109396D-04	-0.408454D-05	0.198162D-04
30	-0.611777D-05	-0.126151D-04	-0.169646D-04	0.102614D-04	0.467840D-04
31	-0.881334D-05	0.161355D-05	0.306119D-04	-0.185086D-04	-0.476938D-05
32	-0.429011D-04	0.405095D-05	0.729387D-04	-0.344792D-04	-0.114667D-04
33	-0.107852D-05	0.622155D-05	-0.419985D-04	0.265089D-04	-0.689877D-05
34	-0.132101D-04	-0.189792D-04	0.219430D-04	0.718578D-04	0.131367D-04
35	-0.661865D-05	-0.151799D-04	-0.587882D-06	0.616869D-04	0.138798D-04
36	-0.137525D-02	0.937821D-04	0.200974D-02	0.431627D-03	0.134892D-02
37	0.144688D-02	-0.349400D-04	-0.204121D-02	-0.334431D-03	-0.116533D-02
38	0.119942D-04	0.719201D-05	0.132116D-04	0.546624D-04	-0.803436D-05
39	-0.201465D-04	-0.432063D-05	-0.419851D-04	-0.851466D-05	0.847955D-04
40	-0.222533D-04	-0.742984D-05	-0.254915D-04	-0.645806D-05	0.861628D-04
41	-0.238090D-04	-0.898591D-05	-0.141972D-04	-0.468083D-05	0.864148D-04
42	0.660901D-04	0.337366D-04	0.147137D-04	0.793939D-04	0.149090D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

6

7

8

9

10

-----

6	0.881826D-03				
7	-0.502715D-05	0.258819D-02			
8	-0.117201D-04	-0.570514D-03	0.890988D-02		
9	0.560100D-05	0.862309D-04	0.461158D-03	0.151062D-02	
10	-0.271755D-05	0.227670D-04	-0.191946D-03	0.152810D-03	0.350827D-02
11	-0.166893D-04	-0.273133D-03	-0.106085D-03	0.421707D-04	-0.289308D-03
12	0.189724D-04	-0.157467D-04	0.406991D-03	-0.177519D-03	0.323924D-03
13	-0.161128D-04	0.769670D-04	0.575171D-05	0.880714D-05	-0.191122D-04
14	0.166904D-04	0.270449D-04	-0.401657D-04	0.469395D-05	0.244075D-04
15	0.692367D-05	-0.867274D-05	-0.176615D-04	0.141927D-04	0.359587D-04
16	-0.201822D-04	0.421187D-05	0.550587D-05	0.119983D-04	0.429692D-05
17	-0.197630D-04	0.224566D-05	-0.268915D-04	-0.712487D-05	0.666414D-05
18	-0.428762D-04	0.515279D-04	-0.668046D-04	-0.211195D-04	0.306101D-04
19	0.116423D-04	-0.161913D-04	-0.729898D-05	0.198494D-05	-0.272907D-04
20	0.329587D-05	-0.111213D-04	0.611044D-04	0.670126D-05	-0.118600D-04
21	0.473119D-05	0.686718D-05	-0.144084D-03	-0.308275D-04	0.110867D-04
22	-0.325170D-04	0.156313D-04	0.593330D-04	-0.186914D-05	-0.249287D-04
23	-0.410176D-05	-0.858151D-05	0.723731D-05	-0.173222D-04	-0.274970D-04
24	-0.332027D-05	0.128931D-04	-0.254152D-04	0.210119D-04	0.161321D-04
25	-0.214984D-04	0.275222D-04	-0.136245D-03	-0.201326D-04	-0.521256D-04
26	-0.224897D-05	0.274256D-04	0.894025D-04	0.431075D-04	0.523475D-05
27	-0.133051D-04	0.120481D-03	0.543558D-04	0.566712D-04	0.823513D-04
28	0.255239D-04	-0.184550D-04	-0.791836D-04	0.321207D-04	0.488607D-04
29	-0.446154D-05	0.184423D-04	-0.492230D-04	0.398876D-05	-0.188010D-04
30	-0.525242D-05	0.309860D-05	0.114594D-03	0.257960D-05	0.837263D-04
31	0.262859D-05	-0.113137D-04	-0.109528D-03	-0.216527D-04	0.916407D-05
32	-0.579307D-05	0.243759D-04	-0.128741D-03	-0.372612D-04	0.406008D-05
33	0.387342D-04	0.488982D-04	0.118815D-03	0.127854D-04	0.958363D-05
34	-0.572156D-04	0.206061D-04	-0.159110D-03	-0.169903D-03	-0.148515D-04
35	-0.658424D-04	0.527191D-04	-0.166938D-03	-0.171650D-03	-0.349023D-04
36	0.731327D-03	0.391623D-02	-0.914228D-04	-0.267888D-03	0.862164D-03
37	-0.792182D-03	-0.436123D-02	-0.187503D-03	0.141809D-03	-0.148964D-02
38	0.341587D-04	0.909831D-04	0.219684D-03	0.179989D-03	0.639786D-04
39	-0.724301D-04	0.467155D-05	0.762829D-04	-0.398678D-04	-0.768493D-04
40	-0.598578D-04	-0.218523D-05	0.455010D-04	-0.356305D-04	-0.583075D-04
41	-0.471157D-04	-0.122924D-04	0.151848D-04	-0.293100D-04	-0.419128D-04
42	-0.410030D-04	-0.397166D-03	-0.105883D-02	0.288800D-04	-0.497550D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.160290D-02				
12	0.305937D-03	0.184181D-02			



13	-0.276839D-05	-0.207525D-04	0.887202D-03		
14	0.110787D-04	0.277611D-04	0.144167D-03	0.209516D-03	
15	-0.374032D-05	0.317116D-05	0.245868D-04	0.632888D-04	0.178540D-03
16	0.886291D-05	-0.384496D-04	-0.152796D-03	-0.702382D-04	-0.312448D-04
17	0.426769D-04	-0.186833D-04	-0.515468D-04	-0.385923D-04	-0.503933D-04
18	-0.519802D-04	0.971168D-04	0.342254D-04	0.115842D-04	-0.744653D-05
19	-0.196552D-04	0.813632D-05	0.671883D-04	0.296127D-04	0.604364D-05
20	-0.311224D-04	-0.675515D-05	0.115386D-04	0.103532D-04	0.370412D-04
21	0.304153D-04	0.117955D-04	-0.192742D-04	-0.531644D-05	-0.922548D-05
22	0.310281D-05	0.693140D-05	0.109766D-04	-0.118971D-04	0.891446D-05
23	0.100815D-04	0.402064D-04	0.167279D-03	0.404972D-04	0.601621D-05
24	-0.235344D-04	0.116080D-04	0.306019D-04	0.384781D-04	0.344881D-04
25	0.363476D-04	-0.318141D-04	-0.227991D-04	-0.347909D-04	-0.407118D-05
26	0.133670D-06	0.148431D-04	0.648791D-05	0.160322D-05	0.119011D-04
27	0.437156D-04	0.818266D-04	0.386068D-04	-0.102919D-04	-0.152009D-04
28	-0.982155D-05	-0.198081D-04	-0.849075D-04	-0.497657D-04	-0.142770D-04
29	0.350483D-04	0.221198D-04	-0.125924D-04	-0.204260D-04	-0.363784D-04
30	-0.100676D-05	-0.263781D-05	0.759320D-04	0.268220D-04	0.103216D-04
31	0.780334D-06	0.168055D-05	-0.109764D-04	-0.693270D-05	-0.112138D-04
32	-0.113782D-04	0.218361D-04	0.793138D-05	-0.177096D-04	-0.668245D-06
33	-0.362016D-05	0.444494D-05	0.344617D-04	0.559317D-05	0.132537D-05
34	-0.586135D-05	0.109192D-04	0.105727D-04	0.982821D-05	0.235150D-04
35	-0.184694D-04	0.467007D-04	0.516809D-05	-0.215136D-05	0.650318D-05
36	-0.613407D-03	0.703416D-03	-0.197505D-03	0.489717D-03	0.374433D-03
37	0.648508D-03	-0.594989D-03	0.126915D-03	-0.564784D-03	-0.369455D-03
38	0.116569D-03	0.633711D-04	0.833171D-04	0.463194D-04	0.103890D-04
39	-0.834741D-04	-0.130794D-04	0.134218D-04	0.448893D-05	0.117504D-04
40	-0.668016D-04	-0.443356D-05	-0.450829D-05	-0.594953D-05	0.753765D-05
41	-0.479435D-04	0.583866D-05	-0.219812D-04	-0.124627D-04	0.701273D-05
42	-0.297535D-04	0.960684D-04	0.225176D-04	-0.508407D-04	-0.219341D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.769030D-03				
17	0.156226D-03	0.354740D-03			
18	-0.227081D-03	-0.189519D-03	0.243863D-02		
19	-0.865792D-04	-0.203864D-04	0.315486D-04	0.382753D-03	
20	-0.222557D-04	-0.469612D-04	-0.745684D-05	0.626849D-04	0.180149D-03
21	0.291822D-04	0.785650D-04	-0.291533D-03	-0.493654D-04	-0.695976D-04
22	-0.111390D-04	-0.190912D-04	0.505186D-04	0.403815D-04	0.785230D-04
23	-0.105877D-03	-0.310588D-04	0.594799D-04	0.140426D-03	0.268056D-04
24	-0.243767D-04	-0.662525D-04	0.113905D-04	0.237699D-04	0.630504D-04

25	0.126728D-03	0.658444D-04	-0.445678D-03	-0.677889D-06	-0.137423D-04
26	-0.289716D-05	-0.194791D-04	0.621444D-04	0.585921D-04	0.497181D-04
27	-0.685060D-05	-0.268242D-04	0.178430D-03	0.227405D-04	0.209064D-04
28	0.981921D-04	0.245439D-04	-0.700928D-04	-0.123492D-03	-0.325911D-04
29	0.251603D-04	0.505835D-04	0.576039D-05	-0.167939D-04	-0.546319D-04
30	-0.613098D-04	-0.711203D-04	0.278712D-03	0.387340D-04	0.125711D-04
31	0.720549D-05	0.232449D-04	-0.153202D-05	-0.352276D-04	-0.495768D-04
32	0.708213D-05	0.326880D-05	-0.323997D-04	-0.122145D-04	-0.577471D-05
33	-0.296623D-05	-0.142416D-04	-0.379628D-04	-0.558766D-07	0.177309D-04
34	0.451310D-04	-0.640735D-04	0.149112D-03	0.445236D-04	0.336382D-06
35	0.571524D-04	-0.365293D-04	0.139763D-03	0.479131D-04	-0.141314D-04
36	0.149519D-02	0.884094D-03	0.716010D-03	0.217078D-03	0.310795D-03
37	-0.151183D-02	-0.872532D-03	-0.679421D-03	-0.206150D-03	-0.267444D-03
38	-0.369623D-04	-0.740792D-05	0.743918D-04	0.569536D-05	0.398324D-05
39	0.781974D-05	-0.115156D-04	-0.888605D-04	-0.260867D-04	-0.141904D-04
40	0.146822D-04	-0.595675D-05	-0.885774D-04	-0.295186D-04	-0.126891D-04
41	0.177683D-04	-0.593263D-05	-0.869672D-04	-0.348774D-04	-0.148885D-04
42	-0.147884D-04	0.148029D-04	-0.342339D-04	0.523761D-04	0.299448D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679747D-03				
22	-0.137461D-03	0.652636D-03			
23	-0.300221D-04	0.352358D-04	0.732774D-03		
24	-0.239516D-04	0.149371D-04	0.119144D-03	0.338052D-03	
25	0.221881D-03	-0.480824D-04	-0.103074D-03	-0.980421D-04	0.129242D-02
26	-0.139734D-03	0.196793D-03	0.696522D-04	0.830389D-04	-0.137380D-03
27	-0.645041D-04	0.874858D-04	0.222555D-03	0.134548D-03	-0.395052D-03
28	0.286571D-04	-0.260068D-04	-0.206211D-03	-0.374920D-04	0.515359D-04
29	0.957553D-05	-0.238927D-04	-0.251901D-04	-0.784260D-04	0.282699D-04
30	-0.168792D-03	0.559493D-04	0.104525D-03	0.317097D-04	-0.300925D-03
31	0.801201D-04	-0.186280D-03	-0.155868D-04	-0.182935D-04	0.401917D-04
32	0.216905D-04	-0.449534D-04	-0.836283D-04	-0.752700D-04	0.166233D-03
33	-0.189979D-04	0.252816D-04	0.296307D-04	0.413978D-04	-0.418611D-04
34	-0.105147D-03	0.426622D-04	-0.263137D-04	0.245910D-04	-0.677324D-04
35	-0.944553D-04	0.614882D-04	-0.213650D-04	0.234478D-04	-0.937313D-04
36	0.143932D-02	0.805572D-03	-0.437726D-03	-0.361074D-03	-0.124473D-02
37	-0.148979D-02	-0.741357D-03	0.352860D-03	0.304444D-03	0.134763D-02
38	0.191572D-04	0.163094D-04	0.377641D-04	0.180414D-04	0.121960D-04
39	0.215674D-04	-0.265113D-04	-0.259718D-04	0.123268D-04	0.146113D-04
40	0.178363D-04	-0.144519D-04	-0.242409D-04	0.178007D-04	-0.310945D-05
41	0.173939D-04	-0.190965D-05	-0.198767D-04	0.241321D-04	-0.169788D-04

42 0.928798D-05 -0.305253D-05 0.191616D-04 -0.716325D-05 0.958793D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650034D-03				
27	0.437880D-03	0.241812D-02			
28	-0.322620D-04	-0.687191D-04	0.686000D-03		
29	-0.368436D-04	-0.517740D-04	0.112363D-03	0.287867D-03	
30	0.842874D-04	0.150264D-03	-0.120986D-03	-0.785377D-04	0.112447D-02
31	-0.185721D-03	-0.123284D-03	0.743774D-04	0.730077D-04	-0.167899D-03
32	-0.234945D-03	-0.575825D-03	0.152301D-03	0.920701D-04	-0.231405D-03
33	0.832652D-04	0.153456D-03	-0.160448D-03	-0.131444D-03	0.271607D-03
34	0.289786D-04	-0.170456D-04	0.784378D-05	-0.360008D-05	0.243954D-04
35	0.543682D-04	-0.950322D-05	0.184866D-05	0.153875D-06	0.428610D-04
36	-0.201153D-03	-0.176215D-04	-0.128310D-02	-0.871145D-03	-0.104582D-02
37	0.175360D-03	-0.204704D-03	0.125662D-02	0.911606D-03	0.100112D-02
38	-0.423957D-04	-0.483729D-05	-0.442351D-04	-0.437676D-05	0.671587D-04
39	0.386980D-04	0.380040D-04	0.441463D-04	0.282287D-04	-0.499390D-04
40	0.393749D-04	0.593910D-04	0.358148D-04	0.260235D-04	-0.392947D-04
41	0.429057D-04	0.761367D-04	0.259668D-04	0.208127D-04	-0.282498D-04
42	-0.603620D-04	-0.968898D-04	-0.389657D-04	0.187615D-04	0.174777D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597731D-03				
32	0.241968D-03	0.115793D-02			
33	-0.349967D-03	-0.537345D-03	0.195431D-02		
34	0.192072D-04	-0.875168D-04	0.308371D-04	0.455128D-02	
35	0.827910D-05	-0.103824D-03	0.383464D-04	0.419691D-02	0.449184D-02
36	-0.273906D-03	0.828707D-03	0.345784D-03	0.129954D-03	0.174844D-02
37	0.237292D-03	-0.868397D-03	-0.115133D-03	-0.192679D-03	-0.180484D-02
38	0.623222D-05	-0.173144D-04	0.325542D-04	-0.184084D-04	-0.494917D-05
39	0.494265D-04	0.145894D-04	-0.362595D-04	-0.130232D-04	-0.122869D-04
40	0.554914D-04	0.181749D-05	-0.507212D-04	-0.425276D-04	-0.352275D-04
41	0.631399D-04	-0.143514D-04	-0.591960D-04	-0.805406D-04	-0.679940D-04
42	-0.119181D-04	0.235204D-04	0.699433D-04	0.338754D-05	-0.824672D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

36	37	38	39	40
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36	0.256605D+01				
37	-0.256135D+01	0.256996D+01			
38	-0.260812D-02	0.201136D-02	0.166469D-02		
39	0.249143D-02	-0.235074D-02	-0.934487D-04	0.247724D-02	
40	0.227903D-02	-0.213115D-02	-0.735952D-04	0.231972D-02	0.232018D-02
41	0.170922D-02	-0.153152D-02	-0.619030D-04	0.218063D-02	0.232188D-02
42	0.209380D-03	0.623255D-02	-0.334198D-03	0.162968D-04	0.158114D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
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41	0.249026D-02	
42	0.383743D-04	0.654977D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
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1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.022	-0.017	-0.040	-0.011	0.014
8	0.028	-0.005	0.024	-0.009	-0.020
9	0.015	0.019	0.030	0.022	0.048
10	-0.008	0.030	0.016	0.009	0.021
11	0.035	0.014	-0.014	-0.012	0.010
12	0.000	0.020	-0.011	0.012	-0.065
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.023	-0.015	-0.020
20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026

25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.023
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.008	-0.017	0.010	0.046	0.006
35	-0.004	-0.014	0.000	0.039	0.006
36	-0.035	0.004	0.038	0.012	0.026
37	0.037	-0.001	-0.038	-0.009	-0.022
38	0.012	0.011	0.010	0.057	-0.006
39	-0.016	-0.005	-0.025	-0.007	0.052
40	-0.019	-0.009	-0.016	-0.006	0.054
41	-0.019	-0.011	-0.009	-0.004	0.053
42	0.033	0.025	0.005	0.042	0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.003	1.000			
8	-0.004	-0.119	1.000		
9	0.005	0.044	0.126	1.000	
10	-0.002	0.008	-0.034	0.066	1.000
11	-0.014	-0.134	-0.028	0.027	-0.122
12	0.015	-0.007	0.100	-0.106	0.127
13	-0.018	0.051	0.002	0.008	-0.011
14	0.039	0.037	-0.029	0.008	0.028
15	0.017	-0.013	-0.014	0.027	0.045
16	-0.025	0.003	0.002	0.011	0.003
17	-0.035	0.002	-0.015	-0.010	0.006
18	-0.029	0.021	-0.014	-0.011	0.010
19	0.020	-0.016	-0.004	0.003	-0.024
20	0.008	-0.016	0.048	0.013	-0.015
21	0.006	0.005	-0.059	-0.030	0.007
22	-0.043	0.012	0.025	-0.002	-0.016
23	-0.005	-0.006	0.003	-0.016	-0.017
24	-0.006	0.014	-0.015	0.029	0.015
25	-0.020	0.015	-0.040	-0.014	-0.024
26	-0.003	0.021	0.037	0.044	0.003

27	-0.009	0.048	0.012	0.030	0.028
28	0.033	-0.014	-0.032	0.032	0.031
29	-0.009	0.021	-0.031	0.006	-0.019
30	-0.005	0.002	0.036	0.002	0.042
31	0.004	-0.009	-0.047	-0.023	0.006
32	-0.006	0.014	-0.040	-0.028	0.002
33	0.030	0.022	0.028	0.007	0.004
34	-0.029	0.006	-0.025	-0.065	-0.004
35	-0.033	0.015	-0.026	-0.066	-0.009
36	0.015	0.048	-0.001	-0.004	0.009
37	-0.017	-0.053	-0.001	0.002	-0.016
38	0.028	0.044	0.057	0.114	0.026
39	-0.049	0.002	0.016	-0.021	-0.026
40	-0.042	-0.001	0.010	-0.019	-0.020
41	-0.032	-0.005	0.003	-0.015	-0.014
42	-0.017	-0.096	-0.139	0.009	-0.104

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.178	1.000			
13	-0.002	-0.016	1.000		
14	0.019	0.045	0.334	1.000	
15	-0.007	0.006	0.062	0.327	1.000
16	0.008	-0.032	-0.185	-0.175	-0.084
17	0.057	-0.023	-0.092	-0.142	-0.200
18	-0.026	0.046	0.023	0.016	-0.011
19	-0.025	0.010	0.115	0.105	0.023
20	-0.058	-0.012	0.029	0.053	0.207
21	0.029	0.011	-0.025	-0.014	-0.026
22	0.003	0.006	0.014	-0.032	0.026
23	0.009	0.035	0.207	0.103	0.017
24	-0.032	0.015	0.056	0.145	0.140
25	0.025	-0.021	-0.021	-0.067	-0.008
26	0.000	0.014	0.009	0.004	0.035
27	0.022	0.039	0.026	-0.014	-0.023
28	-0.009	-0.018	-0.109	-0.131	-0.041
29	0.052	0.030	-0.025	-0.083	-0.160
30	-0.001	-0.002	0.076	0.055	0.023
31	0.001	0.002	-0.015	-0.020	-0.034
32	-0.008	0.015	0.008	-0.036	-0.001
33	-0.002	0.002	0.026	0.009	0.002

34	-0.002	0.004	0.005	0.010	0.026
35	-0.007	0.016	0.003	-0.002	0.007
36	-0.010	0.010	-0.004	0.021	0.017
37	0.010	-0.009	0.003	-0.024	-0.017
38	0.071	0.036	0.069	0.078	0.019
39	-0.042	-0.006	0.009	0.006	0.018
40	-0.035	-0.002	-0.003	-0.009	0.012
41	-0.024	0.003	-0.015	-0.017	0.011
42	-0.009	0.028	0.009	-0.043	-0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.044	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.008	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.050	0.045	0.034	0.000
35	0.031	-0.029	0.042	0.037	-0.016
36	0.034	0.029	0.009	0.007	0.014
37	-0.034	-0.029	-0.009	-0.007	-0.012
38	-0.033	-0.010	0.037	0.007	0.007
39	0.006	-0.012	-0.036	-0.027	-0.021
40	0.011	-0.007	-0.037	-0.031	-0.020
41	0.013	-0.006	-0.035	-0.036	-0.022
42	-0.007	0.010	-0.009	0.033	0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.060	0.025	-0.014	0.020	-0.028
35	-0.054	0.036	-0.012	0.019	-0.039
36	0.034	0.020	-0.010	-0.012	-0.022
37	-0.036	-0.018	0.008	0.010	0.023
38	0.018	0.016	0.034	0.024	0.008
39	0.017	-0.021	-0.019	0.013	0.008
40	0.014	-0.012	-0.019	0.020	-0.002
41	0.013	-0.001	-0.015	0.026	-0.009
42	0.004	-0.001	0.009	-0.005	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.017	-0.005	0.004	-0.003	0.011
35	0.032	-0.003	0.001	0.000	0.019
36	-0.005	0.000	-0.031	-0.032	-0.019
37	0.004	-0.003	0.030	0.034	0.019
38	-0.041	-0.002	-0.041	-0.006	0.049
39	0.030	0.016	0.034	0.033	-0.030
40	0.032	0.025	0.028	0.032	-0.024



41	0.034	0.031	0.020	0.025	-0.017
42	-0.029	-0.024	-0.018	0.014	0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.012	-0.038	0.010	1.000	
35	0.005	-0.046	0.013	0.928	1.000
36	-0.007	0.015	0.005	0.001	0.016
37	0.006	-0.016	-0.002	-0.002	-0.017
38	0.006	-0.012	0.018	-0.007	-0.002
39	0.041	0.009	-0.016	-0.004	-0.004
40	0.047	0.001	-0.024	-0.013	-0.011
41	0.052	-0.008	-0.027	-0.024	-0.020
42	-0.006	0.009	0.020	0.001	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.997	1.000			
38	-0.040	0.031	1.000		
39	0.031	-0.029	-0.046	1.000	
40	0.030	-0.028	-0.037	0.968	1.000
41	0.021	-0.019	-0.030	0.878	0.966
42	0.002	0.048	-0.101	0.004	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.010	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.010	38
300	1.005	13
400	1.002	38
500	1.008	38
600	1.004	38
700	1.002	6
800	1.004	42
900	1.004	42
1000	1.001	42

Effects of a single practice, active governance

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390

	58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
SINSQU		0.937	0.067	0.152	10.34%	0.203	0.230	0.230
	58.000	0.582	-1.992	1.742	18.97%	1.716	1.716	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.630 28.631

Posterior Predictive P-Value 0.529

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.164	0.051	0.001	0.063	0.261	*
CHOICE15	0.030	0.039	0.225	-0.049	0.108	
BULLY15	0.108	0.059	0.023	0.001	0.231	*
DUTIES15	-0.081	0.043	0.027	-0.170	0.002	
PRESS15	-0.049	0.040	0.113	-0.124	0.032	
KES15	0.799	0.094	0.000	0.612	0.985	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.087	0.061	0.066	-0.217	0.033	
SINSQU	-0.057	0.076	0.211	-0.210	0.090	
SINGLE WITH						
SINSQU	0.094	0.101	0.144	-0.097	0.302	
Means						
SINGLE	0.122	0.126	0.163	-0.122	0.373	
SINSQU	0.946	0.105	0.000	0.731	1.149	*
Thresholds						
KESCAT16\$1	-0.530	0.084	0.000	-0.701	-0.370	*
Variances						
SINGLE	0.932	0.175	0.000	0.663	1.368	*
SINSQU	0.598	0.112	0.000	0.421	0.853	*
Residual Variances						
KESCAT16	0.029	0.037	0.000	0.001	0.145	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.121	0.037	0.001	0.046	0.191	*
CHOICE15	0.028	0.037	0.225	-0.047	0.103	
BULLY15	0.074	0.040	0.023	0.001	0.158	*

DUTIES15	-0.073	0.038	0.027	-0.149	0.002	
PRESS15	-0.046	0.038	0.113	-0.117	0.030	
KES15	0.394	0.040	0.000	0.311	0.470	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	



Between Level

KESCAT16 ON						
SINGLE	-0.421	0.265	0.066	-0.867	0.152	
SINSQU	-0.208	0.271	0.211	-0.735	0.325	
SINGLE WITH						
SINSQU	0.129	0.126	0.144	-0.132	0.372	
Means						
SINGLE	0.126	0.130	0.163	-0.119	0.381	
SINSQU	1.219	0.173	0.000	0.892	1.563	*
Thresholds						
KESCAT16\$1	-2.491	1.197	0.000	-5.897	-1.186	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.674	0.238	0.000	0.086	0.969	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.221	0.034	0.000	0.158	0.288

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.326	0.238	0.000	0.031	0.914

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>          </u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>          </u>
42

NU		
KESCAT16	SINGLE	SINSQU
<u>          </u>	<u>          </u>	<u>          </u>

0                      0                      0

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

---

0.000      0.000      0.000      0.000      0.000

NU  
PRESS15      DUTIES15  

---

0.000      0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000

	DUTIES15
DUTIES15	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>          </u>
-0.352

NU
KESCAT16
<u>0.000</u>

SINGLE
<u>0.000</u>

SINSQU
<u>0.000</u>

LAMBDA



	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.208	0.873

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.415	
SINSQU	0.000	0.000	0.282

# PRIORS FOR ALL PARAMETERS

	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925472D-04	-0.649504D-04	0.111150D-02		
4	0.451908D-04	0.736564D-04	-0.136557D-03	0.544182D-03	
5	0.101056D-03	0.445928D-04	-0.215372D-03	0.177227D-03	0.108754D-02
6	-0.408428D-04	-0.473475D-04	0.976635D-04	-0.161987D-03	-0.253056D-03
7	-0.261308D-04	-0.134709D-04	-0.683319D-04	-0.112592D-04	0.252574D-04
8	0.666738D-04	-0.769281D-05	0.775057D-04	-0.165325D-04	-0.633921D-04
9	0.142890D-04	0.124975D-04	0.424260D-04	0.160845D-04	0.628125D-04
10	-0.962641D-05	0.327934D-04	0.316040D-04	0.112668D-04	0.412202D-04
11	0.351383D-04	0.105324D-04	-0.183879D-04	-0.105535D-04	0.126737D-04
12	0.994843D-06	0.154512D-04	-0.183390D-04	0.141353D-04	-0.928515D-04
13	0.611672D-04	0.212396D-04	-0.183355D-04	0.541183D-06	0.322886D-04
14	-0.108352D-05	0.118218D-04	-0.293270D-05	-0.151625D-04	-0.196818D-04
15	0.586011D-05	0.141496D-05	0.195679D-04	-0.166326D-04	-0.973966D-05
16	-0.436344D-04	-0.212706D-04	0.228974D-05	0.728331D-05	-0.173857D-04
17	0.584216D-06	0.109609D-04	-0.788779D-05	0.170320D-06	0.138758D-04
18	-0.383070D-04	-0.125866D-05	-0.341420D-04	0.772723D-05	0.209445D-04
19	0.998302D-05	0.174672D-04	0.153445D-04	-0.703187D-05	-0.129138D-04
20	0.517626D-05	0.214902D-05	0.664478D-06	0.934347D-05	0.687584D-05
21	0.830737D-05	-0.827486D-05	0.110347D-04	0.128603D-05	-0.288454D-04
22	0.169949D-04	0.430707D-05	-0.561253D-05	0.192272D-04	0.568089D-04
23	0.254782D-04	0.125244D-04	0.828103D-05	-0.153041D-04	0.219556D-04
24	0.452080D-05	0.212181D-05	0.163359D-04	0.963360D-05	0.159433D-04
25	-0.285730D-05	-0.389822D-05	-0.173743D-04	0.186657D-04	-0.513548D-05
26	-0.326565D-05	-0.116849D-04	0.200615D-05	0.236706D-04	0.304905D-04
27	0.343311D-04	-0.451037D-05	-0.246591D-04	0.183773D-04	0.476616D-04
28	-0.949770D-05	-0.209370D-04	-0.878639D-05	-0.345085D-04	-0.194213D-04
29	-0.212921D-05	0.179700D-05	-0.109509D-04	-0.408271D-05	0.198190D-04
30	-0.609232D-05	-0.126418D-04	-0.169536D-04	0.102361D-04	0.467607D-04
31	-0.883168D-05	0.160934D-05	0.306226D-04	-0.185068D-04	-0.475320D-05
32	-0.429006D-04	0.404494D-05	0.729248D-04	-0.344786D-04	-0.114625D-04
33	-0.105509D-05	0.623388D-05	-0.420059D-04	0.265344D-04	-0.687966D-05
34	-0.170766D-04	-0.284336D-04	0.238981D-04	0.144045D-03	0.340777D-04
35	0.317927D-04	0.167025D-05	-0.839346D-04	-0.288980D-04	0.982048D-05
36	-0.497179D-04	-0.493328D-04	-0.922597D-05	0.368451D-04	0.496228D-04
37	0.207228D-04	0.389189D-04	-0.750885D-04	0.111347D-04	0.829907D-05
38	0.910528D-05	0.657394D-05	0.967577D-05	0.561960D-04	-0.117985D-05
39	0.251862D-04	0.706751D-04	-0.173059D-03	0.218187D-05	0.188790D-04
40	-0.127569D-05	-0.284261D-05	-0.896328D-04	-0.414130D-05	0.611683D-04
41	-0.640544D-04	-0.365803D-04	-0.374385D-04	-0.239972D-04	0.184859D-03
42	0.454477D-04	0.336973D-04	-0.427694D-04	0.522557D-04	0.856731D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881825D-03				
7	-0.503551D-05	0.258059D-02			
8	-0.118042D-04	-0.565623D-03	0.892286D-02		
9	0.748632D-05	0.846467D-04	0.447097D-03	0.150923D-02	
10	-0.446550D-05	0.920174D-05	-0.192081D-03	0.145293D-03	0.351048D-02
11	-0.164744D-04	-0.272403D-03	-0.946091D-04	0.426546D-04	-0.297962D-03
12	0.181276D-04	-0.109758D-04	0.420312D-03	-0.181259D-03	0.329702D-03
13	-0.161073D-04	0.763878D-04	0.613010D-05	0.100952D-04	-0.203416D-04
14	0.166982D-04	0.264855D-04	-0.395247D-04	0.417973D-05	0.239616D-04
15	0.692259D-05	-0.792062D-05	-0.166100D-04	0.142817D-04	0.366249D-04
16	-0.201849D-04	0.334028D-05	0.571242D-05	0.106830D-04	0.328940D-05
17	-0.197658D-04	0.123419D-05	-0.281152D-04	-0.844555D-05	0.289255D-05
18	-0.428375D-04	0.575786D-04	-0.555943D-04	-0.202218D-04	0.372883D-04
19	0.116430D-04	-0.143365D-04	-0.871038D-05	0.153791D-06	-0.285489D-04
20	0.329223D-05	-0.952201D-05	0.625701D-04	0.580988D-05	-0.112224D-04
21	0.473061D-05	0.483659D-05	-0.145123D-03	-0.306278D-04	0.122209D-04
22	-0.325230D-04	0.166698D-04	0.566447D-04	-0.185874D-05	-0.265120D-04
23	-0.409104D-05	-0.101407D-04	0.491864D-05	-0.155817D-04	-0.289394D-04
24	-0.331944D-05	0.119369D-04	-0.260281D-04	0.191395D-04	0.143963D-04
25	-0.215333D-04	0.275623D-04	-0.139719D-03	-0.179352D-04	-0.526990D-04
26	-0.223297D-05	0.275097D-04	0.890300D-04	0.407355D-04	-0.101572D-06
27	-0.132972D-04	0.115672D-03	0.459706D-04	0.585870D-04	0.801716D-04
28	0.255281D-04	-0.179737D-04	-0.790200D-04	0.305101D-04	0.482809D-04
29	-0.445296D-05	0.190293D-04	-0.487968D-04	0.332811D-05	-0.177664D-04
30	-0.524560D-05	0.502733D-05	0.119590D-03	0.188418D-05	0.879110D-04
31	0.262636D-05	-0.126627D-04	-0.110628D-03	-0.225543D-04	0.933878D-05
32	-0.579986D-05	0.227309D-04	-0.133710D-03	-0.366893D-04	0.500907D-05
33	0.386970D-04	0.543986D-04	0.128330D-03	0.141048D-04	0.234415D-04
34	-0.102693D-03	0.527525D-04	-0.348084D-03	-0.295591D-03	-0.412973D-04
35	-0.769185D-04	0.124046D-03	-0.592253D-04	-0.100391D-03	-0.375888D-04
36	-0.336831D-04	-0.314709D-04	-0.691816D-04	-0.383563D-04	-0.192816D-03
37	-0.204157D-04	-0.965311D-04	0.165476D-03	-0.323279D-03	0.111176D-03
38	0.304775D-04	0.832107D-04	0.253030D-03	0.122204D-03	0.611063D-04
39	-0.105383D-03	-0.174058D-04	0.315558D-03	0.231010D-04	-0.216881D-03
40	-0.127386D-03	0.768639D-04	0.310168D-03	-0.343018D-04	-0.163984D-03
41	-0.887700D-04	-0.253465D-04	-0.789090D-05	-0.631349D-04	-0.644381D-04
42	-0.308351D-04	-0.284551D-03	-0.774057D-03	-0.207467D-03	-0.145114D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160274D-02				
12	0.308930D-03	0.184485D-02			
13	-0.204397D-05	-0.200857D-04	0.887203D-03		
14	0.108860D-04	0.283592D-04	0.144167D-03	0.209517D-03	
15	-0.376843D-05	0.311491D-05	0.245872D-04	0.632895D-04	0.178540D-03
16	0.839865D-05	-0.385342D-04	-0.152809D-03	-0.702347D-04	-0.312437D-04
17	0.423526D-04	-0.183618D-04	-0.515517D-04	-0.385943D-04	-0.503943D-04
18	-0.513553D-04	0.967328D-04	0.342457D-04	0.115877D-04	-0.743959D-05
19	-0.195694D-04	0.944368D-05	0.671910D-04	0.296098D-04	0.604119D-05
20	-0.307012D-04	-0.657129D-05	0.115417D-04	0.103478D-04	0.370404D-04
21	0.303283D-04	0.119952D-04	-0.192629D-04	-0.532044D-05	-0.922666D-05
22	0.316776D-05	0.676248D-05	0.109689D-04	-0.118925D-04	0.891559D-05
23	0.106664D-04	0.424485D-04	0.167281D-03	0.404974D-04	0.601210D-05
24	-0.239054D-04	0.126701D-04	0.306007D-04	0.384790D-04	0.344864D-04
25	0.355951D-04	-0.325377D-04	-0.228262D-04	-0.347920D-04	-0.407285D-05
26	-0.665069D-06	0.163876D-04	0.649009D-05	0.160594D-05	0.118979D-04
27	0.427288D-04	0.820194D-04	0.386145D-04	-0.102760D-04	-0.152146D-04
28	-0.105250D-04	-0.196026D-04	-0.849081D-04	-0.497650D-04	-0.142775D-04
29	0.350065D-04	0.221416D-04	-0.125956D-04	-0.204236D-04	-0.363791D-04
30	-0.388301D-06	-0.717382D-06	0.759231D-04	0.268177D-04	0.103300D-04
31	0.114798D-05	0.206542D-05	-0.109781D-04	-0.694154D-05	-0.112131D-04
32	-0.104936D-04	0.217347D-04	0.793823D-05	-0.177127D-04	-0.664854D-06
33	-0.232523D-05	0.303568D-05	0.344494D-04	0.562231D-05	0.132613D-05
34	-0.900250D-05	-0.504108D-05	-0.250156D-06	0.110358D-04	0.445968D-04
35	-0.384692D-04	0.162225D-03	-0.435538D-04	-0.507723D-04	-0.587355D-04
36	0.511569D-04	-0.172763D-04	-0.228345D-04	-0.132939D-04	-0.824404D-05
37	0.617070D-04	0.111995D-03	-0.944243D-04	-0.848461D-05	0.111238D-04
38	0.119835D-03	0.824059D-04	0.775999D-04	0.441951D-04	0.124851D-04
39	-0.473861D-04	-0.544089D-04	0.137369D-03	0.147442D-03	0.113346D-03
40	-0.182771D-03	-0.900646D-04	0.103935D-03	0.382432D-04	0.251631D-05
41	-0.110252D-03	0.245273D-04	-0.647610D-04	-0.284350D-04	0.134899D-04
42	0.184706D-04	0.143984D-03	-0.388053D-04	-0.248722D-04	-0.157555D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769006D-03				
17	0.156210D-03	0.354731D-03			
18	-0.227030D-03	-0.189506D-03	0.243865D-02		
19	-0.865744D-04	-0.203778D-04	0.315743D-04	0.382766D-03	

20	-0.222570D-04	-0.469582D-04	-0.744405D-05	0.626894D-04	0.180151D-03
21	0.291733D-04	0.785685D-04	-0.291579D-03	-0.493626D-04	-0.695939D-04
22	-0.111361D-04	-0.190951D-04	0.505160D-04	0.403927D-04	0.785412D-04
23	-0.105868D-03	-0.310509D-04	0.595039D-04	0.140419D-03	0.268017D-04
24	-0.243711D-04	-0.662508D-04	0.113832D-04	0.237686D-04	0.630520D-04
25	0.126714D-03	0.658664D-04	-0.445728D-03	-0.672219D-06	-0.137381D-04
26	-0.291076D-05	-0.194967D-04	0.621662D-04	0.585886D-04	0.497088D-04
27	-0.687386D-05	-0.268336D-04	0.178526D-03	0.227541D-04	0.209049D-04
28	0.981610D-04	0.245247D-04	-0.701014D-04	-0.123494D-03	-0.325886D-04
29	0.251569D-04	0.505759D-04	0.577516D-05	-0.167985D-04	-0.546350D-04
30	-0.613001D-04	-0.711105D-04	0.278660D-03	0.387116D-04	0.125668D-04
31	0.719156D-05	0.232379D-04	-0.152426D-05	-0.352217D-04	-0.495741D-04
32	0.707602D-05	0.327586D-05	-0.324620D-04	-0.122212D-04	-0.577338D-05
33	-0.296139D-05	-0.142335D-04	-0.379904D-04	-0.627269D-07	0.177129D-04
34	0.875713D-04	-0.118299D-03	0.258858D-03	0.796854D-04	0.281804D-05
35	0.578977D-04	0.685934D-04	0.629249D-04	0.256061D-04	-0.576845D-04
36	0.536006D-04	0.700578D-04	-0.272547D-04	0.115040D-04	0.825380D-05
37	0.479190D-05	-0.377208D-04	-0.579957D-04	-0.244452D-04	0.167882D-04
38	-0.357901D-04	-0.105515D-04	0.888660D-04	0.428373D-05	0.447240D-05
39	-0.123397D-03	-0.165749D-03	0.597090D-04	-0.385829D-04	-0.855241D-04
40	-0.223029D-04	-0.669783D-05	-0.112701D-03	0.189077D-04	0.108922D-04
41	0.372700D-04	-0.500291D-05	-0.234821D-03	-0.752364D-04	-0.329751D-04
42	-0.475776D-05	-0.113813D-04	-0.124463D-03	0.319614D-04	0.252423D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679747D-03				
22	-0.137488D-03	0.652637D-03			
23	-0.299915D-04	0.352368D-04	0.732785D-03		
24	-0.239344D-04	0.149475D-04	0.119150D-03	0.338057D-03	
25	0.221871D-03	-0.480638D-04	-0.103083D-03	-0.980386D-04	0.129239D-02
26	-0.139747D-03	0.196824D-03	0.696551D-04	0.830366D-04	-0.137399D-03
27	-0.645300D-04	0.874901D-04	0.222582D-03	0.134557D-03	-0.395023D-03
28	0.286497D-04	-0.260093D-04	-0.206209D-03	-0.374894D-04	0.515370D-04
29	0.957114D-05	-0.239078D-04	-0.251894D-04	-0.784299D-04	0.282682D-04
30	-0.168745D-03	0.559485D-04	0.104480D-03	0.317080D-04	-0.300919D-03
31	0.801439D-04	-0.186273D-03	-0.155678D-04	-0.182955D-04	0.401907D-04
32	0.216979D-04	-0.449528D-04	-0.836091D-04	-0.752606D-04	0.166234D-03
33	-0.190191D-04	0.252736D-04	0.296154D-04	0.414027D-04	-0.418912D-04
34	-0.184030D-03	0.738776D-04	-0.499915D-04	0.503230D-04	-0.130852D-03
35	-0.865400D-06	0.871635D-04	0.137896D-04	-0.456679D-05	-0.136622D-03
36	0.683016D-05	0.138112D-04	-0.908175D-04	0.577776D-05	-0.129023D-04

37	0.246976D-04	-0.158483D-04	-0.310449D-04	-0.181297D-05	0.517290D-04
38	0.138945D-04	0.135431D-04	0.397811D-04	0.155633D-04	0.487945D-05
39	0.138109D-03	-0.754663D-04	-0.925102D-06	0.342366D-05	0.213568D-03
40	0.271266D-04	-0.113317D-03	-0.625218D-04	-0.312297D-04	0.122004D-03
41	0.156773D-04	0.156805D-05	-0.285132D-04	0.535368D-04	-0.528375D-04
42	0.579961D-04	-0.389974D-04	0.205769D-04	0.162160D-04	0.981981D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650060D-03				
27	0.437876D-03	0.241816D-02			
28	-0.322606D-04	-0.687201D-04	0.686010D-03		
29	-0.368512D-04	-0.517633D-04	0.112367D-03	0.287868D-03	
30	0.842575D-04	0.150282D-03	-0.120951D-03	-0.785402D-04	0.112437D-02
31	-0.185726D-03	-0.123303D-03	0.743611D-04	0.730044D-04	-0.167921D-03
32	-0.234907D-03	-0.575806D-03	0.152295D-03	0.920685D-04	-0.231379D-03
33	0.832201D-04	0.153501D-03	-0.160440D-03	-0.131436D-03	0.271650D-03
34	0.528320D-04	-0.581460D-04	0.195143D-04	-0.242308D-07	0.442810D-04
35	0.828944D-04	-0.379828D-04	-0.277564D-04	0.183079D-04	0.587565D-04
36	0.660145D-04	-0.770177D-04	0.451950D-04	-0.134063D-04	-0.106936D-03
37	0.389716D-04	-0.172111D-04	-0.237391D-04	-0.231211D-04	0.122367D-04
38	-0.349485D-04	-0.241583D-04	-0.456578D-04	-0.933167D-05	0.703185D-04
39	0.508267D-04	-0.237731D-03	0.439660D-04	-0.541491D-04	-0.629248D-04
40	-0.303143D-05	-0.456320D-04	0.933069D-04	0.394809D-04	-0.117551D-03
41	0.114260D-03	0.189034D-03	0.450719D-04	0.449649D-04	-0.787055D-04
42	0.252938D-05	-0.319320D-04	-0.434759D-04	-0.245265D-04	0.282784D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597719D-03				
32	0.241947D-03	0.115791D-02			
33	-0.349946D-03	-0.537309D-03	0.195428D-02		
34	0.490628D-04	-0.158805D-03	0.496608D-04	0.159765D-01	
35	-0.370005D-04	-0.643083D-04	0.376640D-04	0.122583D-02	0.110228D-01
36	-0.113964D-04	-0.103182D-04	-0.157501D-03	0.111997D-03	-0.546460D-06
37	0.743054D-05	-0.329685D-04	0.916115D-04	-0.185134D-03	-0.455518D-04
38	-0.284500D-06	-0.189232D-04	0.349576D-04	-0.460761D-04	0.383301D-04
39	0.194164D-04	0.268251D-04	0.200442D-03	0.913977D-04	-0.290818D-03
40	0.567443D-05	0.101991D-03	0.178897D-04	0.445909D-03	0.525806D-04
41	0.134691D-03	-0.499018D-04	-0.132904D-03	-0.423724D-03	0.122788D-03

42 0.784359D-05 0.593890D-05 0.195695D-04 -0.551639D-04 -0.183525D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.374379D-02				
37	-0.114097D-02	0.571730D-02			
38	-0.407655D-03	-0.264191D-03	0.139923D-02		
39	0.278270D-03	0.384519D-03	-0.203959D-03	0.305315D-01	
40	0.101756D-03	0.397490D-05	-0.138609D-03	0.258340D-02	0.101139D-01
41	0.130431D-03	0.395036D-03	-0.143017D-03	0.132736D-02	0.208913D-02
42	-0.267999D-03	0.457777D-02	-0.365699D-03	0.722294D-03	-0.625321D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.125611D-01	
42	0.297052D-03	0.704919D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.016	-0.040	-0.010	0.015
8	0.029	-0.005	0.025	-0.008	-0.020
9	0.015	0.019	0.033	0.018	0.049
10	-0.007	0.033	0.016	0.008	0.021
11	0.036	0.016	-0.014	-0.011	0.010
12	0.001	0.022	-0.013	0.014	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020



20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.014	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005
34	-0.005	-0.014	0.006	0.049	0.008
35	0.012	0.001	-0.024	-0.012	0.003
36	-0.033	-0.048	-0.005	0.026	0.025
37	0.011	0.031	-0.030	0.006	0.003
38	0.010	0.011	0.008	0.064	-0.001
39	0.006	0.024	-0.030	0.001	0.003
40	-0.001	-0.002	-0.027	-0.002	0.018
41	-0.023	-0.020	-0.010	-0.009	0.050
42	0.022	0.024	-0.015	0.027	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.003	1.000			
8	-0.004	-0.118	1.000		
9	0.006	0.043	0.122	1.000	
10	-0.003	0.003	-0.034	0.063	1.000
11	-0.014	-0.134	-0.025	0.027	-0.126
12	0.014	-0.005	0.104	-0.109	0.130
13	-0.018	0.050	0.002	0.009	-0.012
14	0.039	0.036	-0.029	0.007	0.028
15	0.017	-0.012	-0.013	0.028	0.046
16	-0.025	0.002	0.002	0.010	0.002
17	-0.035	0.001	-0.016	-0.012	0.003
18	-0.029	0.023	-0.012	-0.011	0.013
19	0.020	-0.014	-0.005	0.000	-0.025
20	0.008	-0.014	0.049	0.011	-0.014
21	0.006	0.004	-0.059	-0.030	0.008

22	-0.043	0.013	0.023	-0.002	-0.018
23	-0.005	-0.007	0.002	-0.015	-0.018
24	-0.006	0.013	-0.015	0.027	0.013
25	-0.020	0.015	-0.041	-0.013	-0.025
26	-0.003	0.021	0.037	0.041	0.000
27	-0.009	0.046	0.010	0.031	0.028
28	0.033	-0.014	-0.032	0.030	0.031
29	-0.009	0.022	-0.030	0.005	-0.018
30	-0.005	0.003	0.038	0.001	0.044
31	0.004	-0.010	-0.048	-0.024	0.006
32	-0.006	0.013	-0.042	-0.028	0.002
33	0.029	0.024	0.031	0.008	0.009
34	-0.027	0.008	-0.029	-0.060	-0.006
35	-0.025	0.023	-0.006	-0.025	-0.006
36	-0.019	-0.010	-0.012	-0.016	-0.053
37	-0.009	-0.025	0.023	-0.110	0.025
38	0.027	0.044	0.072	0.084	0.028
39	-0.020	-0.002	0.019	0.003	-0.021
40	-0.043	0.015	0.033	-0.009	-0.028
41	-0.027	-0.004	-0.001	-0.015	-0.010
42	-0.012	-0.067	-0.098	-0.064	-0.029

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.180	1.000			
13	-0.002	-0.016	1.000		
14	0.019	0.046	0.334	1.000	
15	-0.007	0.005	0.062	0.327	1.000
16	0.008	-0.032	-0.185	-0.175	-0.084
17	0.056	-0.023	-0.092	-0.142	-0.200
18	-0.026	0.046	0.023	0.016	-0.011
19	-0.025	0.011	0.115	0.105	0.023
20	-0.057	-0.011	0.029	0.053	0.207
21	0.029	0.011	-0.025	-0.014	-0.026
22	0.003	0.006	0.014	-0.032	0.026
23	0.010	0.037	0.207	0.103	0.017
24	-0.032	0.016	0.056	0.145	0.140
25	0.025	-0.021	-0.021	-0.067	-0.008
26	-0.001	0.015	0.009	0.004	0.035
27	0.022	0.039	0.026	-0.014	-0.023
28	-0.010	-0.017	-0.109	-0.131	-0.041

29	0.052	0.030	-0.025	-0.083	-0.160
30	0.000	0.000	0.076	0.055	0.023
31	0.001	0.002	-0.015	-0.020	-0.034
32	-0.008	0.015	0.008	-0.036	-0.001
33	-0.001	0.002	0.026	0.009	0.002
34	-0.002	-0.001	0.000	0.006	0.026
35	-0.009	0.036	-0.014	-0.033	-0.042
36	0.021	-0.007	-0.013	-0.015	-0.010
37	0.020	0.034	-0.042	-0.008	0.011
38	0.080	0.051	0.070	0.082	0.025
39	-0.007	-0.007	0.026	0.058	0.049
40	-0.045	-0.021	0.035	0.026	0.002
41	-0.025	0.005	-0.019	-0.018	0.009
42	0.005	0.040	-0.016	-0.020	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.025	-0.050	0.041	0.032	0.002
35	0.020	0.035	0.012	0.012	-0.041
36	0.032	0.061	-0.009	0.010	0.010
37	0.002	-0.026	-0.016	-0.017	0.017
38	-0.035	-0.015	0.048	0.006	0.009
39	-0.025	-0.050	0.007	-0.011	-0.036
40	-0.008	-0.004	-0.023	0.010	0.008

41	0.012	-0.002	-0.042	-0.034	-0.022
42	-0.002	-0.007	-0.030	0.019	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.042	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.017	0.022	0.025	0.051	-0.026
34	-0.056	0.023	-0.015	0.022	-0.029
35	0.000	0.032	0.005	-0.002	-0.036
36	0.004	0.009	-0.055	0.005	-0.006
37	0.013	-0.008	-0.015	-0.001	0.019
38	0.014	0.014	0.039	0.023	0.004
39	0.030	-0.017	0.000	0.001	0.034
40	0.010	-0.044	-0.023	-0.017	0.034
41	0.005	0.001	-0.009	0.026	-0.013
42	0.026	-0.018	0.009	0.011	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.016	-0.009	0.006	0.000	0.010
35	0.031	-0.007	-0.010	0.010	0.017

36	0.042	-0.026	0.028	-0.013	-0.052
37	0.020	-0.005	-0.012	-0.018	0.005
38	-0.037	-0.013	-0.047	-0.015	0.056
39	0.011	-0.028	0.010	-0.018	-0.011
40	-0.001	-0.009	0.035	0.023	-0.035
41	0.040	0.034	0.015	0.024	-0.021
42	0.001	-0.008	-0.020	-0.017	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.016	-0.037	0.009	1.000	
35	-0.014	-0.018	0.008	0.092	1.000
36	-0.008	-0.005	-0.058	0.014	0.000
37	0.004	-0.013	0.027	-0.019	-0.006
38	0.000	-0.015	0.021	-0.010	0.010
39	0.005	0.005	0.026	0.004	-0.016
40	0.002	0.030	0.004	0.035	0.005
41	0.049	-0.013	-0.027	-0.030	0.010
42	0.004	0.002	0.005	-0.005	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.247	1.000			
38	-0.178	-0.093	1.000		
39	0.026	0.029	-0.031	1.000	
40	0.017	0.001	-0.037	0.147	1.000
41	0.019	0.047	-0.034	0.068	0.185
42	-0.052	0.721	-0.116	0.049	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.032	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.016	38
300	1.007	42
400	1.007	36
500	1.008	38
600	1.005	38
700	1.002	6
800	1.002	42
900	1.004	42
1000	1.001	42

Effects of a single practice, healthy eating

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460



	58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
SINSQU		1.072	0.650	0.014	6.90%	0.212	0.672	1.061
	58.000	0.886	-0.811	2.822	13.79%	1.124	2.074	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.652 28.455

Posterior Predictive P-Value 0.529

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.160	0.051	0.001	0.060	0.259	*
CHOICE15	0.030	0.039	0.225	-0.049	0.110	
BULLY15	0.103	0.059	0.031	-0.005	0.224	
DUTIES15	-0.081	0.043	0.027	-0.169	0.003	
PRESS15	-0.047	0.040	0.125	-0.123	0.033	
KES15	0.798	0.095	0.000	0.609	0.984	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.074	0.063	0.119	-0.200	0.045	
SINSQU	-0.076	0.066	0.113	-0.218	0.044	

SINGLE WITH						
SINSQU	0.237	0.129	0.028	-0.005	0.517	

#### Means

SINGLE	0.320	0.130	0.006	0.074	0.579	*
SINSQU	1.082	0.128	0.000	0.821	1.329	*

#### Thresholds

KESCAT16\$1	-0.563	0.085	0.000	-0.751	-0.408	*
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#### Variances

SINGLE	0.980	0.182	0.000	0.702	1.424	*
SINSQU	0.902	0.169	0.000	0.636	1.287	*

#### Residual Variances

KESCAT16	0.031	0.038	0.000	0.001	0.144	*
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### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.119	0.037	0.001	0.044	0.189	*
CHOICE15	0.029	0.037	0.225	-0.046	0.105	
BULLY15	0.071	0.040	0.031	-0.004	0.154	

DUTIES15	-0.072	0.038	0.027	-0.148	0.003	
PRESS15	-0.044	0.038	0.125	-0.116	0.032	
KES15	0.394	0.040	0.000	0.309	0.470	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	-0.338	0.273	0.119	-0.866	0.219	
SINSQU	-0.332	0.257	0.113	-0.801	0.193	
SINGLE WITH						
SINSQU	0.255	0.121	0.028	-0.005	0.477	
Means						
SINGLE	0.324	0.132	0.006	0.073	0.582	*
SINSQU	1.136	0.168	0.000	0.810	1.473	*
Thresholds						
KESCAT16\$1	-2.514	1.128	0.000	-5.534	-1.303	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.648	0.234	0.000	0.080	0.965	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.220	0.034	0.000	0.155	0.286

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.352	0.234	0.000	0.035	0.920

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA		
	PRESS15	DUTIES15
	5	6

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>



0	0	0
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# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

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0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

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0.000      

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0.000      

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0.000      

---

0.000      

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0.000

NU  
PRESS15      DUTIES15  

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0.000      

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0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
0.000	0.000

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

PRESS15	DUTIES15

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u></u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU		
KESCAT16	SINGLE	SINSQU
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.407	0.900

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.367	
SINSQU	0.000	0.000	0.368

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925511D-04	-0.649507D-04	0.111151D-02		
4	0.451997D-04	0.736574D-04	-0.136557D-03	0.544172D-03	
5	0.101058D-03	0.445930D-04	-0.215375D-03	0.177225D-03	0.108755D-02
6	-0.408459D-04	-0.473500D-04	0.976751D-04	-0.161981D-03	-0.253051D-03
7	-0.278396D-04	-0.139743D-04	-0.669086D-04	-0.922025D-05	0.256704D-04
8	0.657725D-04	-0.914923D-05	0.805554D-04	-0.125534D-04	-0.622981D-04
9	0.154501D-04	0.122659D-04	0.393808D-04	0.163811D-04	0.639360D-04
10	-0.934495D-05	0.316019D-04	0.320065D-04	0.124672D-04	0.405050D-04
11	0.350064D-04	0.105650D-04	-0.179560D-04	-0.136549D-04	0.127560D-04
12	0.441426D-06	0.152854D-04	-0.183461D-04	0.143341D-04	-0.935480D-04
13	0.611675D-04	0.212395D-04	-0.183350D-04	0.534531D-06	0.323051D-04
14	-0.108339D-05	0.118216D-04	-0.293216D-05	-0.151587D-04	-0.196785D-04
15	0.586032D-05	0.141467D-05	0.195706D-04	-0.166322D-04	-0.973847D-05
16	-0.436311D-04	-0.212685D-04	0.228306D-05	0.728157D-05	-0.173806D-04
17	0.586006D-06	0.109627D-04	-0.789046D-05	0.175432D-06	0.138770D-04
18	-0.383196D-04	-0.126925D-05	-0.341456D-04	0.772948D-05	0.209282D-04
19	0.997667D-05	0.174767D-04	0.153485D-04	-0.703160D-05	-0.129188D-04
20	0.517464D-05	0.215725D-05	0.667876D-06	0.934015D-05	0.687265D-05
21	0.831210D-05	-0.827569D-05	0.110120D-04	0.130217D-05	-0.288459D-04
22	0.170087D-04	0.431309D-05	-0.561415D-05	0.192159D-04	0.568293D-04
23	0.254837D-04	0.125184D-04	0.829592D-05	-0.153182D-04	0.219569D-04
24	0.452426D-05	0.211693D-05	0.163388D-04	0.962466D-05	0.159485D-04
25	-0.285997D-05	-0.388299D-05	-0.173976D-04	0.186655D-04	-0.514316D-05
26	-0.327540D-05	-0.116912D-04	0.198855D-05	0.236677D-04	0.304899D-04
27	0.343514D-04	-0.449656D-05	-0.246631D-04	0.183785D-04	0.476142D-04
28	-0.949611D-05	-0.209414D-04	-0.879871D-05	-0.345173D-04	-0.194303D-04
29	-0.212892D-05	0.179171D-05	-0.109464D-04	-0.407777D-05	0.198104D-04
30	-0.609425D-05	-0.126407D-04	-0.169272D-04	0.102363D-04	0.467497D-04
31	-0.881862D-05	0.161397D-05	0.306227D-04	-0.184781D-04	-0.475955D-05
32	-0.428810D-04	0.404367D-05	0.729330D-04	-0.344760D-04	-0.114613D-04
33	-0.108994D-05	0.622129D-05	-0.420145D-04	0.265267D-04	-0.687409D-05
34	-0.179852D-04	-0.298377D-04	0.274284D-04	0.145283D-03	0.332341D-04
35	0.351044D-04	-0.290364D-05	-0.920595D-04	-0.166188D-04	0.101057D-04
36	-0.339230D-04	-0.101320D-04	0.388169D-05	0.540066D-04	0.598865D-04
37	0.539096D-05	0.265086D-04	-0.203684D-04	0.104515D-04	-0.276156D-06
38	0.100624D-04	0.853604D-05	0.113271D-04	0.597663D-04	-0.393185D-05
39	0.214696D-04	0.694569D-04	-0.208144D-03	-0.276758D-05	0.434977D-04
40	-0.125535D-04	-0.701592D-05	-0.117042D-03	-0.804813D-05	0.114168D-03
41	-0.934312D-04	-0.540464D-04	-0.545776D-04	-0.319264D-04	0.278622D-03
42	0.275164D-04	0.289416D-04	0.397141D-05	0.656162D-04	0.917825D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881802D-03				
7	-0.630078D-05	0.259147D-02			
8	-0.164422D-04	-0.554142D-03	0.898921D-02		
9	0.688530D-05	0.772458D-04	0.460302D-03	0.151104D-02	
10	-0.237276D-05	0.687477D-05	-0.220577D-03	0.146034D-03	0.352209D-02
11	-0.163635D-04	-0.278316D-03	-0.112738D-03	0.409418D-04	-0.293771D-03
12	0.184461D-04	-0.678458D-05	0.428248D-03	-0.183087D-03	0.327417D-03
13	-0.161037D-04	0.744638D-04	0.130220D-04	0.876046D-05	-0.241609D-04
14	0.166941D-04	0.253768D-04	-0.397683D-04	0.473352D-05	0.219338D-04
15	0.692613D-05	-0.809771D-05	-0.169272D-04	0.137808D-04	0.354835D-04
16	-0.201805D-04	0.496068D-05	0.637305D-05	0.886214D-05	0.464815D-05
17	-0.197679D-04	0.251010D-05	-0.220885D-04	-0.912543D-05	0.396018D-05
18	-0.428203D-04	0.549515D-04	-0.666233D-04	-0.198798D-04	0.382992D-04
19	0.116521D-04	-0.146822D-04	-0.576189D-05	0.908264D-06	-0.277269D-04
20	0.330927D-05	-0.830222D-05	0.651098D-04	0.534796D-05	-0.112077D-04
21	0.472670D-05	0.360092D-05	-0.143890D-03	-0.285125D-04	0.106953D-04
22	-0.325192D-04	0.178570D-04	0.629786D-04	-0.413175D-05	-0.255125D-04
23	-0.408384D-05	-0.124925D-04	0.561452D-05	-0.153943D-04	-0.313868D-04
24	-0.331115D-05	0.117908D-04	-0.245739D-04	0.198922D-04	0.141879D-04
25	-0.215250D-04	0.278233D-04	-0.137940D-03	-0.179056D-04	-0.542640D-04
26	-0.222843D-05	0.304387D-04	0.978852D-04	0.415323D-04	0.116463D-05
27	-0.132742D-04	0.116152D-03	0.523725D-04	0.592394D-04	0.766865D-04
28	0.255235D-04	-0.172900D-04	-0.791771D-04	0.310309D-04	0.512322D-04
29	-0.446947D-05	0.191606D-04	-0.483878D-04	0.331972D-05	-0.167049D-04
30	-0.525358D-05	0.481321D-05	0.116845D-03	0.102549D-05	0.841256D-04
31	0.261124D-05	-0.150685D-04	-0.112478D-03	-0.199905D-04	0.830906D-05
32	-0.578652D-05	0.234141D-04	-0.137695D-03	-0.380976D-04	0.462850D-05
33	0.387102D-04	0.561558D-04	0.115053D-03	0.134874D-04	0.244080D-04
34	-0.106366D-03	0.484316D-04	-0.335860D-03	-0.307610D-03	-0.425626D-04
35	-0.103465D-03	0.152798D-03	-0.126177D-03	-0.163393D-03	-0.444037D-04
36	-0.371642D-04	0.146090D-03	0.207496D-03	-0.356861D-04	-0.181599D-03
37	-0.928455D-05	-0.147375D-03	-0.172276D-03	-0.269679D-03	0.179346D-03
38	0.253210D-04	0.841671D-04	0.305395D-03	0.132073D-03	0.511653D-04
39	-0.149547D-03	0.168802D-04	0.408918D-03	0.888730D-05	-0.274652D-03
40	-0.178205D-03	0.858880D-04	0.369661D-03	-0.658636D-04	-0.219813D-03
41	-0.134259D-03	-0.369602D-04	-0.302125D-04	-0.884366D-04	-0.807790D-04
42	-0.327124D-04	-0.291813D-03	-0.998086D-03	-0.214040D-03	-0.118089D-03



ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160834D-02				
12	0.303123D-03	0.184904D-02			
13	-0.402602D-05	-0.196140D-04	0.887203D-03		
14	0.106658D-04	0.278614D-04	0.144168D-03	0.209517D-03	
15	-0.400878D-05	0.317063D-05	0.245872D-04	0.632895D-04	0.178541D-03
16	0.773325D-05	-0.382317D-04	-0.152807D-03	-0.702328D-04	-0.312452D-04
17	0.409483D-04	-0.179882D-04	-0.515488D-04	-0.385938D-04	-0.503941D-04
18	-0.490328D-04	0.967742D-04	0.342512D-04	0.115930D-04	-0.743131D-05
19	-0.202283D-04	0.855627D-05	0.672017D-04	0.296115D-04	0.604364D-05
20	-0.321539D-04	-0.662185D-05	0.115438D-04	0.103525D-04	0.370406D-04
21	0.300820D-04	0.114086D-04	-0.192747D-04	-0.532313D-05	-0.923068D-05
22	0.705739D-06	0.810163D-05	0.109786D-04	-0.118900D-04	0.892293D-05
23	0.116896D-04	0.413448D-04	0.167283D-03	0.404991D-04	0.601159D-05
24	-0.236785D-04	0.121285D-04	0.306016D-04	0.384756D-04	0.344854D-04
25	0.348117D-04	-0.339051D-04	-0.228265D-04	-0.347921D-04	-0.408061D-05
26	-0.299989D-05	0.169693D-04	0.649666D-05	0.160643D-05	0.118981D-04
27	0.440955D-04	0.822941D-04	0.386241D-04	-0.102755D-04	-0.152235D-04
28	-0.992667D-05	-0.195268D-04	-0.849104D-04	-0.497680D-04	-0.142786D-04
29	0.350039D-04	0.226317D-04	-0.125931D-04	-0.204246D-04	-0.363770D-04
30	-0.136567D-05	-0.131203D-05	0.759391D-04	0.268236D-04	0.103331D-04
31	0.182788D-05	0.109112D-05	-0.109783D-04	-0.694253D-05	-0.112117D-04
32	-0.924961D-05	0.208476D-04	0.794113D-05	-0.177163D-04	-0.662509D-06
33	-0.683197D-06	0.335969D-05	0.344523D-04	0.562520D-05	0.131814D-05
34	-0.820885D-05	0.165151D-05	0.511885D-06	0.117596D-04	0.455288D-04
35	-0.497820D-04	0.196252D-03	-0.440709D-04	-0.574142D-04	-0.653234D-04
36	-0.765443D-04	0.233802D-05	0.412848D-04	-0.299114D-05	0.760829D-05
37	0.641755D-04	0.324470D-04	-0.142437D-03	-0.406528D-04	-0.243510D-05
38	0.930780D-04	0.758379D-04	0.849037D-04	0.441921D-04	0.108020D-04
39	-0.113578D-03	-0.859084D-04	0.171131D-03	0.159608D-03	0.115739D-03
40	-0.241292D-03	-0.109590D-03	0.118843D-03	0.416151D-04	0.670693D-05
41	-0.153137D-03	0.368241D-04	-0.978063D-04	-0.435641D-04	0.200883D-04
42	-0.138513D-04	0.732692D-04	-0.847866D-04	-0.576250D-04	-0.240356D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769006D-03				
17	0.156209D-03	0.354723D-03			
18	-0.227043D-03	-0.189505D-03	0.243861D-02		
19	-0.865640D-04	-0.203791D-04	0.315690D-04	0.382764D-03	

20	-0.222555D-04	-0.469579D-04	-0.744870D-05	0.626854D-04	0.180141D-03
21	0.291567D-04	0.785674D-04	-0.291581D-03	-0.493643D-04	-0.695841D-04
22	-0.111293D-04	-0.191051D-04	0.505396D-04	0.403900D-04	0.785242D-04
23	-0.105879D-03	-0.310546D-04	0.594904D-04	0.140422D-03	0.267928D-04
24	-0.243739D-04	-0.662477D-04	0.113638D-04	0.237725D-04	0.630430D-04
25	0.126742D-03	0.658711D-04	-0.445743D-03	-0.682775D-06	-0.137433D-04
26	-0.290174D-05	-0.194999D-04	0.621855D-04	0.586042D-04	0.497077D-04
27	-0.687497D-05	-0.268469D-04	0.178526D-03	0.227678D-04	0.209131D-04
28	0.981664D-04	0.245343D-04	-0.701074D-04	-0.123488D-03	-0.325844D-04
29	0.251561D-04	0.505795D-04	0.577558D-05	-0.167934D-04	-0.546254D-04
30	-0.612821D-04	-0.711182D-04	0.278663D-03	0.387120D-04	0.125564D-04
31	0.716319D-05	0.232407D-04	-0.156549D-05	-0.352281D-04	-0.495713D-04
32	0.706816D-05	0.328667D-05	-0.324945D-04	-0.122406D-04	-0.577604D-05
33	-0.292144D-05	-0.142268D-04	-0.380013D-04	-0.599877D-07	0.177291D-04
34	0.886447D-04	-0.122227D-03	0.268576D-03	0.813886D-04	0.313161D-05
35	0.818418D-04	0.702233D-04	0.105583D-03	0.442497D-04	-0.690401D-04
36	0.636483D-04	0.805999D-04	-0.104886D-03	0.233114D-04	0.393939D-04
37	0.206836D-04	-0.225552D-04	0.340759D-06	-0.210035D-04	0.108379D-04
38	-0.359290D-04	-0.102207D-04	0.886525D-04	-0.135301D-05	0.368743D-05
39	-0.125736D-03	-0.166669D-03	0.204467D-04	-0.345635D-04	-0.844936D-04
40	-0.186593D-04	-0.108933D-04	-0.175405D-03	0.738864D-05	0.642961D-05
41	0.543804D-04	-0.848463D-05	-0.351550D-03	-0.112862D-03	-0.487254D-04
42	0.256287D-04	0.170130D-04	-0.103958D-03	0.377573D-04	0.352506D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679788D-03				
22	-0.137484D-03	0.652641D-03			
23	-0.299929D-04	0.352317D-04	0.732790D-03		
24	-0.239320D-04	0.149449D-04	0.119155D-03	0.338058D-03	
25	0.221883D-03	-0.481017D-04	-0.103091D-03	-0.980276D-04	0.129235D-02
26	-0.139749D-03	0.196814D-03	0.696505D-04	0.830331D-04	-0.137392D-03
27	-0.645794D-04	0.875094D-04	0.222582D-03	0.134560D-03	-0.395009D-03
28	0.286477D-04	-0.260101D-04	-0.206211D-03	-0.374978D-04	0.515289D-04
29	0.956310D-05	-0.238736D-04	-0.251871D-04	-0.784291D-04	0.282661D-04
30	-0.168746D-03	0.559416D-04	0.104494D-03	0.317059D-04	-0.300950D-03
31	0.801459D-04	-0.186252D-03	-0.155697D-04	-0.182984D-04	0.402040D-04
32	0.216982D-04	-0.449507D-04	-0.836092D-04	-0.752735D-04	0.166245D-03
33	-0.189902D-04	0.252097D-04	0.296358D-04	0.414208D-04	-0.419027D-04
34	-0.189444D-03	0.764114D-04	-0.505478D-04	0.510098D-04	-0.132462D-03
35	-0.291341D-04	0.117271D-03	0.100629D-04	-0.915040D-08	-0.178836D-03
36	0.238613D-04	0.397458D-04	-0.517472D-04	0.115489D-04	0.136576D-04

37	-0.555474D-04	0.268098D-04	-0.663101D-04	-0.172299D-04	-0.313487D-04
38	0.154245D-04	0.164692D-04	0.349769D-04	0.165439D-04	-0.392535D-05
39	0.143482D-03	-0.109390D-03	-0.184598D-04	-0.576806D-05	0.246993D-03
40	0.406454D-04	-0.139262D-03	-0.848476D-04	-0.274677D-04	0.140648D-03
41	0.272421D-04	-0.143335D-06	-0.464927D-04	0.809672D-04	-0.763802D-04
42	-0.152675D-04	0.130474D-04	-0.315442D-04	-0.912368D-06	0.256963D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650081D-03				
27	0.437880D-03	0.241823D-02			
28	-0.322575D-04	-0.687361D-04	0.686013D-03		
29	-0.368421D-04	-0.517659D-04	0.112371D-03	0.287868D-03	
30	0.842674D-04	0.150300D-03	-0.120968D-03	-0.785369D-04	0.112437D-02
31	-0.185742D-03	-0.123286D-03	0.743605D-04	0.729802D-04	-0.167923D-03
32	-0.234919D-03	-0.575838D-03	0.152307D-03	0.920751D-04	-0.231376D-03
33	0.832910D-04	0.153500D-03	-0.160448D-03	-0.131438D-03	0.271635D-03
34	0.525720D-04	-0.595052D-04	0.190226D-04	-0.474004D-06	0.433275D-04
35	0.110434D-03	-0.367403D-04	-0.308962D-04	0.217665D-04	0.783665D-04
36	0.780594D-04	-0.133414D-04	-0.776723D-05	-0.151417D-04	-0.350387D-04
37	0.673107D-05	-0.294087D-04	0.110537D-04	0.964863D-06	-0.356904D-04
38	-0.286009D-04	-0.746341D-05	-0.474578D-04	-0.875689D-05	0.737889D-04
39	0.555345D-04	-0.250613D-03	0.752653D-04	-0.361693D-04	-0.100862D-03
40	0.160361D-04	-0.234227D-04	0.126512D-03	0.588512D-04	-0.156438D-03
41	0.168255D-03	0.282861D-03	0.678880D-04	0.664873D-04	-0.117065D-03
42	-0.774285D-05	-0.408689D-04	-0.177488D-04	-0.578382D-05	-0.174283D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597715D-03				
32	0.241931D-03	0.115792D-02			
33	-0.349912D-03	-0.537262D-03	0.195423D-02		
34	0.481180D-04	-0.160828D-03	0.520455D-04	0.167753D-01	
35	-0.421034D-04	-0.102980D-03	0.535907D-04	0.351803D-02	0.164250D-01
36	-0.310975D-04	-0.112861D-04	-0.996276D-04	0.411259D-04	-0.772428D-04
37	-0.412492D-04	-0.875268D-05	0.888348D-04	0.197252D-04	0.260007D-03
38	-0.100036D-05	-0.203957D-04	0.339851D-04	-0.745150D-04	0.348888D-04
39	0.231806D-04	0.611135D-04	0.202273D-03	0.204209D-03	-0.329605D-03
40	0.342698D-04	0.119740D-03	-0.446567D-05	0.483360D-03	0.151368D-03
41	0.204951D-03	-0.742331D-04	-0.201285D-03	-0.632806D-03	0.164563D-03

42 -0.539321D-04 0.220498D-04 0.180811D-04 0.144779D-03 0.934451D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.396414D-02				
37	-0.120570D-02	0.435363D-02			
38	-0.180480D-03	-0.563398D-03	0.147266D-02		
39	0.407587D-03	0.232431D-03	-0.241424D-03	0.332348D-01	
40	0.153044D-03	0.230703D-03	-0.198788D-03	0.760722D-02	0.166971D-01
41	-0.188286D-03	0.767794D-03	-0.223063D-03	0.346147D-02	0.759990D-02
42	0.376535D-03	0.376108D-02	-0.750939D-03	0.663674D-03	0.166322D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.286137D-01	
42	0.617117D-03	0.714785D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.022	-0.016	-0.039	-0.008	0.015
8	0.028	-0.006	0.025	-0.006	-0.020
9	0.016	0.019	0.030	0.018	0.050
10	-0.006	0.032	0.016	0.009	0.021
11	0.035	0.016	-0.013	-0.015	0.010
12	0.000	0.021	-0.013	0.014	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.006	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005
34	-0.006	-0.014	0.006	0.048	0.008
35	0.011	-0.001	-0.022	-0.006	0.002
36	-0.022	-0.010	0.002	0.037	0.029
37	0.003	0.024	-0.009	0.007	0.000
38	0.011	0.013	0.009	0.067	-0.003
39	0.005	0.023	-0.034	-0.001	0.007
40	-0.004	-0.003	-0.027	-0.003	0.027
41	-0.022	-0.019	-0.010	-0.008	0.050
42	0.013	0.021	0.001	0.033	0.033

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.006	-0.115	1.000		
9	0.006	0.039	0.125	1.000	
10	-0.001	0.002	-0.039	0.063	1.000
11	-0.014	-0.136	-0.030	0.026	-0.123
12	0.014	-0.003	0.105	-0.110	0.128
13	-0.018	0.049	0.005	0.008	-0.014
14	0.039	0.034	-0.029	0.008	0.026
15	0.017	-0.012	-0.013	0.027	0.045
16	-0.025	0.004	0.002	0.008	0.003
17	-0.035	0.003	-0.012	-0.012	0.004
18	-0.029	0.022	-0.014	-0.010	0.013
19	0.020	-0.015	-0.003	0.001	-0.024
20	0.008	-0.012	0.051	0.010	-0.014
21	0.006	0.003	-0.058	-0.028	0.007

22	-0.043	0.014	0.026	-0.004	-0.017
23	-0.005	-0.009	0.002	-0.015	-0.020
24	-0.006	0.013	-0.014	0.028	0.013
25	-0.020	0.015	-0.040	-0.013	-0.025
26	-0.003	0.023	0.040	0.042	0.001
27	-0.009	0.046	0.011	0.031	0.026
28	0.033	-0.013	-0.032	0.030	0.033
29	-0.009	0.022	-0.030	0.005	-0.017
30	-0.005	0.003	0.037	0.001	0.042
31	0.004	-0.012	-0.049	-0.021	0.006
32	-0.006	0.014	-0.043	-0.029	0.002
33	0.029	0.025	0.027	0.008	0.009
34	-0.028	0.007	-0.027	-0.061	-0.006
35	-0.027	0.023	-0.010	-0.033	-0.006
36	-0.020	0.046	0.035	-0.015	-0.049
37	-0.005	-0.044	-0.028	-0.105	0.046
38	0.022	0.043	0.084	0.089	0.022
39	-0.028	0.002	0.024	0.001	-0.025
40	-0.046	0.013	0.030	-0.013	-0.029
41	-0.027	-0.004	-0.002	-0.013	-0.008
42	-0.013	-0.068	-0.125	-0.065	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.176	1.000			
13	-0.003	-0.015	1.000		
14	0.018	0.045	0.334	1.000	
15	-0.007	0.006	0.062	0.327	1.000
16	0.007	-0.032	-0.185	-0.175	-0.084
17	0.054	-0.022	-0.092	-0.142	-0.200
18	-0.025	0.046	0.023	0.016	-0.011
19	-0.026	0.010	0.115	0.105	0.023
20	-0.060	-0.011	0.029	0.053	0.207
21	0.029	0.010	-0.025	-0.014	-0.026
22	0.001	0.007	0.014	-0.032	0.026
23	0.011	0.036	0.207	0.103	0.017
24	-0.032	0.015	0.056	0.145	0.140
25	0.024	-0.022	-0.021	-0.067	-0.008
26	-0.003	0.015	0.009	0.004	0.035
27	0.022	0.039	0.026	-0.014	-0.023
28	-0.009	-0.017	-0.109	-0.131	-0.041

29	0.051	0.031	-0.025	-0.083	-0.160
30	-0.001	-0.001	0.076	0.055	0.023
31	0.002	0.001	-0.015	-0.020	-0.034
32	-0.007	0.014	0.008	-0.036	-0.001
33	0.000	0.002	0.026	0.009	0.002
34	-0.002	0.000	0.000	0.006	0.026
35	-0.010	0.036	-0.012	-0.031	-0.038
36	-0.030	0.001	0.022	-0.003	0.009
37	0.024	0.011	-0.072	-0.043	-0.003
38	0.060	0.046	0.074	0.080	0.021
39	-0.016	-0.011	0.032	0.060	0.048
40	-0.047	-0.020	0.031	0.022	0.004
41	-0.023	0.005	-0.019	-0.018	0.009
42	-0.004	0.020	-0.034	-0.047	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.025	-0.050	0.042	0.032	0.002
35	0.023	0.029	0.017	0.018	-0.040
36	0.036	0.068	-0.034	0.019	0.047
37	0.011	-0.018	0.000	-0.016	0.012
38	-0.034	-0.014	0.047	-0.002	0.007
39	-0.025	-0.049	0.002	-0.010	-0.035
40	-0.005	-0.004	-0.027	0.003	0.004

41	0.012	-0.003	-0.042	-0.034	-0.021
42	0.011	0.011	-0.025	0.023	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.042	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.056	0.023	-0.014	0.021	-0.028
35	-0.009	0.036	0.003	0.000	-0.039
36	0.015	0.025	-0.030	0.010	0.006
37	-0.032	0.016	-0.037	-0.014	-0.013
38	0.015	0.017	0.034	0.023	-0.003
39	0.030	-0.023	-0.004	-0.002	0.038
40	0.012	-0.042	-0.024	-0.012	0.030
41	0.006	0.000	-0.010	0.026	-0.013
42	-0.007	0.006	-0.014	-0.001	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.016	-0.009	0.006	0.000	0.010
35	0.034	-0.006	-0.009	0.010	0.018



36	0.049	-0.004	-0.005	-0.014	-0.017
37	0.004	-0.009	0.006	0.001	-0.016
38	-0.029	-0.004	-0.047	-0.013	0.057
39	0.012	-0.028	0.016	-0.012	-0.016
40	0.005	-0.004	0.037	0.027	-0.036
41	0.039	0.034	0.015	0.023	-0.021
42	-0.004	-0.010	-0.008	-0.004	-0.006

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.015	-0.036	0.009	1.000	
35	-0.013	-0.024	0.009	0.212	1.000
36	-0.020	-0.005	-0.036	0.005	-0.010
37	-0.026	-0.004	0.030	0.002	0.031
38	-0.001	-0.016	0.020	-0.015	0.007
39	0.005	0.010	0.025	0.009	-0.014
40	0.011	0.027	-0.001	0.029	0.009
41	0.050	-0.013	-0.027	-0.029	0.008
42	-0.026	0.008	0.005	0.013	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.290	1.000			
38	-0.075	-0.223	1.000		
39	0.036	0.019	-0.035	1.000	
40	0.019	0.027	-0.040	0.323	1.000
41	-0.018	0.069	-0.034	0.112	0.348
42	0.071	0.674	-0.231	0.043	0.015

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.043	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.018	38
300	1.005	13
400	1.002	36
500	1.010	38
600	1.006	38
700	1.002	6
800	1.004	42
900	1.003	42
1000	1.001	42

Effects of a single practice, drinking support

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010

	58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
SINSQU		1.130	2.691	0.000	8.62%	0.000	0.828	0.828
	58.000	2.493	5.864	6.150	8.62%	0.828	0.884	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.718 28.329

Posterior Predictive P-Value 0.516

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.167	0.051	0.001	0.066	0.263	*
CHOICE15	0.028	0.039	0.247	-0.053	0.106	
BULLY15	0.105	0.059	0.029	-0.004	0.229	
DUTIES15	-0.081	0.043	0.027	-0.170	0.002	
PRESS15	-0.046	0.040	0.123	-0.122	0.034	
KES15	0.805	0.095	0.000	0.614	0.990	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.052	0.077	0.239	-0.205	0.101	
SINSQU	-0.013	0.049	0.401	-0.118	0.075	

SINGLE WITH						
SINSQU	1.131	0.269	0.000	0.681	1.764	*

#### Means

SINGLE	0.050	0.140	0.366	-0.213	0.327	
SINSQU	1.131	0.209	0.000	0.717	1.559	*

#### Thresholds

KESCAT16\$1	-0.494	0.079	0.000	-0.667	-0.352	*
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#### Variances

SINGLE	1.135	0.212	0.000	0.812	1.631	*
SINSQU	2.510	0.471	0.000	1.779	3.617	*

#### Residual Variances

KESCAT16	0.046	0.044	0.000	0.003	0.170	*
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#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.123	0.037	0.001	0.049	0.192	*
CHOICE15	0.026	0.038	0.247	-0.050	0.100	
BULLY15	0.072	0.040	0.029	-0.003	0.155	

DUTIES15	-0.073	0.038	0.027	-0.149	0.002	
PRESS15	-0.044	0.038	0.123	-0.117	0.033	
KES15	0.397	0.040	0.000	0.313	0.474	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.128	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	



Between Level

KESCAT16 ON						
SINGLE	-0.246	0.369	0.239	-1.008	0.433	
SINSQU	-0.094	0.326	0.401	-0.657	0.593	
SINGLE WITH						
SINSQU	0.673	0.073	0.000	0.503	0.785	*
Means						
SINGLE	0.046	0.129	0.366	-0.199	0.298	
SINSQU	0.719	0.146	0.000	0.425	1.003	*
Thresholds						
KESCAT16\$1	-2.104	1.235	0.000	-5.960	-1.032	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.833	0.179	0.000	0.294	0.992	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.224	0.034	0.000	0.159	0.292

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.167	0.179	0.000	0.008	0.706

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16		_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15		0	0	0	0	0
KES15		0	0	0	0	0
CHOICE15		0	0	0	0	0
BULLY15		0	0	0	0	0
PRESS15		0	0	0	0	0
DUTIES15		0	0	0	0	0

	LAMBDA	PRESS15	DUTIES15
KESCAT16		_____ 0	_____ 0
PHY15		0	0
KES15		0	0
CHOICE15		0	0
BULLY15		0	0
PRESS15		0	0
DUTIES15		0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>

0	0	0
---	---	---

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/> 0.000	<hr/> 0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
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KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
PRESS15		DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA		
PRESS15		DUTIES15
<u>0.000</u>	<u>0.000</u>	

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15
<u>0.000</u>	<u>0.000</u>	

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u></u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU		
KESCAT16	SINGLE	SINSQU
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA



	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.715	1.899

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.694	
SINSQU	0.000	0.000	2.624

#### PRIORS FOR ALL PARAMETERS

Parameter	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925472D-04	-0.649570D-04	0.111155D-02		
4	0.451967D-04	0.736593D-04	-0.136574D-03	0.544176D-03	
5	0.101068D-03	0.445923D-04	-0.215390D-03	0.177236D-03	0.108756D-02
6	-0.408478D-04	-0.473570D-04	0.976879D-04	-0.161991D-03	-0.253071D-03
7	-0.258908D-04	-0.127905D-04	-0.667670D-04	-0.116573D-04	0.243747D-04
8	0.708727D-04	-0.100311D-04	0.771524D-04	-0.128450D-04	-0.607872D-04
9	0.153046D-04	0.129317D-04	0.381909D-04	0.204463D-04	0.635066D-04
10	-0.105181D-04	0.309897D-04	0.340456D-04	0.104375D-04	0.393204D-04
11	0.346507D-04	0.105734D-04	-0.195311D-04	-0.135373D-04	0.141791D-04
12	0.144117D-05	0.160016D-04	-0.184091D-04	0.128536D-04	-0.909716D-04
13	0.611672D-04	0.212397D-04	-0.183474D-04	0.545307D-06	0.323117D-04
14	-0.108303D-05	0.118216D-04	-0.293227D-05	-0.151511D-04	-0.196788D-04
15	0.586063D-05	0.141449D-05	0.195734D-04	-0.166308D-04	-0.973904D-05
16	-0.436375D-04	-0.212689D-04	0.228935D-05	0.727838D-05	-0.173932D-04
17	0.582377D-06	0.109616D-04	-0.788368D-05	0.177314D-06	0.138568D-04
18	-0.383009D-04	-0.125981D-05	-0.340698D-04	0.775348D-05	0.209157D-04
19	0.997785D-05	0.174709D-04	0.153263D-04	-0.704465D-05	-0.129156D-04
20	0.517314D-05	0.215631D-05	0.654376D-06	0.933584D-05	0.687724D-05
21	0.833368D-05	-0.828594D-05	0.110188D-04	0.129890D-05	-0.288361D-04
22	0.169883D-04	0.430985D-05	-0.562085D-05	0.192014D-04	0.568365D-04
23	0.254782D-04	0.125235D-04	0.829025D-05	-0.152988D-04	0.219547D-04
24	0.452042D-05	0.211834D-05	0.163338D-04	0.962478D-05	0.159490D-04
25	-0.286572D-05	-0.389213D-05	-0.174105D-04	0.186680D-04	-0.512011D-05
26	-0.326833D-05	-0.116808D-04	0.199453D-05	0.236674D-04	0.304951D-04
27	0.343554D-04	-0.451749D-05	-0.246042D-04	0.183566D-04	0.476318D-04
28	-0.949369D-05	-0.209361D-04	-0.877790D-05	-0.345239D-04	-0.194393D-04
29	-0.212789D-05	0.179146D-05	-0.109399D-04	-0.408754D-05	0.198034D-04
30	-0.612432D-05	-0.126146D-04	-0.169595D-04	0.102727D-04	0.467763D-04
31	-0.881864D-05	0.161165D-05	0.306309D-04	-0.184837D-04	-0.477573D-05
32	-0.428924D-04	0.404053D-05	0.729565D-04	-0.344780D-04	-0.114721D-04
33	-0.106660D-05	0.622358D-05	-0.419986D-04	0.265173D-04	-0.689982D-05
34	-0.228687D-04	-0.362368D-04	0.415394D-04	0.148994D-03	0.289787D-04
35	0.212898D-04	-0.295063D-04	-0.786692D-04	0.940308D-04	0.196568D-04
36	-0.333160D-04	-0.127219D-04	0.515885D-04	0.764487D-04	0.343905D-04
37	0.220591D-04	0.265728D-04	-0.394735D-04	-0.100746D-04	0.383509D-04
38	0.229904D-04	0.126986D-04	0.194274D-04	0.580838D-04	0.616027D-05
39	-0.251081D-04	0.343970D-04	-0.278569D-03	-0.263174D-04	0.216453D-03
40	-0.918793D-04	-0.336770D-04	-0.209250D-03	-0.311396D-04	0.423350D-03
41	-0.232913D-03	-0.119356D-03	-0.142607D-03	-0.503162D-04	0.787908D-03
42	0.595970D-04	0.380071D-04	-0.217814D-04	0.413298D-04	0.117523D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881831D-03				
7	-0.569461D-05	0.259133D-02			
8	-0.911009D-05	-0.573192D-03	0.905804D-02		
9	0.491543D-05	0.896437D-04	0.474760D-03	0.152529D-02	
10	-0.252341D-05	0.508707D-05	-0.223974D-03	0.150602D-03	0.351460D-02
11	-0.166946D-04	-0.271385D-03	-0.124945D-03	0.385910D-04	-0.286603D-03
12	0.187943D-04	-0.108575D-04	0.413904D-03	-0.178052D-03	0.324400D-03
13	-0.161092D-04	0.753908D-04	0.109649D-04	0.931023D-05	-0.216550D-04
14	0.166906D-04	0.264393D-04	-0.387768D-04	0.556593D-05	0.227377D-04
15	0.693236D-05	-0.880385D-05	-0.145741D-04	0.144653D-04	0.357865D-04
16	-0.201790D-04	0.383966D-05	0.131141D-04	0.994239D-05	0.413993D-05
17	-0.197701D-04	0.190856D-05	-0.243562D-04	-0.804483D-05	0.580246D-05
18	-0.428565D-04	0.528676D-04	-0.760725D-04	-0.231913D-04	0.319882D-04
19	0.116562D-04	-0.137441D-04	-0.230252D-05	0.266052D-05	-0.267282D-04
20	0.330081D-05	-0.954053D-05	0.673013D-04	0.709747D-05	-0.111466D-04
21	0.472594D-05	0.573016D-05	-0.144547D-03	-0.304133D-04	0.110786D-04
22	-0.325101D-04	0.165621D-04	0.649842D-04	-0.249031D-05	-0.262219D-04
23	-0.409891D-05	-0.860399D-05	0.775218D-05	-0.149519D-04	-0.302192D-04
24	-0.330459D-05	0.125406D-04	-0.194147D-04	0.220209D-04	0.126846D-04
25	-0.215312D-04	0.286901D-04	-0.137881D-03	-0.240004D-04	-0.497728D-04
26	-0.222803D-05	0.274996D-04	0.101932D-03	0.450909D-04	0.164423D-05
27	-0.132911D-04	0.116877D-03	0.611197D-04	0.569393D-04	0.777237D-04
28	0.255155D-04	-0.196618D-04	-0.794734D-04	0.305441D-04	0.501808D-04
29	-0.446946D-05	0.187172D-04	-0.473439D-04	0.394459D-05	-0.176702D-04
30	-0.526868D-05	0.483547D-05	0.115979D-03	0.536715D-05	0.833690D-04
31	0.260265D-05	-0.125684D-04	-0.113293D-03	-0.218826D-04	0.943258D-05
32	-0.577851D-05	0.223981D-04	-0.139234D-03	-0.393133D-04	0.389689D-05
33	0.387479D-04	0.574949D-04	0.113201D-03	0.125489D-04	0.215542D-04
34	-0.118158D-03	0.507527D-04	-0.317193D-03	-0.352791D-03	-0.335212D-04
35	-0.203513D-03	0.242573D-03	-0.422378D-03	-0.457322D-03	-0.112565D-03
36	-0.332768D-04	0.109816D-03	0.607582D-03	-0.170373D-04	-0.172330D-03
37	-0.404852D-05	-0.182191D-03	-0.427336D-03	-0.967516D-04	0.567760D-04
38	0.352649D-04	0.898326D-04	0.312854D-03	0.217565D-03	0.332888D-04
39	-0.311712D-03	0.657425D-04	0.556536D-03	-0.982001D-04	-0.400311D-03
40	-0.394711D-03	0.722664D-04	0.492125D-03	-0.193082D-03	-0.425380D-03
41	-0.401590D-03	-0.822423D-04	0.146296D-03	-0.246735D-03	-0.332825D-03
42	-0.335540D-04	-0.353794D-03	-0.126771D-02	-0.121104D-05	-0.188873D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.161441D-02				
12	0.299975D-03	0.185076D-02			
13	-0.403666D-05	-0.213159D-04	0.887201D-03		
14	0.105887D-04	0.281334D-04	0.144166D-03	0.209516D-03	
15	-0.504715D-05	0.299113D-05	0.245869D-04	0.632891D-04	0.178540D-03
16	0.497446D-05	-0.373462D-04	-0.152798D-03	-0.702401D-04	-0.312459D-04
17	0.418505D-04	-0.185209D-04	-0.515436D-04	-0.385935D-04	-0.503938D-04
18	-0.514649D-04	0.982030D-04	0.342578D-04	0.116022D-04	-0.744522D-05
19	-0.209099D-04	0.801807D-05	0.671966D-04	0.296099D-04	0.604227D-05
20	-0.328830D-04	-0.681508D-05	0.115414D-04	0.103531D-04	0.370386D-04
21	0.316319D-04	0.120416D-04	-0.192699D-04	-0.531858D-05	-0.922264D-05
22	0.141151D-05	0.770658D-05	0.109692D-04	-0.118989D-04	0.890518D-05
23	0.118888D-04	0.400407D-04	0.167278D-03	0.405009D-04	0.600943D-05
24	-0.252357D-04	0.121739D-04	0.306052D-04	0.384781D-04	0.344840D-04
25	0.358222D-04	-0.313243D-04	-0.228183D-04	-0.347965D-04	-0.407292D-05
26	-0.320871D-05	0.156387D-04	0.649227D-05	0.160692D-05	0.118890D-04
27	0.419980D-04	0.822956D-04	0.386168D-04	-0.102907D-04	-0.152352D-04
28	-0.105218D-04	-0.194708D-04	-0.849084D-04	-0.497649D-04	-0.142779D-04
29	0.350606D-04	0.221860D-04	-0.125901D-04	-0.204252D-04	-0.363763D-04
30	-0.128444D-05	-0.439996D-05	0.759271D-04	0.268204D-04	0.103169D-04
31	0.183952D-05	0.156975D-05	-0.109830D-04	-0.693209D-05	-0.112008D-04
32	-0.998416D-05	0.222035D-04	0.794325D-05	-0.177120D-04	-0.648089D-06
33	0.486018D-06	0.314858D-05	0.344711D-04	0.560526D-05	0.131573D-05
34	-0.178727D-04	0.127268D-04	0.990880D-05	0.163396D-04	0.485520D-04
35	-0.899838D-04	0.260073D-03	-0.165821D-04	-0.545485D-04	-0.515694D-04
36	-0.120166D-03	0.751783D-04	0.388669D-04	0.170254D-04	0.150754D-04
37	0.311686D-04	0.135578D-04	-0.673186D-04	-0.255624D-04	-0.743326D-05
38	0.962023D-04	0.581521D-04	0.832846D-04	0.525151D-04	0.121282D-04
39	-0.333455D-03	-0.145499D-03	0.206663D-03	0.135866D-03	0.966580D-04
40	-0.449312D-03	-0.135875D-03	0.104657D-03	0.209370D-04	0.338211D-04
41	-0.427627D-03	0.768988D-04	-0.248142D-03	-0.122308D-03	0.555889D-04
42	-0.465877D-04	0.102944D-03	-0.189858D-04	-0.413809D-04	-0.282448D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769033D-03				
17	0.156229D-03	0.354736D-03			
18	-0.227094D-03	-0.189533D-03	0.243860D-02		
19	-0.865726D-04	-0.203810D-04	0.315706D-04	0.382754D-03	

20	-0.222548D-04	-0.469558D-04	-0.745154D-05	0.626825D-04	0.180145D-03
21	0.291649D-04	0.785650D-04	-0.291553D-03	-0.493658D-04	-0.695863D-04
22	-0.111371D-04	-0.190826D-04	0.505342D-04	0.403930D-04	0.785151D-04
23	-0.105880D-03	-0.310544D-04	0.594931D-04	0.140431D-03	0.268038D-04
24	-0.243881D-04	-0.662571D-04	0.113907D-04	0.237769D-04	0.630461D-04
25	0.126757D-03	0.658685D-04	-0.445741D-03	-0.697472D-06	-0.137504D-04
26	-0.289026D-05	-0.194784D-04	0.621516D-04	0.586114D-04	0.497137D-04
27	-0.685867D-05	-0.268413D-04	0.178509D-03	0.227558D-04	0.209094D-04
28	0.981777D-04	0.245378D-04	-0.700874D-04	-0.123484D-03	-0.325893D-04
29	0.251681D-04	0.505855D-04	0.576276D-05	-0.167912D-04	-0.546328D-04
30	-0.612848D-04	-0.711091D-04	0.278710D-03	0.387283D-04	0.125546D-04
31	0.719743D-05	0.232428D-04	-0.156353D-05	-0.352370D-04	-0.495649D-04
32	0.705852D-05	0.327273D-05	-0.324237D-04	-0.122375D-04	-0.577026D-05
33	-0.298909D-05	-0.142662D-04	-0.379502D-04	-0.546764D-07	0.177402D-04
34	0.928093D-04	-0.134164D-03	0.303678D-03	0.888959D-04	0.287761D-05
35	0.180066D-03	0.967091D-05	0.331282D-03	0.132618D-03	-0.891127D-04
36	0.717092D-04	0.602579D-04	0.247631D-04	0.399491D-04	0.283909D-04
37	-0.240516D-04	-0.297836D-04	-0.341395D-04	-0.170325D-04	-0.371167D-05
38	-0.462056D-04	-0.127335D-04	0.709204D-04	0.845457D-05	0.763545D-05
39	-0.721014D-04	-0.126087D-03	-0.220287D-03	-0.538767D-04	-0.732489D-04
40	0.333256D-04	-0.326966D-04	-0.493984D-03	-0.977370D-04	-0.385020D-04
41	0.145601D-03	-0.430269D-04	-0.903238D-03	-0.314022D-03	-0.133445D-03
42	-0.206559D-04	-0.110815D-04	-0.688308D-04	0.344164D-04	0.148050D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679741D-03				
22	-0.137455D-03	0.652634D-03			
23	-0.300172D-04	0.352417D-04	0.732783D-03		
24	-0.239471D-04	0.149310D-04	0.119157D-03	0.338061D-03	
25	0.221874D-03	-0.480849D-04	-0.103106D-03	-0.980669D-04	0.129238D-02
26	-0.139752D-03	0.196791D-03	0.696573D-04	0.830285D-04	-0.137398D-03
27	-0.645700D-04	0.874756D-04	0.222589D-03	0.134553D-03	-0.395081D-03
28	0.286655D-04	-0.260014D-04	-0.206222D-03	-0.374999D-04	0.515273D-04
29	0.957966D-05	-0.238779D-04	-0.251945D-04	-0.784293D-04	0.282727D-04
30	-0.168749D-03	0.559448D-04	0.104516D-03	0.317050D-04	-0.300949D-03
31	0.801351D-04	-0.186269D-03	-0.155900D-04	-0.182935D-04	0.402010D-04
32	0.216974D-04	-0.449752D-04	-0.836262D-04	-0.752679D-04	0.166237D-03
33	-0.190256D-04	0.252408D-04	0.296517D-04	0.414201D-04	-0.419065D-04
34	-0.211112D-03	0.858690D-04	-0.532985D-04	0.522168D-04	-0.138676D-03
35	-0.199251D-03	0.223705D-03	-0.280797D-04	0.405260D-04	-0.327605D-03
36	-0.901801D-05	0.500239D-04	-0.479306D-04	0.437408D-04	-0.312359D-04

37	0.457975D-05	-0.173019D-05	-0.820305D-05	-0.332445D-04	0.542862D-04
38	0.160735D-04	0.193056D-04	0.435481D-04	0.280841D-04	0.629028D-06
39	0.137455D-03	-0.190614D-03	-0.924475D-04	-0.675567D-05	0.256552D-03
40	0.105072D-03	-0.192716D-03	-0.172387D-03	0.360286D-04	0.131811D-03
41	0.129023D-03	-0.205199D-04	-0.168171D-03	0.224166D-03	-0.169559D-03
42	0.262246D-04	-0.240628D-04	0.361365D-04	-0.907346D-05	0.109945D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650056D-03				
27	0.437893D-03	0.241821D-02			
28	-0.322725D-04	-0.687094D-04	0.686021D-03		
29	-0.368464D-04	-0.517630D-04	0.112373D-03	0.287873D-03	
30	0.842906D-04	0.150287D-03	-0.120986D-03	-0.785396D-04	0.112441D-02
31	-0.185730D-03	-0.123279D-03	0.743891D-04	0.729946D-04	-0.167924D-03
32	-0.234937D-03	-0.575803D-03	0.152329D-03	0.920796D-04	-0.231406D-03
33	0.833076D-04	0.153476D-03	-0.160492D-03	-0.131465D-03	0.271667D-03
34	0.545695D-04	-0.536963D-04	0.169774D-04	-0.368277D-05	0.436583D-04
35	0.209811D-03	-0.185890D-04	-0.255275D-04	0.220891D-04	0.154190D-03
36	0.765146D-04	0.322219D-05	-0.200498D-04	-0.281584D-04	-0.517317D-04
37	-0.319417D-04	-0.449727D-04	0.714701D-06	0.120572D-04	-0.121597D-04
38	-0.326103D-04	0.450958D-05	-0.600607D-04	-0.781816D-05	0.816502D-04
39	0.104715D-03	-0.125587D-03	0.189943D-03	0.626979D-04	-0.228983D-03
40	0.156406D-03	0.188351D-03	0.255976D-03	0.152325D-03	-0.298466D-03
41	0.421368D-03	0.750190D-03	0.212407D-03	0.180917D-03	-0.295213D-03
42	-0.640194D-04	-0.403426D-04	-0.243348D-04	0.687100D-05	0.259710D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597723D-03				
32	0.241946D-03	0.115791D-02			
33	-0.349906D-03	-0.537309D-03	0.195423D-02		
34	0.433486D-04	-0.172082D-03	0.611080D-04	0.195236D-01	
35	-0.322657D-04	-0.291119D-03	0.121747D-03	0.185486D-01	0.434641D-01
36	-0.262290D-04	0.238689D-04	-0.114199D-03	0.259890D-03	0.598653D-03
37	0.177402D-05	-0.206067D-04	0.775821D-04	-0.963397D-04	-0.111724D-03
38	0.549838D-05	-0.402882D-04	0.341165D-04	-0.824645D-04	-0.881368D-05
39	0.100802D-03	0.138164D-03	0.736745D-04	0.395682D-03	0.871150D-04
40	0.232906D-03	0.128311D-03	-0.186092D-03	0.214287D-03	0.466420D-03
41	0.591618D-03	-0.173118D-03	-0.554895D-03	-0.166711D-02	-0.684417D-03

42 -0.476792D-05 0.192869D-04 0.947973D-05 -0.316312D-05 -0.116720D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.584983D-02				
37	-0.269101D-02	0.244233D-02			
38	0.255342D-03	-0.607602D-03	0.192016D-02		
39	-0.152184D-03	0.241351D-03	-0.464101D-03	0.449105D-01	
40	-0.385250D-03	0.424729D-03	-0.503661D-03	0.452812D-01	0.725321D-01
41	0.182650D-04	0.837613D-03	-0.636988D-03	0.474048D-01	0.995644D-01
42	-0.181194D-02	0.236369D-02	-0.570780D-03	0.868806D-04	-0.419252D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.221419D+00	
42	0.446643D-03	0.628739D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.015	-0.039	-0.010	0.015
8	0.030	-0.006	0.024	-0.006	-0.019
9	0.016	0.020	0.029	0.022	0.049
10	-0.007	0.031	0.017	0.008	0.020
11	0.035	0.016	-0.015	-0.014	0.011
12	0.001	0.022	-0.013	0.013	-0.064
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.023	-0.015	-0.020



20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.057	-0.023
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.007	-0.016	0.009	0.046	0.006
35	0.004	-0.008	-0.011	0.019	0.003
36	-0.018	-0.010	0.020	0.043	0.014
37	0.018	0.032	-0.024	-0.009	0.024
38	0.021	0.017	0.013	0.057	0.004
39	-0.005	0.010	-0.039	-0.005	0.031
40	-0.014	-0.008	-0.023	-0.005	0.048
41	-0.020	-0.015	-0.009	-0.005	0.051
42	0.031	0.029	-0.008	0.022	0.045

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.003	-0.118	1.000		
9	0.004	0.045	0.128	1.000	
10	-0.001	0.002	-0.040	0.065	1.000
11	-0.014	-0.133	-0.033	0.025	-0.120
12	0.015	-0.005	0.101	-0.106	0.127
13	-0.018	0.050	0.004	0.008	-0.012
14	0.039	0.036	-0.028	0.010	0.026
15	0.017	-0.013	-0.011	0.028	0.045
16	-0.025	0.003	0.005	0.009	0.003
17	-0.035	0.002	-0.014	-0.011	0.005
18	-0.029	0.021	-0.016	-0.012	0.011
19	0.020	-0.014	-0.001	0.003	-0.023
20	0.008	-0.014	0.053	0.014	-0.014
21	0.006	0.004	-0.058	-0.030	0.007

22	-0.043	0.013	0.027	-0.002	-0.017
23	-0.005	-0.006	0.003	-0.014	-0.019
24	-0.006	0.013	-0.011	0.031	0.012
25	-0.020	0.016	-0.040	-0.017	-0.023
26	-0.003	0.021	0.042	0.045	0.001
27	-0.009	0.047	0.013	0.030	0.027
28	0.033	-0.015	-0.032	0.030	0.032
29	-0.009	0.022	-0.029	0.006	-0.018
30	-0.005	0.003	0.036	0.004	0.042
31	0.004	-0.010	-0.049	-0.023	0.007
32	-0.006	0.013	-0.043	-0.030	0.002
33	0.030	0.026	0.027	0.007	0.008
34	-0.028	0.007	-0.024	-0.065	-0.004
35	-0.033	0.023	-0.021	-0.056	-0.009
36	-0.015	0.028	0.083	-0.006	-0.038
37	-0.003	-0.072	-0.091	-0.050	0.019
38	0.027	0.040	0.075	0.127	0.013
39	-0.050	0.006	0.028	-0.012	-0.032
40	-0.049	0.005	0.019	-0.018	-0.027
41	-0.029	-0.003	0.003	-0.013	-0.012
42	-0.014	-0.088	-0.168	0.000	-0.040

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.174	1.000			
13	-0.003	-0.017	1.000		
14	0.018	0.045	0.334	1.000	
15	-0.009	0.005	0.062	0.327	1.000
16	0.004	-0.031	-0.185	-0.175	-0.084
17	0.055	-0.023	-0.092	-0.142	-0.200
18	-0.026	0.046	0.023	0.016	-0.011
19	-0.027	0.010	0.115	0.105	0.023
20	-0.061	-0.012	0.029	0.053	0.207
21	0.030	0.011	-0.025	-0.014	-0.026
22	0.001	0.007	0.014	-0.032	0.026
23	0.011	0.034	0.207	0.103	0.017
24	-0.034	0.015	0.056	0.145	0.140
25	0.025	-0.020	-0.021	-0.067	-0.008
26	-0.003	0.014	0.009	0.004	0.035
27	0.021	0.039	0.026	-0.014	-0.023
28	-0.010	-0.017	-0.109	-0.131	-0.041

29	0.051	0.030	-0.025	-0.083	-0.160
30	-0.001	-0.003	0.076	0.055	0.023
31	0.002	0.001	-0.015	-0.020	-0.034
32	-0.007	0.015	0.008	-0.036	-0.001
33	0.000	0.002	0.026	0.009	0.002
34	-0.003	0.002	0.002	0.008	0.026
35	-0.011	0.029	-0.003	-0.018	-0.019
36	-0.039	0.023	0.017	0.015	0.015
37	0.016	0.006	-0.046	-0.036	-0.011
38	0.055	0.031	0.064	0.083	0.021
39	-0.039	-0.016	0.033	0.044	0.034
40	-0.042	-0.012	0.013	0.005	0.009
41	-0.023	0.004	-0.018	-0.018	0.009
42	-0.015	0.030	-0.008	-0.036	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.118	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.044	0.033	0.002
35	0.031	0.002	0.032	0.033	-0.032
36	0.034	0.042	0.007	0.027	0.028
37	-0.018	-0.032	-0.014	-0.018	-0.006
38	-0.038	-0.015	0.033	0.010	0.013
39	-0.012	-0.032	-0.021	-0.013	-0.026
40	0.004	-0.006	-0.037	-0.019	-0.011

41	0.011	-0.005	-0.039	-0.034	-0.021
42	-0.009	-0.007	-0.018	0.022	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.017	0.022	0.025	0.051	-0.026
34	-0.058	0.024	-0.014	0.020	-0.028
35	-0.037	0.042	-0.005	0.011	-0.044
36	-0.005	0.026	-0.023	0.031	-0.011
37	0.004	-0.001	-0.006	-0.037	0.031
38	0.014	0.017	0.037	0.035	0.000
39	0.025	-0.035	-0.016	-0.002	0.034
40	0.015	-0.028	-0.024	0.007	0.014
41	0.011	-0.002	-0.013	0.026	-0.010
42	0.013	-0.012	0.017	-0.006	0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.015	-0.008	0.005	-0.002	0.009
35	0.039	-0.002	-0.005	0.006	0.022

36	0.039	0.001	-0.010	-0.022	-0.020
37	-0.025	-0.019	0.001	0.014	-0.007
38	-0.029	0.002	-0.052	-0.011	0.056
39	0.019	-0.012	0.034	0.017	-0.032
40	0.023	0.014	0.036	0.033	-0.033
41	0.035	0.032	0.017	0.023	-0.019
42	-0.032	-0.010	-0.012	0.005	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.013	-0.036	0.010	1.000	
35	-0.006	-0.041	0.013	0.637	1.000
36	-0.014	0.009	-0.034	0.024	0.038
37	0.001	-0.012	0.036	-0.014	-0.011
38	0.005	-0.027	0.018	-0.013	-0.001
39	0.019	0.019	0.008	0.013	0.002
40	0.035	0.014	-0.016	0.006	0.008
41	0.051	-0.011	-0.027	-0.025	-0.007
42	-0.002	0.007	0.003	0.000	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.712	1.000			
38	0.076	-0.281	1.000		
39	-0.009	0.023	-0.050	1.000	
40	-0.019	0.032	-0.043	0.793	1.000
41	0.001	0.036	-0.031	0.475	0.786
42	-0.299	0.603	-0.164	0.005	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.012	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.017	38
300	1.005	13
400	1.001	22
500	1.009	38
600	1.007	38
700	1.002	6
800	1.003	42
900	1.003	42
1000	1.001	42

Effects of a single practice, physical health

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330



	58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
SINSQU		1.034	1.424	0.032	5.17%	0.130	0.137	0.137
	58.000	2.007	0.502	4.162	13.79%	0.828	1.300	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.563 28.972

Posterior Predictive P-Value 0.529

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.161	0.051	0.001	0.061	0.258	*
CHOICE15	0.029	0.039	0.235	-0.050	0.106	
BULLY15	0.103	0.059	0.035	-0.006	0.224	
DUTIES15	-0.076	0.043	0.030	-0.164	0.005	
PRESS15	-0.052	0.040	0.105	-0.128	0.028	
KES15	0.806	0.094	0.000	0.619	0.993	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.051	0.065	0.223	-0.184	0.076	
SINSQU	-0.093	0.051	0.034	-0.195	0.009	

SINGLE WITH						
SINSQU	0.719	0.211	0.000	0.354	1.188	*

#### Means

SINGLE	0.207	0.131	0.057	-0.041	0.470	
SINSQU	1.043	0.189	0.000	0.662	1.426	*

#### Thresholds

KESCAT16\$1	-0.548	0.064	0.000	-0.673	-0.424	*
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#### Variances

SINGLE	1.000	0.186	0.000	0.708	1.439	*
SINSQU	2.021	0.379	0.000	1.431	2.888	*

#### Residual Variances

KESCAT16	0.017	0.028	0.000	0.001	0.100	*
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#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.119	0.037	0.001	0.045	0.190	*
CHOICE15	0.027	0.037	0.235	-0.048	0.102	
BULLY15	0.070	0.040	0.035	-0.004	0.153	

DUTIES15	-0.069	0.038	0.030	-0.144	0.004	
PRESS15	-0.049	0.038	0.105	-0.120	0.027	
KES15	0.398	0.040	0.000	0.315	0.475	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	-0.226	0.283	0.223	-0.750	0.349	
SINSQU	-0.617	0.274	0.034	-0.994	0.069	
SINGLE WITH						
SINSQU	0.508	0.098	0.000	0.286	0.669	*
Means						
SINGLE	0.208	0.130	0.057	-0.038	0.465	
SINSQU	0.733	0.148	0.000	0.435	1.024	*
Thresholds						
KESCAT16\$1	-2.376	0.885	0.000	-4.747	-1.378	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.361	0.247	0.000	0.019	0.885	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.222	0.033	0.000	0.158	0.288

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.639	0.247	0.000	0.115	0.981

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16		_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15		0	0	0	0	0
KES15		0	0	0	0	0
CHOICE15		0	0	0	0	0
BULLY15		0	0	0	0	0
PRESS15		0	0	0	0	0
DUTIES15		0	0	0	0	0

	LAMBDA	PRESS15	DUTIES15
KESCAT16		_____ 0	_____ 0
PHY15		0	0
KES15		0	0
CHOICE15		0	0
BULLY15		0	0
PRESS15		0	0
DUTIES15		0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>



0	0	0
---	---	---

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

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0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

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0.000      0.000      0.000      0.000      0.000

NU  
PRESS15      DUTIES15  

---

0.000      0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000

	DUTIES15
DUTIES15	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU
KESCAT16
<u>0.000</u>

SINGLE
<u>0.000</u>

SINSQU
<u>0.000</u>

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.303	0.702

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.305	
SINSQU	0.000	0.000	0.479

# PRIORS FOR ALL PARAMETERS

	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925432D-04	-0.649485D-04	0.111151D-02		
4	0.451919D-04	0.736545D-04	-0.136548D-03	0.544176D-03	
5	0.101063D-03	0.445898D-04	-0.215383D-03	0.177220D-03	0.108755D-02
6	-0.408561D-04	-0.473452D-04	0.976282D-04	-0.161980D-03	-0.253046D-03
7	-0.265181D-04	-0.146629D-04	-0.678217D-04	-0.123687D-04	0.291111D-04
8	0.677528D-04	-0.147537D-04	0.865639D-04	-0.259693D-04	-0.647017D-04
9	0.145835D-04	0.109374D-04	0.406805D-04	0.163021D-04	0.629397D-04
10	-0.942539D-05	0.300446D-04	0.313719D-04	0.141099D-04	0.425319D-04
11	0.341509D-04	0.116814D-04	-0.197252D-04	-0.110111D-04	0.126501D-04
12	-0.146140D-06	0.135711D-04	-0.168769D-04	0.116588D-04	-0.936946D-04
13	0.611680D-04	0.212386D-04	-0.183303D-04	0.538399D-06	0.322811D-04
14	-0.108335D-05	0.118212D-04	-0.293744D-05	-0.151631D-04	-0.196810D-04
15	0.585996D-05	0.141452D-05	0.195648D-04	-0.166358D-04	-0.973969D-05
16	-0.436322D-04	-0.212662D-04	0.226465D-05	0.727398D-05	-0.173920D-04
17	0.583229D-06	0.109636D-04	-0.789839D-05	0.168676D-06	0.138890D-04
18	-0.383212D-04	-0.125202D-05	-0.341308D-04	0.774561D-05	0.209223D-04
19	0.997861D-05	0.174753D-04	0.153400D-04	-0.703190D-05	-0.129308D-04
20	0.517396D-05	0.215558D-05	0.653670D-06	0.934699D-05	0.686502D-05
21	0.831882D-05	-0.828308D-05	0.110374D-04	0.128494D-05	-0.288386D-04
22	0.169814D-04	0.430248D-05	-0.559650D-05	0.192370D-04	0.567690D-04
23	0.254731D-04	0.125213D-04	0.830992D-05	-0.152994D-04	0.219320D-04
24	0.451672D-05	0.211479D-05	0.163368D-04	0.963173D-05	0.159308D-04
25	-0.285778D-05	-0.389428D-05	-0.173715D-04	0.186687D-04	-0.510837D-05
26	-0.327387D-05	-0.116842D-04	0.202189D-05	0.236935D-04	0.304875D-04
27	0.343679D-04	-0.450667D-05	-0.246924D-04	0.184075D-04	0.476525D-04
28	-0.948857D-05	-0.209519D-04	-0.881140D-05	-0.345209D-04	-0.193928D-04
29	-0.212588D-05	0.178288D-05	-0.109484D-04	-0.408669D-05	0.198321D-04
30	-0.610029D-05	-0.126454D-04	-0.169445D-04	0.102448D-04	0.467283D-04
31	-0.880088D-05	0.162194D-05	0.306052D-04	-0.184888D-04	-0.472632D-05
32	-0.428803D-04	0.406716D-05	0.729017D-04	-0.344685D-04	-0.114594D-04
33	-0.109168D-05	0.622936D-05	-0.419795D-04	0.264891D-04	-0.689622D-05
34	-0.198017D-04	-0.322384D-04	0.344651D-04	0.142302D-03	0.296625D-04
35	0.353826D-04	-0.181460D-04	-0.996430D-04	0.382109D-04	0.126786D-04
36	-0.883605D-05	-0.166193D-04	-0.235286D-04	0.523335D-04	0.214536D-04
37	0.183177D-04	0.262371D-04	-0.214939D-04	0.295788D-05	0.187819D-04
38	0.972958D-05	0.675782D-05	0.375047D-05	0.438612D-04	0.503279D-07
39	0.734724D-06	0.511319D-04	-0.246760D-03	-0.147852D-04	0.120721D-03
40	-0.535040D-04	-0.212423D-04	-0.181626D-03	-0.207494D-04	0.284693D-03
41	-0.195559D-03	-0.109118D-03	-0.117798D-03	-0.516997D-04	0.628332D-03
42	0.493024D-04	0.258219D-04	-0.250389D-05	0.525619D-04	0.925701D-04

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881831D-03				
7	-0.471664D-05	0.258490D-02			
8	-0.772098D-06	-0.583715D-03	0.886134D-02		
9	0.809502D-05	0.839942D-04	0.457499D-03	0.150260D-02	
10	-0.649435D-05	0.768951D-05	-0.225577D-03	0.146004D-03	0.348968D-02
11	-0.186842D-04	-0.272276D-03	-0.115581D-03	0.380907D-04	-0.288927D-03
12	0.183580D-04	-0.875588D-05	0.404066D-03	-0.178523D-03	0.325289D-03
13	-0.161099D-04	0.733986D-04	0.465484D-05	0.767028D-05	-0.214846D-04
14	0.167054D-04	0.258576D-04	-0.416962D-04	0.412752D-05	0.226743D-04
15	0.693204D-05	-0.662619D-05	-0.163421D-04	0.136300D-04	0.362598D-04
16	-0.201631D-04	0.277782D-05	0.100995D-04	0.128877D-04	0.214752D-05
17	-0.197650D-04	0.204944D-05	-0.272999D-04	-0.780268D-05	0.633769D-05
18	-0.428480D-04	0.556029D-04	-0.674072D-04	-0.228428D-04	0.359384D-04
19	0.116529D-04	-0.150697D-04	-0.996081D-05	-0.677135D-06	-0.259730D-04
20	0.330519D-05	-0.992156D-05	0.592106D-04	0.627057D-05	-0.113504D-04
21	0.473528D-05	0.386926D-05	-0.147496D-03	-0.297511D-04	0.103135D-04
22	-0.325268D-04	0.166228D-04	0.541450D-04	-0.165644D-05	-0.258575D-04
23	-0.408601D-05	-0.128874D-04	0.529221D-06	-0.190219D-04	-0.288855D-04
24	-0.330489D-05	0.110369D-04	-0.302622D-04	0.182446D-04	0.150841D-04
25	-0.215590D-04	0.269324D-04	-0.139419D-03	-0.135878D-04	-0.525964D-04
26	-0.222516D-05	0.283724D-04	0.886791D-04	0.447607D-04	0.236446D-05
27	-0.132345D-04	0.115360D-03	0.453732D-04	0.573224D-04	0.741414D-04
28	0.255203D-04	-0.152473D-04	-0.735664D-04	0.336031D-04	0.496527D-04
29	-0.447778D-05	0.196975D-04	-0.467581D-04	0.481933D-05	-0.177324D-04
30	-0.523217D-05	0.227066D-05	0.110487D-03	-0.143694D-05	0.846104D-04
31	0.258813D-05	-0.134306D-04	-0.112762D-03	-0.226413D-04	0.772330D-05
32	-0.577627D-05	0.255423D-04	-0.134920D-03	-0.385252D-04	0.135262D-05
33	0.387386D-04	0.542433D-04	0.114614D-03	0.134631D-04	0.213224D-04
34	-0.109708D-03	0.551279D-04	-0.317877D-03	-0.324114D-03	-0.190776D-04
35	-0.174578D-03	0.246221D-03	-0.260108D-03	-0.355636D-03	-0.760421D-04
36	0.251301D-04	0.585865D-04	0.996103D-04	0.995516D-04	-0.103364D-03
37	-0.399856D-04	-0.704920D-04	-0.143415D-03	-0.252065D-03	0.108138D-03
38	0.248356D-04	0.626719D-04	0.753883D-04	0.660836D-04	0.482749D-04
39	-0.231912D-03	0.634993D-04	0.443038D-03	-0.308856D-04	-0.344286D-03
40	-0.313765D-03	0.101398D-03	0.499156D-03	-0.104582D-03	-0.373236D-03
41	-0.310447D-03	-0.782028D-04	0.692786D-04	-0.142731D-03	-0.276837D-03
42	-0.338435D-04	-0.257896D-03	-0.984159D-03	-0.123205D-03	-0.131447D-03



ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160715D-02				
12	0.307260D-03	0.183700D-02			
13	-0.500381D-05	-0.177653D-04	0.887203D-03		
14	0.107761D-04	0.282843D-04	0.144167D-03	0.209518D-03	
15	-0.366095D-05	0.274356D-05	0.245868D-04	0.632902D-04	0.178541D-03
16	0.915803D-05	-0.391057D-04	-0.152805D-03	-0.702289D-04	-0.312433D-04
17	0.412660D-04	-0.186083D-04	-0.515499D-04	-0.385884D-04	-0.503926D-04
18	-0.448409D-04	0.955973D-04	0.342593D-04	0.115757D-04	-0.743336D-05
19	-0.189906D-04	0.847754D-05	0.671951D-04	0.296045D-04	0.604280D-05
20	-0.296786D-04	-0.696004D-05	0.115458D-04	0.103491D-04	0.370366D-04
21	0.297547D-04	0.100387D-04	-0.192703D-04	-0.530846D-05	-0.922151D-05
22	0.288232D-05	0.707488D-05	0.109615D-04	-0.118859D-04	0.891737D-05
23	0.111068D-04	0.407659D-04	0.167286D-03	0.404920D-04	0.601121D-05
24	-0.235556D-04	0.117464D-04	0.305955D-04	0.384780D-04	0.344841D-04
25	0.332443D-04	-0.318560D-04	-0.228258D-04	-0.347858D-04	-0.407969D-05
26	0.723217D-06	0.186823D-04	0.648949D-05	0.160488D-05	0.118993D-04
27	0.448041D-04	0.846537D-04	0.386227D-04	-0.102894D-04	-0.151745D-04
28	-0.984678D-05	-0.183192D-04	-0.849122D-04	-0.497591D-04	-0.142766D-04
29	0.338986D-04	0.227500D-04	-0.126001D-04	-0.204248D-04	-0.363751D-04
30	0.134406D-06	-0.187302D-05	0.759368D-04	0.268122D-04	0.103323D-04
31	0.120506D-06	0.246233D-05	-0.109795D-04	-0.694229D-05	-0.112145D-04
32	-0.746405D-05	0.198425D-04	0.793276D-05	-0.177154D-04	-0.681982D-06
33	0.981740D-06	-0.214540D-05	0.344704D-04	0.560160D-05	0.131873D-05
34	-0.435480D-05	0.102282D-04	0.461449D-05	0.135922D-04	0.457044D-04
35	-0.604600D-04	0.266788D-03	-0.347135D-04	-0.661990D-04	-0.707578D-04
36	-0.100732D-03	0.262465D-05	0.266569D-04	-0.236822D-05	0.121525D-04
37	0.143781D-03	0.236111D-04	-0.886378D-04	-0.227886D-04	0.218459D-05
38	0.852838D-04	0.530402D-04	0.551084D-04	0.300944D-04	0.970232D-05
39	-0.234018D-03	-0.127948D-03	0.198840D-03	0.149665D-03	0.102506D-03
40	-0.403138D-03	-0.146529D-03	0.131560D-03	0.384045D-04	0.211329D-04
41	-0.366598D-03	0.459773D-04	-0.211716D-03	-0.991209D-04	0.441638D-04
42	0.478036D-04	0.542717D-04	-0.296089D-04	-0.359482D-04	-0.228680D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769023D-03				
17	0.156204D-03	0.354720D-03			
18	-0.227034D-03	-0.189491D-03	0.243856D-02		
19	-0.865681D-04	-0.203795D-04	0.315578D-04	0.382765D-03	

20	-0.222506D-04	-0.469562D-04	-0.743860D-05	0.626901D-04	0.180150D-03
21	0.291405D-04	0.785535D-04	-0.291568D-03	-0.493707D-04	-0.695912D-04
22	-0.111616D-04	-0.191064D-04	0.505254D-04	0.403855D-04	0.785240D-04
23	-0.105872D-03	-0.310559D-04	0.594889D-04	0.140416D-03	0.267927D-04
24	-0.243657D-04	-0.662489D-04	0.113656D-04	0.237631D-04	0.630459D-04
25	0.126680D-03	0.658415D-04	-0.445716D-03	-0.660561D-06	-0.137314D-04
26	-0.290080D-05	-0.195000D-04	0.622101D-04	0.585941D-04	0.497116D-04
27	-0.682472D-05	-0.268159D-04	0.178488D-03	0.227191D-04	0.208881D-04
28	0.981702D-04	0.245366D-04	-0.700962D-04	-0.123481D-03	-0.325835D-04
29	0.251473D-04	0.505758D-04	0.576521D-05	-0.167911D-04	-0.546257D-04
30	-0.612669D-04	-0.710893D-04	0.278672D-03	0.387278D-04	0.125635D-04
31	0.717959D-05	0.232325D-04	-0.158953D-05	-0.352248D-04	-0.495632D-04
32	0.706853D-05	0.329847D-05	-0.325678D-04	-0.122187D-04	-0.576939D-05
33	-0.289773D-05	-0.142049D-04	-0.379352D-04	-0.586242D-07	0.177120D-04
34	0.878735D-04	-0.125228D-03	0.279530D-03	0.824759D-04	0.314903D-05
35	0.149777D-03	0.533398D-04	0.242062D-03	0.101035D-03	-0.925018D-04
36	0.422484D-04	0.849672D-04	-0.129339D-03	0.170481D-04	0.166127D-04
37	0.715671D-05	-0.796623D-05	0.436389D-04	0.739198D-05	-0.110421D-05
38	-0.216366D-04	-0.472799D-05	0.725583D-04	0.503472D-05	0.435827D-05
39	-0.992373D-04	-0.140884D-03	-0.982004D-04	-0.354312D-04	-0.735739D-04
40	0.390292D-05	-0.233661D-04	-0.360609D-03	-0.428849D-04	-0.145643D-04
41	0.116625D-03	-0.269439D-04	-0.758813D-03	-0.251431D-03	-0.107266D-03
42	-0.531372D-05	0.195340D-04	-0.655234D-04	0.513227D-04	0.757869D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679786D-03				
22	-0.137493D-03	0.652662D-03			
23	-0.299902D-04	0.352149D-04	0.732787D-03		
24	-0.239299D-04	0.149270D-04	0.119150D-03	0.338055D-03	
25	0.221883D-03	-0.480650D-04	-0.103058D-03	-0.980065D-04	0.129243D-02
26	-0.139728D-03	0.196821D-03	0.696359D-04	0.830112D-04	-0.137370D-03
27	-0.644990D-04	0.875408D-04	0.222531D-03	0.134515D-03	-0.394977D-03
28	0.286471D-04	-0.259725D-04	-0.206188D-03	-0.374753D-04	0.515171D-04
29	0.956214D-05	-0.238803D-04	-0.251650D-04	-0.784201D-04	0.282790D-04
30	-0.168749D-03	0.559204D-04	0.104461D-03	0.316919D-04	-0.300942D-03
31	0.801403D-04	-0.186269D-03	-0.155306D-04	-0.182635D-04	0.401945D-04
32	0.216690D-04	-0.449622D-04	-0.835752D-04	-0.752531D-04	0.166239D-03
33	-0.189563D-04	0.251948D-04	0.296117D-04	0.414123D-04	-0.418722D-04
34	-0.194770D-03	0.790831D-04	-0.502472D-04	0.500888D-04	-0.131084D-03
35	-0.126502D-03	0.196888D-03	-0.802089D-05	0.203070D-04	-0.289992D-03
36	0.522918D-05	0.382030D-04	-0.883961D-04	-0.126463D-04	0.510780D-04

37	-0.193109D-04	-0.101797D-04	-0.251011D-04	-0.668842D-05	-0.229941D-04
38	0.119616D-04	0.146167D-04	0.156564D-04	0.986770D-05	0.707075D-05
39	0.135226D-03	-0.157947D-03	-0.572564D-04	-0.135026D-04	0.259790D-03
40	0.790747D-04	-0.188472D-03	-0.141788D-03	-0.839920D-06	0.159606D-03
41	0.844489D-04	-0.112885D-04	-0.122424D-03	0.181017D-03	-0.151825D-03
42	0.210834D-04	-0.282755D-04	0.102350D-04	0.510775D-05	0.433138D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650038D-03				
27	0.437854D-03	0.241799D-02			
28	-0.322323D-04	-0.686766D-04	0.685978D-03		
29	-0.368244D-04	-0.517528D-04	0.112355D-03	0.287852D-03	
30	0.842230D-04	0.150184D-03	-0.120940D-03	-0.785205D-04	0.112434D-02
31	-0.185698D-03	-0.123214D-03	0.743274D-04	0.729578D-04	-0.167907D-03
32	-0.234913D-03	-0.575723D-03	0.152248D-03	0.920429D-04	-0.231376D-03
33	0.831990D-04	0.153323D-03	-0.160413D-03	-0.131380D-03	0.271561D-03
34	0.511784D-04	-0.564603D-04	0.172902D-04	-0.189559D-05	0.408751D-04
35	0.184868D-03	-0.276483D-04	-0.339115D-04	0.269270D-04	0.133096D-03
36	0.742742D-05	-0.397353D-04	-0.159173D-05	-0.413735D-05	-0.654642D-04
37	-0.153020D-04	-0.357481D-04	0.119844D-04	0.165580D-05	-0.169967D-04
38	-0.234944D-04	-0.197376D-04	-0.218697D-04	-0.606520D-05	0.402616D-04
39	0.724867D-04	-0.198331D-03	0.135652D-03	0.158199D-04	-0.169464D-03
40	0.876765D-04	0.764301D-04	0.210814D-03	0.114321D-03	-0.252102D-03
41	0.354834D-03	0.617294D-03	0.159594D-03	0.145685D-03	-0.249542D-03
42	-0.490975D-04	-0.285887D-04	-0.119863D-04	0.730431D-05	-0.320889D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597730D-03				
32	0.241949D-03	0.115788D-02			
33	-0.349903D-03	-0.537279D-03	0.195427D-02		
34	0.438220D-04	-0.160475D-03	0.554210D-04	0.171622D-01	
35	-0.468328D-04	-0.223068D-03	0.999274D-04	0.114675D-01	0.357533D-01
36	-0.207443D-04	-0.543335D-04	-0.115175D-03	-0.186713D-03	-0.297701D-03
37	0.970789D-05	0.553191D-04	0.805546D-04	0.236900D-03	0.493335D-03
38	-0.130319D-05	-0.311106D-05	0.255592D-04	-0.148724D-04	0.491134D-04
39	0.516274D-04	0.111316D-03	0.143619D-03	0.340255D-03	-0.176033D-03
40	0.137138D-03	0.143571D-03	-0.941058D-04	0.421437D-03	0.478696D-03
41	0.469534D-03	-0.153820D-03	-0.449664D-03	-0.132717D-02	-0.128953D-04

42 0.226802D-04 0.623448D-04 0.623449D-05 0.193465D-03 0.113933D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.425672D-02				
37	-0.157353D-02	0.262585D-02			
38	-0.108233D-03	-0.124562D-04	0.802267D-03		
39	0.701429D-04	0.237998D-03	-0.233963D-03	0.344695D-01	
40	0.319858D-05	0.249081D-03	-0.242361D-03	0.249124D-01	0.446650D-01
41	-0.681394D-03	0.793744D-03	-0.383283D-03	0.205250D-01	0.508397D-01
42	-0.296145D-03	0.164116D-02	-0.148168D-03	0.464389D-03	0.148814D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.143739D+00	
42	0.598868D-03	0.403722D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.017	-0.040	-0.010	0.017
8	0.029	-0.009	0.028	-0.012	-0.021
9	0.015	0.017	0.031	0.018	0.049
10	-0.006	0.031	0.016	0.010	0.022
11	0.035	0.017	-0.015	-0.012	0.010
12	0.000	0.019	-0.012	0.012	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.014	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.057	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.006	-0.015	0.008	0.047	0.007
35	0.008	-0.006	-0.016	0.009	0.002
36	-0.006	-0.015	-0.011	0.034	0.010
37	0.015	0.031	-0.013	0.002	0.011
38	0.014	0.014	0.004	0.066	0.000
39	0.000	0.017	-0.040	-0.003	0.020
40	-0.010	-0.006	-0.026	-0.004	0.041
41	-0.021	-0.017	-0.009	-0.006	0.050
42	0.032	0.024	-0.001	0.035	0.044

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.003	1.000			
8	0.000	-0.122	1.000		
9	0.007	0.043	0.125	1.000	
10	-0.004	0.003	-0.041	0.064	1.000
11	-0.016	-0.134	-0.031	0.025	-0.122
12	0.014	-0.004	0.100	-0.107	0.128
13	-0.018	0.048	0.002	0.007	-0.012
14	0.039	0.035	-0.031	0.007	0.027
15	0.017	-0.010	-0.013	0.026	0.046
16	-0.024	0.002	0.004	0.012	0.001
17	-0.035	0.002	-0.015	-0.011	0.006
18	-0.029	0.022	-0.015	-0.012	0.012
19	0.020	-0.015	-0.005	-0.001	-0.022
20	0.008	-0.015	0.047	0.012	-0.014
21	0.006	0.003	-0.060	-0.029	0.007

22	-0.043	0.013	0.023	-0.002	-0.017
23	-0.005	-0.009	0.000	-0.018	-0.018
24	-0.006	0.012	-0.017	0.026	0.014
25	-0.020	0.015	-0.041	-0.010	-0.025
26	-0.003	0.022	0.037	0.045	0.002
27	-0.009	0.046	0.010	0.030	0.026
28	0.033	-0.011	-0.030	0.033	0.032
29	-0.009	0.023	-0.029	0.007	-0.018
30	-0.005	0.001	0.035	-0.001	0.043
31	0.004	-0.011	-0.049	-0.024	0.005
32	-0.006	0.015	-0.042	-0.029	0.001
33	0.030	0.024	0.028	0.008	0.008
34	-0.028	0.008	-0.026	-0.064	-0.002
35	-0.031	0.026	-0.015	-0.049	-0.007
36	0.013	0.018	0.016	0.039	-0.027
37	-0.026	-0.027	-0.030	-0.127	0.036
38	0.030	0.044	0.028	0.060	0.029
39	-0.042	0.007	0.025	-0.004	-0.031
40	-0.050	0.009	0.025	-0.013	-0.030
41	-0.028	-0.004	0.002	-0.010	-0.012
42	-0.018	-0.080	-0.165	-0.050	-0.035

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.179	1.000			
13	-0.004	-0.014	1.000		
14	0.019	0.046	0.334	1.000	
15	-0.007	0.005	0.062	0.327	1.000
16	0.008	-0.033	-0.185	-0.175	-0.084
17	0.055	-0.023	-0.092	-0.142	-0.200
18	-0.023	0.045	0.023	0.016	-0.011
19	-0.024	0.010	0.115	0.105	0.023
20	-0.055	-0.012	0.029	0.053	0.207
21	0.028	0.009	-0.025	-0.014	-0.026
22	0.003	0.006	0.014	-0.032	0.026
23	0.010	0.035	0.207	0.103	0.017
24	-0.032	0.015	0.056	0.145	0.140
25	0.023	-0.021	-0.021	-0.067	-0.008
26	0.001	0.017	0.009	0.004	0.035
27	0.023	0.040	0.026	-0.014	-0.023
28	-0.009	-0.016	-0.109	-0.131	-0.041

29	0.050	0.031	-0.025	-0.083	-0.160
30	0.000	-0.001	0.076	0.055	0.023
31	0.000	0.002	-0.015	-0.020	-0.034
32	-0.005	0.014	0.008	-0.036	-0.001
33	0.001	-0.001	0.026	0.009	0.002
34	-0.001	0.002	0.001	0.007	0.026
35	-0.008	0.033	-0.006	-0.024	-0.028
36	-0.039	0.001	0.014	-0.003	0.014
37	0.070	0.011	-0.058	-0.031	0.003
38	0.075	0.044	0.065	0.073	0.026
39	-0.031	-0.016	0.036	0.056	0.041
40	-0.048	-0.016	0.021	0.013	0.007
41	-0.024	0.003	-0.019	-0.018	0.009
42	0.019	0.020	-0.016	-0.039	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.043	0.032	0.002
35	0.029	0.015	0.026	0.027	-0.036
36	0.023	0.069	-0.040	0.013	0.019
37	0.005	-0.008	0.017	0.007	-0.002
38	-0.028	-0.009	0.052	0.009	0.011
39	-0.019	-0.040	-0.011	-0.010	-0.030
40	0.001	-0.006	-0.035	-0.010	-0.005

41	0.011	-0.004	-0.041	-0.034	-0.021
42	-0.003	0.016	-0.021	0.041	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.042	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.023	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.057	0.024	-0.014	0.021	-0.028
35	-0.026	0.041	-0.002	0.006	-0.043
36	0.003	0.023	-0.050	-0.011	0.022
37	-0.014	-0.008	-0.018	-0.007	-0.012
38	0.016	0.020	0.020	0.019	0.007
39	0.028	-0.033	-0.011	-0.004	0.039
40	0.014	-0.035	-0.025	0.000	0.021
41	0.009	-0.001	-0.012	0.026	-0.011
42	0.013	-0.017	0.006	0.004	0.019

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.102	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.015	-0.009	0.005	-0.001	0.009
35	0.038	-0.003	-0.007	0.008	0.021



36	0.004	-0.012	-0.001	-0.004	-0.030
37	-0.012	-0.014	0.009	0.002	-0.010
38	-0.033	-0.014	-0.029	-0.013	0.042
39	0.015	-0.022	0.028	0.005	-0.027
40	0.016	0.007	0.038	0.032	-0.036
41	0.037	0.033	0.016	0.023	-0.020
42	-0.030	-0.009	-0.007	0.007	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.014	-0.036	0.010	1.000	
35	-0.010	-0.035	0.012	0.463	1.000
36	-0.013	-0.024	-0.040	-0.022	-0.024
37	0.008	0.032	0.036	0.035	0.051
38	-0.002	-0.003	0.020	-0.004	0.009
39	0.011	0.018	0.017	0.014	-0.005
40	0.027	0.020	-0.010	0.015	0.012
41	0.051	-0.012	-0.027	-0.027	0.000
42	0.015	0.029	0.002	0.023	0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.471	1.000			
38	-0.059	-0.009	1.000		
39	0.006	0.025	-0.044	1.000	
40	0.000	0.023	-0.040	0.635	1.000
41	-0.028	0.041	-0.036	0.292	0.634
42	-0.071	0.504	-0.082	0.039	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.025	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.015	38
300	1.010	37
400	1.013	37
500	1.007	38
600	1.004	38
700	1.002	6
800	1.004	42
900	1.003	42
1000	1.000	20

Effects of a single practice, psychological problems

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150

	58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SINSQU		0.985	0.833	0.010	3.45%	0.160	0.221	0.573
	58.000	0.898	-0.620	2.756	17.24%	1.188	1.392	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-24.102 29.272

Posterior Predictive P-Value 0.536

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.164	0.051	0.001	0.063	0.260	*
CHOICE15	0.028	0.039	0.239	-0.052	0.107	
BULLY15	0.108	0.059	0.026	0.000	0.229	
DUTIES15	-0.081	0.043	0.027	-0.169	0.003	
PRESS15	-0.048	0.040	0.117	-0.124	0.032	
KES15	0.804	0.095	0.000	0.616	0.990	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.088	0.073	0.116	-0.230	0.052	
SINSQU	-0.006	0.073	0.469	-0.158	0.136	

SINGLE WITH						
SINSQU	0.498	0.142	0.000	0.255	0.814	*

#### Means

SINGLE	0.101	0.130	0.222	-0.145	0.362	
SINSQU	0.990	0.127	0.000	0.738	1.248	*

#### Thresholds

KESCAT16\$1	-0.483	0.087	0.000	-0.657	-0.311	*
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#### Variances

SINGLE	0.982	0.183	0.000	0.699	1.416	*
SINSQU	0.914	0.171	0.000	0.647	1.307	*

#### Residual Variances

KESCAT16	0.032	0.039	0.000	0.001	0.151	*
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### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.121	0.037	0.001	0.047	0.191	*
CHOICE15	0.027	0.037	0.239	-0.050	0.101	
BULLY15	0.074	0.040	0.026	0.000	0.157	

DUTIES15	-0.072	0.038	0.027	-0.149	0.003	
PRESS15	-0.045	0.038	0.117	-0.118	0.031	
KES15	0.396	0.040	0.000	0.313	0.473	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	



Between Level

KESCAT16 ON						
SINGLE	-0.419	0.333	0.116	-1.018	0.240	
SINSQU	-0.026	0.326	0.469	-0.668	0.630	
SINGLE WITH						
SINSQU	0.527	0.096	0.000	0.310	0.683	*
Means						
SINGLE	0.101	0.129	0.222	-0.145	0.353	
SINSQU	1.035	0.162	0.000	0.709	1.358	*
Thresholds						
KESCAT16\$1	-2.233	1.268	0.000	-5.923	-0.986	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.722	0.237	0.000	0.110	0.985	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.223	0.034	0.000	0.159	0.290

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.278	0.237	0.000	0.015	0.890

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	0	
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA		
	PRESS15	DUTIES15
	5	6

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA		
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>13</u>	<u>15</u>	<u>18</u>	<u>22</u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>33</u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	KESCAT16
	<u>42</u>

NU		
	KESCAT16	SINGLE
	<u>42</u>	<u>33</u>

0	0	0
---	---	---

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

---

0.000      

---

0.000      

---

0.000      

---

0.000      

---

0.000

NU  
PRESS15      DUTIES15  

---

0.000      

---

0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000

	DUTIES15
	<u>          </u>
	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>          </u>
-0.352

NU
KESCAT16
<u>          </u>
0.000

SINGLE
<u>          </u>
0.000

SINSQU
<u>          </u>
0.000

LAMBDA



	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.210	1.043

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.499	
SINSQU	0.000	0.000	0.585

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925515D-04	-0.649564D-04	0.111150D-02		
4	0.451959D-04	0.736636D-04	-0.136579D-03	0.544187D-03	
5	0.101054D-03	0.445892D-04	-0.215367D-03	0.177232D-03	0.108754D-02
6	-0.408497D-04	-0.473577D-04	0.976972D-04	-0.161991D-03	-0.253049D-03
7	-0.276580D-04	-0.140358D-04	-0.662784D-04	-0.105686D-04	0.243995D-04
8	0.629168D-04	-0.885491D-05	0.785705D-04	-0.178585D-04	-0.629468D-04
9	0.165622D-04	0.126977D-04	0.408456D-04	0.176570D-04	0.637928D-04
10	-0.885459D-05	0.298276D-04	0.326953D-04	0.919561D-05	0.422903D-04
11	0.359730D-04	0.105692D-04	-0.198094D-04	-0.113964D-04	0.126404D-04
12	0.585226D-07	0.156361D-04	-0.213885D-04	0.154874D-04	-0.937747D-04
13	0.611672D-04	0.212403D-04	-0.183428D-04	0.548030D-06	0.323035D-04
14	-0.108309D-05	0.118220D-04	-0.293367D-05	-0.151538D-04	-0.196796D-04
15	0.586080D-05	0.141473D-05	0.195683D-04	-0.166345D-04	-0.973838D-05
16	-0.436356D-04	-0.212689D-04	0.228261D-05	0.728248D-05	-0.173960D-04
17	0.581635D-06	0.109612D-04	-0.788296D-05	0.171546D-06	0.138610D-04
18	-0.383122D-04	-0.125882D-05	-0.341214D-04	0.776119D-05	0.209100D-04
19	0.998200D-05	0.174700D-04	0.153418D-04	-0.702870D-05	-0.129174D-04
20	0.517447D-05	0.215279D-05	0.661210D-06	0.934510D-05	0.688115D-05
21	0.832309D-05	-0.828405D-05	0.110181D-04	0.130179D-05	-0.288687D-04
22	0.169763D-04	0.430571D-05	-0.560291D-05	0.192151D-04	0.568042D-04
23	0.254809D-04	0.125213D-04	0.828729D-05	-0.153057D-04	0.219572D-04
24	0.452291D-05	0.211871D-05	0.163273D-04	0.962831D-05	0.159486D-04
25	-0.284601D-05	-0.389554D-05	-0.174194D-04	0.186760D-04	-0.512511D-05
26	-0.326734D-05	-0.116806D-04	0.198823D-05	0.236620D-04	0.304714D-04
27	0.343555D-04	-0.450168D-05	-0.246599D-04	0.183331D-04	0.476459D-04
28	-0.949727D-05	-0.209397D-04	-0.878772D-05	-0.345134D-04	-0.194202D-04
29	-0.212778D-05	0.179299D-05	-0.109442D-04	-0.407378D-05	0.198081D-04
30	-0.611052D-05	-0.126266D-04	-0.169277D-04	0.102726D-04	0.467923D-04
31	-0.881033D-05	0.161181D-05	0.306227D-04	-0.185014D-04	-0.475461D-05
32	-0.428925D-04	0.405206D-05	0.729470D-04	-0.344706D-04	-0.114469D-04
33	-0.109364D-05	0.623557D-05	-0.420406D-04	0.265497D-04	-0.687308D-05
34	-0.198067D-04	-0.321717D-04	0.347022D-04	0.140844D-03	0.292238D-04
35	0.226884D-04	-0.128551D-04	-0.649292D-04	0.291148D-04	0.881726D-05
36	-0.585125D-04	-0.231158D-04	0.670523D-04	0.438715D-04	0.334727D-04
37	0.141702D-04	0.253400D-04	-0.120036D-03	0.202949D-04	0.356939D-04
38	0.107721D-04	0.667412D-05	0.136237D-04	0.592225D-04	-0.672448D-05
39	-0.147205D-05	0.483062D-04	-0.243844D-03	-0.155121D-04	0.126086D-03
40	-0.374716D-04	-0.147087D-04	-0.121008D-03	-0.143040D-04	0.195460D-03
41	-0.879618D-04	-0.487442D-04	-0.531536D-04	-0.228339D-04	0.284311D-03
42	0.409941D-04	0.271686D-04	-0.850121D-04	0.632908D-04	0.102989D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881818D-03				
7	-0.606596D-05	0.258456D-02			
8	-0.134273D-04	-0.568569D-03	0.894983D-02		
9	0.460559D-05	0.843176D-04	0.451717D-03	0.151791D-02	
10	-0.316409D-05	-0.526805D-06	-0.204662D-03	0.154425D-03	0.350957D-02
11	-0.162593D-04	-0.276006D-03	-0.107395D-03	0.401715D-04	-0.288574D-03
12	0.193595D-04	-0.785372D-05	0.417838D-03	-0.182264D-03	0.322103D-03
13	-0.161057D-04	0.751886D-04	0.499208D-05	0.987931D-05	-0.217027D-04
14	0.166930D-04	0.259669D-04	-0.399435D-04	0.551850D-05	0.231258D-04
15	0.692595D-05	-0.831528D-05	-0.183402D-04	0.148463D-04	0.355648D-04
16	-0.201734D-04	0.419321D-05	0.512080D-05	0.113427D-04	0.368405D-05
17	-0.197646D-04	0.223257D-05	-0.265040D-04	-0.748201D-05	0.531715D-05
18	-0.428587D-04	0.572492D-04	-0.592294D-04	-0.203262D-04	0.335991D-04
19	0.116432D-04	-0.139518D-04	-0.683506D-05	-0.132079D-06	-0.269557D-04
20	0.329210D-05	-0.940763D-05	0.627755D-04	0.542448D-05	-0.115549D-04
21	0.472094D-05	0.396179D-05	-0.143374D-03	-0.297365D-04	0.116319D-04
22	-0.325103D-04	0.176618D-04	0.582666D-04	-0.148531D-05	-0.277978D-04
23	-0.408804D-05	-0.106651D-04	0.375700D-05	-0.153041D-04	-0.316513D-04
24	-0.330217D-05	0.111679D-04	-0.281302D-04	0.214668D-04	0.137675D-04
25	-0.215222D-04	0.289791D-04	-0.136275D-03	-0.177688D-04	-0.502013D-04
26	-0.221669D-05	0.286250D-04	0.863860D-04	0.431064D-04	0.233483D-05
27	-0.132352D-04	0.117059D-03	0.458799D-04	0.601059D-04	0.798666D-04
28	0.255223D-04	-0.180233D-04	-0.788804D-04	0.309248D-04	0.511727D-04
29	-0.446514D-05	0.191089D-04	-0.471612D-04	0.244444D-05	-0.168323D-04
30	-0.525537D-05	0.503902D-05	0.120038D-03	0.488546D-06	0.827720D-04
31	0.259708D-05	-0.147800D-04	-0.112597D-03	-0.213079D-04	0.112336D-04
32	-0.581402D-05	0.218335D-04	-0.131197D-03	-0.382718D-04	0.508651D-05
33	0.387053D-04	0.562629D-04	0.130546D-03	0.119077D-04	0.201772D-04
34	-0.109009D-03	0.555946D-04	-0.326351D-03	-0.310285D-03	-0.364017D-04
35	-0.118159D-03	0.159872D-03	-0.189071D-03	-0.235095D-03	-0.651675D-04
36	-0.418151D-04	0.187731D-03	-0.292404D-04	0.242275D-04	-0.236923D-03
37	0.204713D-04	-0.233058D-03	-0.112794D-03	-0.315976D-03	0.719842D-04
38	0.271094D-04	0.889722D-04	0.259144D-03	0.145116D-03	0.353970D-04
39	-0.233792D-03	0.507766D-04	0.477511D-03	-0.478682D-04	-0.323537D-03
40	-0.211007D-03	0.558992D-04	0.341654D-03	-0.834999D-04	-0.230653D-03
41	-0.140677D-03	-0.326485D-04	0.253690D-04	-0.738413D-04	-0.102473D-03
42	0.789885D-05	-0.378226D-03	-0.102212D-02	-0.211020D-03	-0.174369D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160626D-02				
12	0.308269D-03	0.185598D-02			
13	-0.400630D-05	-0.205879D-04	0.887204D-03		
14	0.109136D-04	0.282359D-04	0.144167D-03	0.209516D-03	
15	-0.413477D-05	0.216003D-05	0.245872D-04	0.632890D-04	0.178540D-03
16	0.789970D-05	-0.386127D-04	-0.152802D-03	-0.702306D-04	-0.312420D-04
17	0.421460D-04	-0.181285D-04	-0.515481D-04	-0.385900D-04	-0.503927D-04
18	-0.498906D-04	0.984040D-04	0.342232D-04	0.115924D-04	-0.743888D-05
19	-0.195232D-04	0.100904D-04	0.671946D-04	0.296094D-04	0.604105D-05
20	-0.310702D-04	-0.653622D-05	0.115437D-04	0.103491D-04	0.370384D-04
21	0.306136D-04	0.116034D-04	-0.192757D-04	-0.531794D-05	-0.922149D-05
22	0.145455D-05	0.655366D-05	0.109743D-04	-0.118951D-04	0.890551D-05
23	0.102947D-04	0.414570D-04	0.167277D-03	0.404965D-04	0.601104D-05
24	-0.243769D-04	0.105627D-04	0.305999D-04	0.384764D-04	0.344846D-04
25	0.359143D-04	-0.329508D-04	-0.227986D-04	-0.347927D-04	-0.407315D-05
26	-0.129657D-05	0.152372D-04	0.648706D-05	0.160350D-05	0.118842D-04
27	0.420085D-04	0.769936D-04	0.386161D-04	-0.102895D-04	-0.152220D-04
28	-0.104924D-04	-0.202440D-04	-0.849102D-04	-0.497670D-04	-0.142783D-04
29	0.350407D-04	0.233712D-04	-0.125938D-04	-0.204235D-04	-0.363782D-04
30	-0.118845D-06	0.428995D-06	0.759422D-04	0.268232D-04	0.103234D-04
31	0.114516D-05	0.153520D-05	-0.109817D-04	-0.693472D-05	-0.112065D-04
32	-0.936476D-05	0.232479D-04	0.793374D-05	-0.177125D-04	-0.656647D-06
33	-0.118592D-05	0.434952D-05	0.344611D-04	0.560085D-05	0.131991D-05
34	-0.164888D-04	0.482241D-05	0.502112D-05	0.136555D-04	0.453221D-04
35	-0.570802D-04	0.176417D-03	-0.217667D-04	-0.433169D-04	-0.459148D-04
36	0.203858D-05	-0.317081D-04	0.314139D-04	-0.143381D-04	0.588765D-05
37	0.398471D-04	0.107305D-03	-0.112878D-03	-0.187809D-04	-0.236657D-05
38	0.115361D-03	0.104224D-03	0.816035D-04	0.483813D-04	0.934197D-05
39	-0.239760D-03	-0.122694D-03	0.195370D-03	0.144884D-03	0.992286D-04
40	-0.265845D-03	-0.976123D-04	0.848248D-04	0.241755D-04	0.146494D-04
41	-0.166365D-03	0.114758D-04	-0.952229D-04	-0.448067D-04	0.199565D-04
42	-0.105403D-04	0.163751D-03	-0.558665D-04	-0.351829D-04	-0.238714D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769017D-03				
17	0.156214D-03	0.354732D-03			
18	-0.227047D-03	-0.189526D-03	0.243868D-02		
19	-0.865738D-04	-0.203843D-04	0.315760D-04	0.382759D-03	

20	-0.222571D-04	-0.469615D-04	-0.744538D-05	0.626867D-04	0.180151D-03
21	0.291915D-04	0.785678D-04	-0.291565D-03	-0.493750D-04	-0.695996D-04
22	-0.111355D-04	-0.190869D-04	0.505581D-04	0.403943D-04	0.785252D-04
23	-0.105875D-03	-0.310533D-04	0.594956D-04	0.140420D-03	0.267988D-04
24	-0.243731D-04	-0.662512D-04	0.113932D-04	0.237725D-04	0.630517D-04
25	0.126740D-03	0.658704D-04	-0.445739D-03	-0.677827D-06	-0.137343D-04
26	-0.290291D-05	-0.194930D-04	0.621905D-04	0.586014D-04	0.497198D-04
27	-0.685587D-05	-0.268346D-04	0.178503D-03	0.227430D-04	0.208895D-04
28	0.981696D-04	0.245350D-04	-0.700922D-04	-0.123488D-03	-0.325864D-04
29	0.251561D-04	0.505812D-04	0.577136D-05	-0.167929D-04	-0.546318D-04
30	-0.613180D-04	-0.711079D-04	0.278661D-03	0.387232D-04	0.125672D-04
31	0.719205D-05	0.232362D-04	-0.157795D-05	-0.352381D-04	-0.495711D-04
32	0.707749D-05	0.326633D-05	-0.324302D-04	-0.122323D-04	-0.578013D-05
33	-0.296206D-05	-0.142297D-04	-0.379455D-04	-0.508018D-07	0.177311D-04
34	0.870265D-04	-0.124356D-03	0.278092D-03	0.819746D-04	0.313247D-05
35	0.101790D-03	0.327719D-04	0.167015D-03	0.694950D-04	-0.614018D-04
36	0.647720D-04	0.458904D-04	-0.273942D-04	0.281912D-04	0.280442D-04
37	-0.402176D-04	-0.281642D-04	-0.828044D-05	-0.272695D-05	0.906374D-05
38	-0.379334D-04	-0.754891D-05	0.947765D-04	0.240421D-05	0.197617D-05
39	-0.943794D-04	-0.135780D-03	-0.106843D-03	-0.357694D-04	-0.714535D-04
40	0.432072D-05	-0.159443D-04	-0.244937D-03	-0.315064D-04	-0.110010D-04
41	0.526681D-04	-0.125270D-04	-0.341678D-03	-0.113651D-03	-0.484172D-04
42	-0.407835D-04	-0.980690D-05	-0.720587D-04	0.491008D-04	0.206912D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679757D-03				
22	-0.137474D-03	0.652637D-03			
23	-0.300144D-04	0.352477D-04	0.732787D-03		
24	-0.239610D-04	0.149319D-04	0.119151D-03	0.338057D-03	
25	0.221900D-03	-0.480916D-04	-0.103091D-03	-0.980461D-04	0.129242D-02
26	-0.139752D-03	0.196809D-03	0.696428D-04	0.830385D-04	-0.137409D-03
27	-0.645244D-04	0.874899D-04	0.222561D-03	0.134546D-03	-0.395028D-03
28	0.286549D-04	-0.260075D-04	-0.206206D-03	-0.374934D-04	0.515177D-04
29	0.957505D-05	-0.238932D-04	-0.251856D-04	-0.784318D-04	0.282643D-04
30	-0.168764D-03	0.559685D-04	0.104520D-03	0.317234D-04	-0.300946D-03
31	0.801371D-04	-0.186285D-03	-0.155957D-04	-0.182897D-04	0.402010D-04
32	0.216983D-04	-0.449712D-04	-0.836087D-04	-0.752688D-04	0.166213D-03
33	-0.190064D-04	0.252739D-04	0.296625D-04	0.414079D-04	-0.419200D-04
34	-0.193565D-03	0.786230D-04	-0.497583D-04	0.495748D-04	-0.129900D-03
35	-0.892095D-04	0.132920D-03	-0.664645D-05	0.147969D-04	-0.195598D-03
36	-0.365522D-04	0.696872D-04	-0.691538D-04	0.181435D-04	-0.219238D-05

37	0.466173D-04	-0.566339D-04	-0.404862D-04	-0.561114D-04	0.340359D-04
38	0.165753D-04	0.135780D-04	0.360040D-04	0.159607D-04	0.161097D-04
39	0.131713D-03	-0.157785D-03	-0.593130D-04	-0.131036D-04	0.253832D-03
40	0.534442D-04	-0.124151D-03	-0.950594D-04	0.165285D-05	0.103273D-03
41	0.390988D-04	-0.545527D-05	-0.560880D-04	0.817279D-04	-0.676888D-04
42	0.748598D-04	-0.720185D-04	0.149589D-04	-0.336046D-04	0.808645D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650037D-03				
27	0.437883D-03	0.241811D-02			
28	-0.322542D-04	-0.687064D-04	0.686018D-03		
29	-0.368450D-04	-0.517705D-04	0.112373D-03	0.287872D-03	
30	0.842870D-04	0.150248D-03	-0.120987D-03	-0.785433D-04	0.112441D-02
31	-0.185738D-03	-0.123286D-03	0.743819D-04	0.730067D-04	-0.167951D-03
32	-0.234933D-03	-0.575810D-03	0.152295D-03	0.920732D-04	-0.231396D-03
33	0.832736D-04	0.153533D-03	-0.160443D-03	-0.131445D-03	0.271646D-03
34	0.507561D-04	-0.554752D-04	0.168952D-04	-0.211847D-05	0.405040D-04
35	0.125027D-03	-0.174823D-04	-0.220760D-04	0.176408D-04	0.899906D-04
36	0.587484D-04	-0.195823D-04	-0.233257D-04	-0.415821D-04	-0.675181D-04
37	-0.388296D-04	-0.845171D-04	0.106646D-04	0.477422D-04	0.455401D-05
38	-0.369009D-04	-0.200104D-04	-0.505047D-04	-0.924156D-05	0.707944D-04
39	0.729316D-04	-0.187829D-03	0.137710D-03	0.200192D-04	-0.171021D-03
40	0.616511D-04	0.567227D-04	0.141327D-03	0.774532D-04	-0.168388D-03
41	0.159495D-03	0.277919D-03	0.726736D-04	0.658294D-04	-0.112419D-03
42	-0.745015D-04	-0.909389D-04	-0.207297D-04	0.382638D-04	0.313283D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597735D-03				
32	0.241965D-03	0.115792D-02			
33	-0.349949D-03	-0.537317D-03	0.195425D-02		
34	0.431666D-04	-0.159286D-03	0.551765D-04	0.168967D-01	
35	-0.303646D-04	-0.153286D-03	0.681920D-04	0.796265D-02	0.161233D-01
36	-0.725650D-04	-0.386871D-04	-0.830618D-04	0.266780D-03	0.241052D-03
37	0.511686D-04	0.743583D-04	0.653660D-04	-0.232578D-03	-0.713819D-04
38	-0.611621D-05	-0.216261D-04	0.369630D-04	-0.151592D-04	0.357175D-04
39	0.543155D-04	0.112027D-03	0.134158D-03	0.335661D-03	-0.965865D-04
40	0.959704D-04	0.934689D-04	-0.672898D-04	0.261363D-03	0.212961D-03
41	0.212656D-03	-0.687156D-04	-0.202918D-03	-0.591665D-03	-0.193433D-04

42 0.415183D-04 0.105023D-03 0.732045D-05 -0.104042D-03 -0.129360D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.526135D-02				
37	-0.319568D-02	0.527503D-02			
38	-0.129513D-03	-0.429230D-03	0.155709D-02		
39	0.429476D-04	0.560131D-03	-0.360470D-03	0.334215D-01	
40	-0.188449D-04	0.341786D-03	-0.262651D-03	0.170089D-01	0.201719D-01
41	-0.412715D-04	0.394073D-03	-0.249289D-03	0.971089D-02	0.159019D-01
42	-0.240255D-02	0.466961D-02	-0.414246D-03	0.657660D-03	0.164199D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.293681D-01	
42	0.239563D-03	0.756296D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.022	-0.017	-0.039	-0.009	0.015
8	0.027	-0.006	0.025	-0.008	-0.020
9	0.017	0.020	0.031	0.019	0.050
10	-0.006	0.030	0.017	0.007	0.022
11	0.036	0.016	-0.015	-0.012	0.010
12	0.000	0.022	-0.015	0.015	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020



20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005
34	-0.006	-0.015	0.008	0.046	0.007
35	0.007	-0.006	-0.015	0.010	0.002
36	-0.033	-0.019	0.028	0.026	0.014
37	0.008	0.021	-0.050	0.012	0.015
38	0.011	0.010	0.010	0.064	-0.005
39	0.000	0.016	-0.040	-0.004	0.021
40	-0.011	-0.006	-0.026	-0.004	0.042
41	-0.021	-0.017	-0.009	-0.006	0.050
42	0.019	0.019	-0.029	0.031	0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.005	-0.118	1.000		
9	0.004	0.043	0.123	1.000	
10	-0.002	0.000	-0.037	0.067	1.000
11	-0.014	-0.135	-0.028	0.026	-0.122
12	0.015	-0.004	0.103	-0.109	0.126
13	-0.018	0.050	0.002	0.009	-0.012
14	0.039	0.035	-0.029	0.010	0.027
15	0.017	-0.012	-0.015	0.029	0.045
16	-0.024	0.003	0.002	0.010	0.002
17	-0.035	0.002	-0.015	-0.010	0.005
18	-0.029	0.023	-0.013	-0.011	0.011
19	0.020	-0.014	-0.004	0.000	-0.023
20	0.008	-0.014	0.049	0.010	-0.015
21	0.006	0.003	-0.058	-0.029	0.008

22	-0.043	0.014	0.024	-0.001	-0.018
23	-0.005	-0.008	0.001	-0.015	-0.020
24	-0.006	0.012	-0.016	0.030	0.013
25	-0.020	0.016	-0.040	-0.013	-0.024
26	-0.003	0.022	0.036	0.043	0.002
27	-0.009	0.047	0.010	0.031	0.027
28	0.033	-0.014	-0.032	0.030	0.033
29	-0.009	0.022	-0.029	0.004	-0.017
30	-0.005	0.003	0.038	0.000	0.042
31	0.004	-0.012	-0.049	-0.022	0.008
32	-0.006	0.013	-0.041	-0.029	0.003
33	0.029	0.025	0.031	0.007	0.008
34	-0.028	0.008	-0.027	-0.061	-0.005
35	-0.031	0.025	-0.016	-0.048	-0.009
36	-0.019	0.051	-0.004	0.009	-0.055
37	0.009	-0.063	-0.016	-0.112	0.017
38	0.023	0.044	0.069	0.094	0.015
39	-0.043	0.005	0.028	-0.007	-0.030
40	-0.050	0.008	0.025	-0.015	-0.027
41	-0.028	-0.004	0.002	-0.011	-0.010
42	0.003	-0.086	-0.124	-0.062	-0.034

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.179	1.000			
13	-0.003	-0.016	1.000		
14	0.019	0.045	0.334	1.000	
15	-0.008	0.004	0.062	0.327	1.000
16	0.007	-0.032	-0.185	-0.175	-0.084
17	0.056	-0.022	-0.092	-0.142	-0.200
18	-0.025	0.046	0.023	0.016	-0.011
19	-0.025	0.012	0.115	0.105	0.023
20	-0.058	-0.011	0.029	0.053	0.207
21	0.029	0.010	-0.025	-0.014	-0.026
22	0.001	0.006	0.014	-0.032	0.026
23	0.009	0.036	0.207	0.103	0.017
24	-0.033	0.013	0.056	0.145	0.140
25	0.025	-0.021	-0.021	-0.067	-0.008
26	-0.001	0.014	0.009	0.004	0.035
27	0.021	0.036	0.026	-0.014	-0.023
28	-0.010	-0.018	-0.109	-0.131	-0.041

29	0.052	0.032	-0.025	-0.083	-0.160
30	0.000	0.000	0.076	0.055	0.023
31	0.001	0.001	-0.015	-0.020	-0.034
32	-0.007	0.016	0.008	-0.036	-0.001
33	-0.001	0.002	0.026	0.009	0.002
34	-0.003	0.001	0.001	0.007	0.026
35	-0.011	0.032	-0.006	-0.024	-0.027
36	0.001	-0.010	0.015	-0.014	0.006
37	0.014	0.034	-0.052	-0.018	-0.002
38	0.073	0.061	0.069	0.085	0.018
39	-0.033	-0.016	0.036	0.055	0.041
40	-0.047	-0.016	0.020	0.012	0.008
41	-0.024	0.002	-0.019	-0.018	0.009
42	-0.003	0.044	-0.022	-0.028	-0.021

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.008	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.043	0.032	0.002
35	0.029	0.014	0.027	0.028	-0.036
36	0.032	0.034	-0.008	0.020	0.029
37	-0.020	-0.021	-0.002	-0.002	0.009
38	-0.035	-0.010	0.049	0.003	0.004
39	-0.019	-0.039	-0.012	-0.010	-0.029
40	0.001	-0.006	-0.035	-0.011	-0.006

41	0.011	-0.004	-0.040	-0.034	-0.021
42	-0.017	-0.006	-0.017	0.029	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.057	0.024	-0.014	0.021	-0.028
35	-0.027	0.041	-0.002	0.006	-0.043
36	-0.019	0.038	-0.035	0.014	-0.001
37	0.025	-0.031	-0.021	-0.042	0.013
38	0.016	0.013	0.034	0.022	0.011
39	0.028	-0.034	-0.012	-0.004	0.039
40	0.014	-0.034	-0.025	0.001	0.020
41	0.009	-0.001	-0.012	0.026	-0.011
42	0.033	-0.032	0.006	-0.021	0.026

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.015	-0.009	0.005	-0.001	0.009
35	0.039	-0.003	-0.007	0.008	0.021

36	0.032	-0.005	-0.012	-0.034	-0.028
37	-0.021	-0.024	0.006	0.039	0.002
38	-0.037	-0.010	-0.049	-0.014	0.054
39	0.016	-0.021	0.029	0.006	-0.028
40	0.017	0.008	0.038	0.032	-0.035
41	0.037	0.033	0.016	0.023	-0.020
42	-0.034	-0.021	-0.009	0.026	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.014	-0.036	0.010	1.000	
35	-0.010	-0.035	0.012	0.482	1.000
36	-0.041	-0.016	-0.026	0.028	0.026
37	0.029	0.030	0.020	-0.025	-0.008
38	-0.006	-0.016	0.021	-0.003	0.007
39	0.012	0.018	0.017	0.014	-0.004
40	0.028	0.019	-0.011	0.014	0.012
41	0.051	-0.012	-0.027	-0.027	-0.001
42	0.020	0.035	0.002	-0.009	-0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.607	1.000			
38	-0.045	-0.150	1.000		
39	0.003	0.042	-0.050	1.000	
40	-0.002	0.033	-0.047	0.655	1.000
41	-0.003	0.032	-0.037	0.310	0.653
42	-0.381	0.739	-0.121	0.041	0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.016	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.016	38
300	1.005	13
400	1.003	36
500	1.011	38
600	1.008	38
700	1.002	6
800	1.002	42
900	1.002	42
1000	1.000	20

Effects of a single practice, smoking cessation

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270



	58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
SINSQU		1.606	3.031	0.022	1.72%	0.073	0.176	0.518
	58.000	9.185	10.759	17.306	1.72%	0.518	1.796	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.709 28.884

Posterior Predictive P-Value 0.516

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.161	0.051	0.001	0.061	0.257	*
CHOICE15	0.025	0.039	0.265	-0.054	0.104	
BULLY15	0.108	0.059	0.025	0.000	0.231	
DUTIES15	-0.077	0.043	0.030	-0.164	0.006	
PRESS15	-0.045	0.040	0.129	-0.121	0.036	
KES15	0.804	0.095	0.000	0.613	0.989	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.021	0.090	0.416	-0.205	0.160	
SINSQU	-0.036	0.042	0.187	-0.121	0.041	
SINGLE WITH						
SINSQU	3.220	0.653	0.000	2.175	4.725	*
Means						
SINGLE	0.322	0.161	0.017	0.017	0.640	*
SINSQU	1.611	0.395	0.000	0.826	2.398	*
Thresholds						
KESCAT16\$1	-0.518	0.070	0.000	-0.665	-0.390	*
Variances						
SINGLE	1.518	0.283	0.000	1.069	2.171	*
SINSQU	9.193	1.727	0.000	6.535	13.239	*
Residual Variances						
KESCAT16	0.036	0.039	0.000	0.002	0.146	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.120	0.037	0.001	0.045	0.190	*
CHOICE15	0.024	0.037	0.265	-0.053	0.098	
BULLY15	0.074	0.040	0.025	0.000	0.157	

DUTIES15	-0.069	0.038	0.030	-0.145	0.006	
PRESS15	-0.043	0.038	0.129	-0.115	0.033	
KES15	0.396	0.040	0.000	0.311	0.472	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.128	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	-0.105	0.457	0.416	-1.027	0.715	
SINSQU	-0.472	0.483	0.187	-1.270	0.596	
SINGLE WITH						
SINSQU	0.867	0.033	0.000	0.789	0.917	*
Means						
SINGLE	0.266	0.131	0.017	0.014	0.522	*
SINSQU	0.531	0.138	0.000	0.265	0.803	*
Thresholds						
KESCAT16\$1	-2.099	0.935	0.000	-4.824	-1.130	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.624	0.239	0.000	0.082	0.969	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.223	0.034	0.000	0.158	0.289

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.376	0.239	0.000	0.031	0.918

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16		_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15		0	0	0	0	0
KES15		0	0	0	0	0
CHOICE15		0	0	0	0	0
BULLY15		0	0	0	0	0
PRESS15		0	0	0	0	0
DUTIES15		0	0	0	0	0

	LAMBDA	PRESS15	DUTIES15
KESCAT16		_____ 0	_____ 0
PHY15		0	0
KES15		0	0
CHOICE15		0	0
BULLY15		0	0
PRESS15		0	0
DUTIES15		0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>



0	0	0
---	---	---

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

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0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

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0.000      

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0.000      

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0.000      

---

0.000      

---

0.000

NU  
PRESS15      DUTIES15  

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0.000      

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0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u></u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU	
KESCAT16	
	<u></u>
	-0.352

NU			
KESCAT16	SINGLE	SINSQU	
	<u></u>	<u></u>	<u></u>
	0.000	0.000	0.000

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.237	1.131

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.537	
SINSQU	0.000	0.000	1.995

# PRIORS FOR ALL PARAMETERS

	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925371D-04	-0.649612D-04	0.111152D-02		
4	0.451963D-04	0.736646D-04	-0.136575D-03	0.544173D-03	
5	0.101043D-03	0.445892D-04	-0.215382D-03	0.177236D-03	0.108753D-02
6	-0.408626D-04	-0.473592D-04	0.976648D-04	-0.161988D-03	-0.253046D-03
7	-0.261872D-04	-0.120148D-04	-0.675074D-04	-0.125824D-04	0.283562D-04
8	0.701989D-04	-0.116062D-04	0.772142D-04	-0.130219D-04	-0.644565D-04
9	0.153824D-04	0.129100D-04	0.389540D-04	0.203348D-04	0.630216D-04
10	-0.104759D-04	0.307865D-04	0.332763D-04	0.112663D-04	0.411710D-04
11	0.347631D-04	0.106096D-04	-0.191594D-04	-0.136094D-04	0.126003D-04
12	0.116812D-05	0.132315D-04	-0.174887D-04	0.118120D-04	-0.934999D-04
13	0.611679D-04	0.212398D-04	-0.183653D-04	0.545355D-06	0.323150D-04
14	-0.108242D-05	0.118219D-04	-0.293094D-05	-0.151550D-04	-0.196736D-04
15	0.586096D-05	0.141459D-05	0.195758D-04	-0.166322D-04	-0.973853D-05
16	-0.436410D-04	-0.212658D-04	0.228819D-05	0.728779D-05	-0.174004D-04
17	0.581340D-06	0.109633D-04	-0.787547D-05	0.181500D-06	0.138455D-04
18	-0.383160D-04	-0.124869D-05	-0.340799D-04	0.774984D-05	0.209248D-04
19	0.998504D-05	0.174693D-04	0.153204D-04	-0.703237D-05	-0.129058D-04
20	0.517803D-05	0.215547D-05	0.645915D-06	0.934285D-05	0.688820D-05
21	0.832005D-05	-0.829137D-05	0.110356D-04	0.131235D-05	-0.288684D-04
22	0.169890D-04	0.430608D-05	-0.562349D-05	0.191927D-04	0.568019D-04
23	0.254910D-04	0.125219D-04	0.827348D-05	-0.153134D-04	0.219738D-04
24	0.452634D-05	0.211841D-05	0.163321D-04	0.962721D-05	0.159543D-04
25	-0.283849D-05	-0.389271D-05	-0.173796D-04	0.186653D-04	-0.513861D-05
26	-0.326214D-05	-0.116768D-04	0.199292D-05	0.236395D-04	0.304520D-04
27	0.343424D-04	-0.449058D-05	-0.246255D-04	0.183389D-04	0.476104D-04
28	-0.949205D-05	-0.209394D-04	-0.878923D-05	-0.345234D-04	-0.194291D-04
29	-0.212793D-05	0.178904D-05	-0.109395D-04	-0.408403D-05	0.198006D-04
30	-0.611166D-05	-0.126058D-04	-0.169930D-04	0.102556D-04	0.468089D-04
31	-0.882189D-05	0.162051D-05	0.306379D-04	-0.184779D-04	-0.475516D-05
32	-0.429131D-04	0.404564D-05	0.729609D-04	-0.344599D-04	-0.114524D-04
33	-0.108537D-05	0.619878D-05	-0.420037D-04	0.264892D-04	-0.692857D-05
34	-0.298393D-04	-0.444557D-04	0.523171D-04	0.170321D-03	0.310378D-04
35	-0.136810D-04	-0.785025D-04	-0.557110D-04	0.309131D-03	0.675141D-04
36	-0.273930D-04	-0.541347D-04	0.596560D-04	0.791529D-04	0.251254D-04
37	0.145634D-04	0.321490D-04	-0.245633D-04	-0.267415D-04	0.153782D-04
38	0.142867D-04	0.682776D-05	0.212175D-04	0.573607D-04	-0.980949D-05
39	-0.894518D-04	-0.360981D-05	-0.299677D-03	-0.471378D-04	0.431706D-03
40	-0.281159D-03	-0.963397D-04	-0.404133D-03	-0.851550D-04	0.114285D-02
41	-0.823774D-03	-0.347881D-03	-0.494779D-03	-0.153661D-03	0.295179D-02
42	0.496582D-04	0.319303D-04	0.397691D-05	0.230726D-04	0.970872D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	0.881812D-03				
7	-0.617075D-05	0.258833D-02			
8	-0.151281D-04	-0.571252D-03	0.906446D-02		
9	0.650428D-05	0.887528D-04	0.470712D-03	0.151578D-02	
10	-0.300975D-05	0.315331D-05	-0.194539D-03	0.153977D-03	0.349494D-02
11	-0.159798D-04	-0.272828D-03	-0.120894D-03	0.372060D-04	-0.297979D-03
12	0.186099D-04	-0.185453D-04	0.423932D-03	-0.185158D-03	0.322983D-03
13	-0.160965D-04	0.737720D-04	0.150788D-04	0.876034D-05	-0.225491D-04
14	0.166942D-04	0.257412D-04	-0.382932D-04	0.462642D-05	0.232692D-04
15	0.692409D-05	-0.934513D-05	-0.136218D-04	0.145413D-04	0.361263D-04
16	-0.201673D-04	0.210242D-05	0.836666D-05	0.103995D-04	0.338113D-05
17	-0.197597D-04	0.192469D-05	-0.276930D-04	-0.762714D-05	0.578984D-05
18	-0.428985D-04	0.538688D-04	-0.616855D-04	-0.218218D-04	0.334174D-04
19	0.116517D-04	-0.153678D-04	-0.668640D-05	0.162784D-05	-0.262204D-04
20	0.329732D-05	-0.965828D-05	0.642086D-04	0.724305D-05	-0.112016D-04
21	0.470980D-05	0.386425D-05	-0.147090D-03	-0.307801D-04	0.108686D-04
22	-0.325052D-04	0.161259D-04	0.622067D-04	-0.173348D-05	-0.248015D-04
23	-0.406862D-05	-0.121218D-04	0.735841D-05	-0.173436D-04	-0.294529D-04
24	-0.330924D-05	0.105101D-04	-0.239284D-04	0.202639D-04	0.144626D-04
25	-0.215201D-04	0.278652D-04	-0.138205D-03	-0.207672D-04	-0.501918D-04
26	-0.220969D-05	0.251841D-04	0.101352D-03	0.423362D-04	0.303029D-05
27	-0.132692D-04	0.112290D-03	0.666128D-04	0.532695D-04	0.774831D-04
28	0.255178D-04	-0.185270D-04	-0.804674D-04	0.305418D-04	0.489846D-04
29	-0.447180D-05	0.197057D-04	-0.486430D-04	0.404391D-05	-0.196558D-04
30	-0.523703D-05	0.457258D-05	0.117350D-03	0.430249D-05	0.844226D-04
31	0.258638D-05	-0.136303D-04	-0.116211D-03	-0.222697D-04	0.100235D-04
32	-0.582027D-05	0.255937D-04	-0.137360D-03	-0.361108D-04	0.335700D-05
33	0.387700D-04	0.610119D-04	0.110810D-03	0.152091D-04	0.206251D-04
34	-0.136704D-03	0.446302D-04	-0.368269D-03	-0.406558D-03	-0.381589D-04
35	-0.395361D-03	0.371821D-03	-0.957350D-03	-0.981906D-03	-0.218251D-03
36	-0.643333D-05	-0.241823D-04	0.577701D-03	-0.288445D-04	-0.813128D-04
37	-0.604657D-05	0.143379D-04	-0.242825D-03	-0.143222D-04	0.132443D-04
38	0.376378D-04	0.712577D-04	0.303217D-03	0.176167D-03	0.431313D-04
39	-0.438430D-03	0.587515D-04	0.501625D-03	-0.215448D-03	-0.503165D-03
40	-0.873487D-03	0.589953D-05	0.687247D-03	-0.508486D-03	-0.879820D-03
41	-0.157947D-02	-0.573361D-03	0.356962D-03	-0.105685D-02	-0.133375D-02
42	-0.283576D-04	-0.193227D-03	-0.112090D-02	0.329745D-04	-0.231235D-03



ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160694D-02				
12	0.303722D-03	0.184983D-02			
13	-0.409823D-05	-0.209910D-04	0.887205D-03		
14	0.108605D-04	0.276180D-04	0.144167D-03	0.209515D-03	
15	-0.407374D-05	0.386361D-05	0.245871D-04	0.632886D-04	0.178540D-03
16	0.671974D-05	-0.378469D-04	-0.152785D-03	-0.702393D-04	-0.312450D-04
17	0.414351D-04	-0.187992D-04	-0.515446D-04	-0.385915D-04	-0.503941D-04
18	-0.505398D-04	0.958007D-04	0.342374D-04	0.115967D-04	-0.744644D-05
19	-0.197029D-04	0.740953D-05	0.671958D-04	0.296124D-04	0.604324D-05
20	-0.316962D-04	-0.751711D-05	0.115391D-04	0.103524D-04	0.370396D-04
21	0.304031D-04	0.121771D-04	-0.192569D-04	-0.531803D-05	-0.922399D-05
22	0.213049D-05	0.607779D-05	0.109765D-04	-0.118956D-04	0.891307D-05
23	0.106455D-04	0.413673D-04	0.167265D-03	0.405002D-04	0.601222D-05
24	-0.239960D-04	0.122996D-04	0.305959D-04	0.384754D-04	0.344857D-04
25	0.375795D-04	-0.304525D-04	-0.228220D-04	-0.347934D-04	-0.406878D-05
26	-0.298295D-05	0.173565D-04	0.649929D-05	0.160856D-05	0.118941D-04
27	0.414326D-04	0.872949D-04	0.385967D-04	-0.102887D-04	-0.152250D-04
28	-0.949363D-05	-0.184084D-04	-0.849218D-04	-0.497626D-04	-0.142740D-04
29	0.346003D-04	0.217730D-04	-0.125981D-04	-0.204270D-04	-0.363741D-04
30	-0.166512D-05	-0.531422D-05	0.759146D-04	0.268208D-04	0.103182D-04
31	0.202393D-05	0.194803D-05	-0.109907D-04	-0.693735D-05	-0.112057D-04
32	-0.105886D-04	0.207441D-04	0.793866D-05	-0.177071D-04	-0.662735D-06
33	-0.117798D-05	-0.114053D-05	0.344721D-04	0.561347D-05	0.131934D-05
34	-0.631687D-05	0.248680D-04	0.209424D-04	0.221073D-04	0.559479D-04
35	-0.114676D-03	0.351348D-03	0.125489D-04	-0.450907D-04	-0.103503D-04
36	-0.461439D-04	0.223369D-03	0.724878D-04	0.212760D-04	0.191452D-04
37	-0.542483D-05	-0.113621D-03	-0.515175D-04	-0.207732D-04	-0.129508D-04
38	0.826545D-04	0.358265D-04	0.854191D-04	0.447955D-04	0.128155D-04
39	-0.486876D-03	-0.120441D-03	0.160485D-03	0.811967D-04	0.857293D-04
40	-0.944748D-03	-0.128068D-03	0.405848D-04	-0.393488D-04	0.974490D-04
41	-0.148602D-02	0.293801D-03	-0.809074D-03	-0.437592D-03	0.224827D-03
42	-0.659598D-04	-0.370955D-04	-0.722476D-05	-0.423170D-04	-0.352934D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769033D-03				
17	0.156226D-03	0.354742D-03			
18	-0.227097D-03	-0.189534D-03	0.243865D-02		
19	-0.865726D-04	-0.203875D-04	0.315727D-04	0.382759D-03	

20	-0.222528D-04	-0.469634D-04	-0.746031D-05	0.626854D-04	0.180151D-03
21	0.291785D-04	0.785646D-04	-0.291539D-03	-0.493636D-04	-0.695953D-04
22	-0.111432D-04	-0.190988D-04	0.505524D-04	0.403994D-04	0.785335D-04
23	-0.105878D-03	-0.310576D-04	0.595196D-04	0.140431D-03	0.268002D-04
24	-0.243796D-04	-0.662567D-04	0.113999D-04	0.237809D-04	0.630552D-04
25	0.126713D-03	0.658448D-04	-0.445642D-03	-0.691207D-06	-0.137441D-04
26	-0.288984D-05	-0.194833D-04	0.621621D-04	0.585995D-04	0.497179D-04
27	-0.683566D-05	-0.268263D-04	0.178425D-03	0.227809D-04	0.209007D-04
28	0.981822D-04	0.245440D-04	-0.701102D-04	-0.123500D-03	-0.325939D-04
29	0.251549D-04	0.505832D-04	0.576027D-05	-0.168000D-04	-0.546313D-04
30	-0.613170D-04	-0.711253D-04	0.278728D-03	0.387436D-04	0.125712D-04
31	0.721195D-05	0.232606D-04	-0.154423D-05	-0.352443D-04	-0.495813D-04
32	0.707593D-05	0.327202D-05	-0.323778D-04	-0.122348D-04	-0.577286D-05
33	-0.297353D-05	-0.142590D-04	-0.379552D-04	-0.281633D-07	0.177491D-04
34	0.106946D-03	-0.154025D-03	0.355763D-03	0.104873D-03	0.177891D-05
35	0.349314D-03	-0.134998D-03	0.772934D-03	0.280450D-03	-0.116646D-03
36	0.971183D-04	0.744109D-04	0.710450D-05	0.317585D-04	0.215778D-04
37	-0.378841D-04	-0.198488D-04	-0.254601D-04	-0.154788D-04	-0.341800D-05
38	-0.418774D-04	-0.871508D-05	0.815408D-04	0.349354D-05	0.409349D-05
39	-0.153518D-05	-0.965061D-04	-0.461308D-03	-0.119298D-03	-0.831181D-04
40	0.164078D-03	-0.816722D-04	-0.122154D-02	-0.354141D-03	-0.149390D-03
41	0.578585D-03	-0.197017D-03	-0.310044D-02	-0.118406D-02	-0.503029D-03
42	-0.361295D-04	0.409577D-05	-0.979336D-04	0.308001D-04	0.133786D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679741D-03				
22	-0.137466D-03	0.652635D-03			
23	-0.300206D-04	0.352447D-04	0.732789D-03		
24	-0.239637D-04	0.149554D-04	0.119156D-03	0.338061D-03	
25	0.221867D-03	-0.480915D-04	-0.103099D-03	-0.980617D-04	0.129236D-02
26	-0.139751D-03	0.196795D-03	0.696585D-04	0.830441D-04	-0.137409D-03
27	-0.645550D-04	0.874855D-04	0.222570D-03	0.134554D-03	-0.395101D-03
28	0.286546D-04	-0.260124D-04	-0.206242D-03	-0.375084D-04	0.515536D-04
29	0.957899D-05	-0.238945D-04	-0.251920D-04	-0.784352D-04	0.282731D-04
30	-0.168813D-03	0.559622D-04	0.104526D-03	0.317138D-04	-0.300947D-03
31	0.801418D-04	-0.186274D-03	-0.155952D-04	-0.182986D-04	0.402010D-04
32	0.217052D-04	-0.449455D-04	-0.836296D-04	-0.752652D-04	0.166239D-03
33	-0.190649D-04	0.252860D-04	0.296532D-04	0.414167D-04	-0.418940D-04
34	-0.248845D-03	0.101031D-03	-0.619092D-04	0.588834D-04	-0.160215D-03
35	-0.507665D-03	0.397308D-03	-0.103363D-03	0.122294D-03	-0.592583D-03
36	0.355612D-04	0.476847D-04	0.278571D-05	0.381191D-04	-0.159414D-04

37	-0.206061D-04	-0.157168D-04	-0.247435D-04	-0.188677D-04	-0.455162D-05
38	0.126235D-04	0.153655D-04	0.375808D-04	0.186304D-04	0.151910D-05
39	0.143237D-03	-0.204990D-03	-0.150071D-03	0.373951D-04	0.184956D-03
40	0.250246D-03	-0.287893D-03	-0.363520D-03	0.195496D-03	0.750016D-04
41	0.578069D-03	-0.796840D-04	-0.677749D-03	0.828417D-03	-0.569911D-03
42	0.174295D-04	-0.418480D-04	0.154219D-04	0.211266D-06	0.397372D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650023D-03				
27	0.437871D-03	0.241825D-02			
28	-0.322898D-04	-0.687584D-04	0.686002D-03		
29	-0.368590D-04	-0.517476D-04	0.112368D-03	0.287865D-03	
30	0.843208D-04	0.150297D-03	-0.120978D-03	-0.785290D-04	0.112445D-02
31	-0.185735D-03	-0.123271D-03	0.743956D-04	0.730105D-04	-0.167917D-03
32	-0.234929D-03	-0.575797D-03	0.152323D-03	0.920945D-04	-0.231409D-03
33	0.833177D-04	0.153516D-03	-0.160470D-03	-0.131454D-03	0.271623D-03
34	0.661570D-04	-0.480645D-04	0.184901D-04	-0.719969D-05	0.544787D-04
35	0.363219D-03	-0.414927D-04	-0.987442D-05	0.148290D-04	0.278663D-03
36	0.126752D-03	0.853500D-04	-0.116764D-05	-0.175249D-04	-0.967278D-04
37	-0.484432D-04	-0.524184D-04	-0.676189D-05	0.881118D-05	0.248015D-04
38	-0.346070D-04	-0.543938D-05	-0.528035D-04	-0.710379D-05	0.741699D-04
39	0.193362D-03	0.857741D-04	0.270481D-03	0.147011D-03	-0.313286D-03
40	0.492445D-03	0.704946D-03	0.538103D-03	0.364436D-03	-0.604606D-03
41	0.148479D-02	0.267453D-02	0.863052D-03	0.688911D-03	-0.100667D-02
42	-0.765471D-04	-0.446418D-04	-0.354185D-04	0.566061D-05	0.403423D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597735D-03				
32	0.241956D-03	0.115789D-02			
33	-0.349949D-03	-0.537350D-03	0.195424D-02		
34	0.462792D-04	-0.204416D-03	0.730930D-04	0.259273D-01	
35	0.930992D-05	-0.614554D-03	0.236810D-03	0.540192D-01	0.155948D+00
36	-0.700197D-04	-0.129537D-04	-0.212935D-03	0.256257D-03	0.635291D-03
37	0.205124D-04	0.530408D-05	0.105588D-03	-0.152233D-03	-0.312550D-03
38	-0.938158D-06	-0.212247D-04	0.340187D-04	-0.600318D-04	-0.396619D-04
39	0.232815D-03	0.136509D-03	-0.107880D-03	0.197556D-03	0.281151D-03
40	0.704218D-03	0.118725D-03	-0.622045D-03	-0.735436D-03	-0.898685D-03
41	0.218997D-02	-0.538520D-03	-0.203436D-02	-0.668499D-02	-0.112106D-01

42 0.106369D-04 0.388206D-04 0.448053D-04 -0.459248D-04 -0.199859D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.815728D-02				
37	-0.316333D-02	0.175432D-02			
38	0.180566D-03	-0.255714D-03	0.152865D-02		
39	0.271803D-03	0.793140D-04	-0.635774D-03	0.802364D-01	
40	0.498756D-03	-0.243775D-04	-0.128932D-02	0.171732D+00	0.425734D+00
41	0.205343D-02	-0.108143D-02	-0.302211D-02	0.370112D+00	0.104139D+01
42	-0.183565D-02	0.142394D-02	-0.473167D-03	0.559421D-04	-0.453358D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.297883D+01	
42	-0.180314D-02	0.487998D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.014	-0.040	-0.011	0.017
8	0.030	-0.007	0.024	-0.006	-0.021
9	0.016	0.020	0.030	0.022	0.049
10	-0.007	0.031	0.017	0.008	0.021
11	0.035	0.016	-0.014	-0.015	0.010
12	0.001	0.018	-0.012	0.012	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.023	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.057	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.008	-0.017	0.010	0.045	0.006
35	-0.001	-0.012	-0.004	0.034	0.005
36	-0.012	-0.036	0.020	0.038	0.008
37	0.014	0.046	-0.018	-0.027	0.011
38	0.015	0.010	0.016	0.063	-0.008
39	-0.013	-0.001	-0.032	-0.007	0.046
40	-0.018	-0.009	-0.019	-0.006	0.053
41	-0.019	-0.012	-0.009	-0.004	0.052
42	0.029	0.027	0.002	0.014	0.042

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.005	-0.118	1.000		
9	0.006	0.045	0.127	1.000	
10	-0.002	0.001	-0.035	0.067	1.000
11	-0.013	-0.134	-0.032	0.024	-0.126
12	0.015	-0.008	0.104	-0.111	0.127
13	-0.018	0.049	0.005	0.008	-0.013
14	0.039	0.035	-0.028	0.008	0.027
15	0.017	-0.014	-0.011	0.028	0.046
16	-0.024	0.001	0.003	0.010	0.002
17	-0.035	0.002	-0.015	-0.010	0.005
18	-0.029	0.021	-0.013	-0.011	0.011
19	0.020	-0.015	-0.004	0.002	-0.023
20	0.008	-0.014	0.050	0.014	-0.014
21	0.006	0.003	-0.059	-0.030	0.007

22	-0.043	0.012	0.026	-0.002	-0.016
23	-0.005	-0.009	0.003	-0.016	-0.018
24	-0.006	0.011	-0.014	0.028	0.013
25	-0.020	0.015	-0.040	-0.015	-0.024
26	-0.003	0.019	0.042	0.043	0.002
27	-0.009	0.045	0.014	0.028	0.027
28	0.033	-0.014	-0.032	0.030	0.032
29	-0.009	0.023	-0.030	0.006	-0.020
30	-0.005	0.003	0.037	0.003	0.043
31	0.004	-0.011	-0.050	-0.023	0.007
32	-0.006	0.015	-0.042	-0.027	0.002
33	0.030	0.027	0.026	0.009	0.008
34	-0.029	0.005	-0.024	-0.065	-0.004
35	-0.034	0.019	-0.025	-0.064	-0.009
36	-0.002	-0.005	0.067	-0.008	-0.015
37	-0.005	0.007	-0.061	-0.009	0.005
38	0.032	0.036	0.081	0.116	0.019
39	-0.052	0.004	0.019	-0.020	-0.030
40	-0.045	0.000	0.011	-0.020	-0.023
41	-0.031	-0.007	0.002	-0.016	-0.013
42	-0.014	-0.054	-0.169	0.012	-0.056

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.176	1.000			
13	-0.003	-0.016	1.000		
14	0.019	0.044	0.334	1.000	
15	-0.008	0.007	0.062	0.327	1.000
16	0.006	-0.032	-0.185	-0.175	-0.084
17	0.055	-0.023	-0.092	-0.142	-0.200
18	-0.026	0.045	0.023	0.016	-0.011
19	-0.025	0.009	0.115	0.105	0.023
20	-0.059	-0.013	0.029	0.053	0.207
21	0.029	0.011	-0.025	-0.014	-0.026
22	0.002	0.006	0.014	-0.032	0.026
23	0.010	0.036	0.207	0.103	0.017
24	-0.033	0.016	0.056	0.145	0.140
25	0.026	-0.020	-0.021	-0.067	-0.008
26	-0.003	0.016	0.009	0.004	0.035
27	0.021	0.041	0.026	-0.014	-0.023
28	-0.009	-0.016	-0.109	-0.131	-0.041

29	0.051	0.030	-0.025	-0.083	-0.160
30	-0.001	-0.004	0.076	0.055	0.023
31	0.002	0.002	-0.015	-0.020	-0.034
32	-0.008	0.014	0.008	-0.036	-0.001
33	-0.001	-0.001	0.026	0.009	0.002
34	-0.001	0.004	0.004	0.009	0.026
35	-0.007	0.021	0.001	-0.008	-0.002
36	-0.013	0.058	0.027	0.016	0.016
37	-0.003	-0.063	-0.041	-0.034	-0.023
38	0.053	0.021	0.073	0.079	0.025
39	-0.043	-0.010	0.019	0.020	0.023
40	-0.036	-0.005	0.002	-0.004	0.011
41	-0.021	0.004	-0.016	-0.018	0.010
42	-0.024	-0.012	-0.003	-0.042	-0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.256
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.051	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.045	0.033	0.001
35	0.032	-0.018	0.040	0.036	-0.022
36	0.039	0.044	0.002	0.018	0.018
37	-0.033	-0.025	-0.012	-0.019	-0.006
38	-0.039	-0.012	0.042	0.005	0.008
39	0.000	-0.018	-0.033	-0.022	-0.022
40	0.009	-0.007	-0.038	-0.028	-0.017

41	0.012	-0.006	-0.036	-0.035	-0.022
42	-0.019	0.003	-0.028	0.023	0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.017	0.022	0.025	0.051	-0.026
34	-0.059	0.025	-0.014	0.020	-0.028
35	-0.049	0.039	-0.010	0.017	-0.042
36	0.015	0.021	0.001	0.023	-0.005
37	-0.019	-0.015	-0.022	-0.024	-0.003
38	0.012	0.015	0.036	0.026	0.001
39	0.019	-0.028	-0.020	0.007	0.018
40	0.015	-0.017	-0.021	0.016	0.003
41	0.013	-0.002	-0.015	0.026	-0.009
42	0.010	-0.023	0.008	0.000	0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.160	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.016	-0.006	0.004	-0.003	0.010
35	0.036	-0.002	-0.001	0.002	0.021



36	0.055	0.019	0.000	-0.011	-0.032
37	-0.045	-0.025	-0.006	0.012	0.018
38	-0.035	-0.003	-0.052	-0.011	0.057
39	0.027	0.006	0.036	0.031	-0.033
40	0.030	0.022	0.031	0.033	-0.028
41	0.034	0.032	0.019	0.024	-0.017
42	-0.043	-0.013	-0.019	0.005	0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.012	-0.037	0.010	1.000	
35	0.001	-0.046	0.014	0.850	1.000
36	-0.032	-0.004	-0.053	0.018	0.018
37	0.020	0.004	0.057	-0.023	-0.019
38	-0.001	-0.016	0.020	-0.010	-0.003
39	0.034	0.014	-0.009	0.004	0.003
40	0.044	0.005	-0.022	-0.007	-0.003
41	0.052	-0.009	-0.027	-0.024	-0.016
42	0.006	0.016	0.015	-0.004	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.836	1.000			
38	0.051	-0.156	1.000		
39	0.011	0.007	-0.057	1.000	
40	0.008	-0.001	-0.051	0.929	1.000
41	0.013	-0.015	-0.045	0.757	0.925
42	-0.291	0.487	-0.173	0.003	-0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	-0.015	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.013	38
300	1.005	13
400	1.001	22
500	1.009	38
600	1.007	38
700	1.002	6
800	1.004	42
900	1.004	42
1000	1.002	42

Effects of a single practice, medical services

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145

	58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
SINSQU		1.134	0.919	0.006	6.90%	0.044	0.689	1.020
	58.000	1.213	-0.622	3.062	22.41%	1.020	3.062	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.673 28.107

Posterior Predictive P-Value 0.516

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.166	0.051	0.001	0.065	0.261	*
CHOICE15	0.027	0.039	0.255	-0.053	0.104	
BULLY15	0.106	0.059	0.027	-0.002	0.228	
DUTIES15	-0.082	0.043	0.025	-0.170	0.000	*
PRESS15	-0.046	0.040	0.123	-0.124	0.034	
KES15	0.802	0.095	0.000	0.612	0.988	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.075	0.078	0.143	-0.237	0.077	
SINSQU	0.017	0.070	0.388	-0.128	0.151	

SINGLE WITH						
SINSQU	0.756	0.184	0.000	0.449	1.182	*

#### Means

SINGLE	0.189	0.138	0.082	-0.070	0.464	
SINSQU	1.135	0.146	0.000	0.847	1.432	*

#### Thresholds

KESCAT16\$1	-0.462	0.094	0.000	-0.670	-0.287	*
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#### Variances

SINGLE	1.106	0.206	0.000	0.791	1.590	*
SINSQU	1.231	0.231	0.000	0.872	1.771	*

#### Residual Variances

KESCAT16	0.038	0.043	0.000	0.001	0.163	*
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### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.123	0.037	0.001	0.048	0.192	*
CHOICE15	0.025	0.037	0.255	-0.051	0.100	
BULLY15	0.073	0.040	0.027	-0.001	0.156	

DUTIES15	-0.073	0.038	0.025	-0.149	0.000	*
PRESS15	-0.044	0.038	0.123	-0.117	0.032	
KES15	0.396	0.040	0.000	0.311	0.472	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.278	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	



Between Level

KESCAT16 ON						
SINGLE	-0.398	0.372	0.143	-1.120	0.359	
SINSQU	0.099	0.352	0.388	-0.612	0.839	
SINGLE WITH						
SINSQU	0.650	0.077	0.000	0.470	0.770	*
Means						
SINGLE	0.182	0.130	0.082	-0.065	0.436	
SINSQU	1.030	0.161	0.000	0.715	1.350	*
Thresholds						
KESCAT16\$1	-2.136	1.468	0.000	-6.315	-0.902	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.813	0.211	0.000	0.181	0.992	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.223	0.034	0.000	0.159	0.290

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.187	0.211	0.000	0.008	0.819

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16		_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15		0	0	0	0	0
KES15		0	0	0	0	0
CHOICE15		0	0	0	0	0
BULLY15		0	0	0	0	0
PRESS15		0	0	0	0	0
DUTIES15		0	0	0	0	0

	LAMBDA	PRESS15	DUTIES15
KESCAT16		_____ 0	_____ 0
PHY15		0	0
KES15		0	0
CHOICE15		0	0
BULLY15		0	0
PRESS15		0	0
DUTIES15		0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0</u>	
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA		
	PRESS15	DUTIES15
	<u>5</u>	<u>6</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>

0	0	0
---	---	---

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/> 0.000	<hr/> 0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
-------	----------	-------	-------	----------	---------

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000

	DUTIES15
DUTIES15	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>          </u>
-0.352

NU
KESCAT16
<u>          </u>
0.000

SINGLE
<u>          </u>
0.000

SINSQU
<u>          </u>
0.000

LAMBDA



	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.333	1.480

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.684	
SINSQU	0.000	0.000	0.722

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

#### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925411D-04	-0.649581D-04	0.111152D-02		
4	0.451979D-04	0.736642D-04	-0.136564D-03	0.544168D-03	
5	0.101051D-03	0.445868D-04	-0.215393D-03	0.177216D-03	0.108754D-02
6	-0.408527D-04	-0.473621D-04	0.976683D-04	-0.161987D-03	-0.253060D-03
7	-0.261781D-04	-0.118391D-04	-0.661055D-04	-0.131306D-04	0.291297D-04
8	0.663634D-04	-0.747499D-05	0.783833D-04	-0.157423D-04	-0.588152D-04
9	0.149595D-04	0.125387D-04	0.404665D-04	0.189941D-04	0.628425D-04
10	-0.984408D-05	0.306099D-04	0.351071D-04	0.114148D-04	0.433608D-04
11	0.348577D-04	0.891150D-05	-0.193484D-04	-0.113213D-04	0.870939D-05
12	-0.762198D-07	0.146643D-04	-0.177546D-04	0.144674D-04	-0.931869D-04
13	0.611677D-04	0.212398D-04	-0.183541D-04	0.549190D-06	0.323114D-04
14	-0.108299D-05	0.118217D-04	-0.293251D-05	-0.151509D-04	-0.196754D-04
15	0.586098D-05	0.141439D-05	0.195741D-04	-0.166304D-04	-0.974039D-05
16	-0.436468D-04	-0.212709D-04	0.228810D-05	0.728891D-05	-0.174129D-04
17	0.580903D-06	0.109631D-04	-0.787423D-05	0.182803D-06	0.138575D-04
18	-0.383016D-04	-0.124441D-05	-0.340840D-04	0.776068D-05	0.209096D-04
19	0.997811D-05	0.174739D-04	0.153294D-04	-0.702670D-05	-0.129185D-04
20	0.517808D-05	0.215776D-05	0.655326D-06	0.934294D-05	0.688073D-05
21	0.831800D-05	-0.829001D-05	0.110159D-04	0.131317D-05	-0.288460D-04
22	0.170052D-04	0.431088D-05	-0.562975D-05	0.192142D-04	0.568228D-04
23	0.254879D-04	0.125217D-04	0.827657D-05	-0.153127D-04	0.219494D-04
24	0.452979D-05	0.211811D-05	0.163208D-04	0.963110D-05	0.159389D-04
25	-0.282640D-05	-0.390111D-05	-0.174137D-04	0.186745D-04	-0.512418D-05
26	-0.325783D-05	-0.116784D-04	0.198676D-05	0.236675D-04	0.304744D-04
27	0.343320D-04	-0.451957D-05	-0.245783D-04	0.183403D-04	0.475638D-04
28	-0.950203D-05	-0.209393D-04	-0.878032D-05	-0.345180D-04	-0.194253D-04
29	-0.213571D-05	0.179171D-05	-0.109431D-04	-0.407661D-05	0.198102D-04
30	-0.611088D-05	-0.126269D-04	-0.169375D-04	0.102544D-04	0.467995D-04
31	-0.881615D-05	0.161548D-05	0.306396D-04	-0.185043D-04	-0.477041D-05
32	-0.429111D-04	0.405108D-05	0.729482D-04	-0.344674D-04	-0.114489D-04
33	-0.110737D-05	0.619350D-05	-0.420027D-04	0.265397D-04	-0.690097D-05
34	-0.222936D-04	-0.354908D-04	0.403463D-04	0.147290D-03	0.288728D-04
35	0.168165D-04	-0.197970D-04	-0.583185D-04	0.608119D-04	0.129552D-04
36	-0.479576D-04	-0.114143D-04	0.201948D-04	0.603083D-04	0.277973D-04
37	0.427892D-04	0.513165D-04	-0.151316D-04	-0.262633D-04	0.359978D-04
38	0.123151D-04	0.747870D-05	0.251513D-04	0.652971D-04	-0.202220D-04
39	-0.205587D-04	0.369934D-04	-0.273179D-03	-0.244363D-04	0.199554D-03
40	-0.607809D-04	-0.224747D-04	-0.145578D-03	-0.210091D-04	0.284711D-03
41	-0.114759D-03	-0.596928D-04	-0.701682D-04	-0.255956D-04	0.385462D-03
42	0.676485D-04	0.611280D-04	0.146437D-04	0.151012D-04	0.114854D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881823D-03				
7	-0.618647D-05	0.258480D-02			
8	-0.138072D-04	-0.575504D-03	0.897353D-02		
9	0.606547D-05	0.805790D-04	0.456938D-03	0.150557D-02	
10	-0.331622D-05	0.102460D-04	-0.193600D-03	0.155268D-03	0.351102D-02
11	-0.151061D-04	-0.282740D-03	-0.119513D-03	0.453487D-04	-0.294234D-03
12	0.192551D-04	-0.105216D-04	0.425748D-03	-0.177703D-03	0.322237D-03
13	-0.161118D-04	0.727842D-04	0.894589D-05	0.842121D-05	-0.218012D-04
14	0.166831D-04	0.278215D-04	-0.367874D-04	0.496274D-05	0.237342D-04
15	0.692073D-05	-0.884562D-05	-0.185197D-04	0.145603D-04	0.363897D-04
16	-0.201837D-04	0.297237D-05	0.277278D-05	0.100661D-04	0.316437D-05
17	-0.197632D-04	-0.102938D-05	-0.294273D-04	-0.858309D-05	0.507982D-05
18	-0.428845D-04	0.564565D-04	-0.601017D-04	-0.225668D-04	0.338091D-04
19	0.116559D-04	-0.146359D-04	-0.836867D-05	0.117988D-05	-0.251810D-04
20	0.330152D-05	-0.848567D-05	0.657518D-04	0.716717D-05	-0.975304D-05
21	0.471926D-05	0.307024D-05	-0.146924D-03	-0.303526D-04	0.106933D-04
22	-0.325094D-04	0.161138D-04	0.587046D-04	-0.255808D-05	-0.232937D-04
23	-0.407889D-05	-0.115439D-04	0.594102D-05	-0.169144D-04	-0.310792D-04
24	-0.330690D-05	0.116706D-04	-0.265808D-04	0.205167D-04	0.152400D-04
25	-0.214847D-04	0.266159D-04	-0.142263D-03	-0.195838D-04	-0.498558D-04
26	-0.222345D-05	0.249947D-04	0.901984D-04	0.426321D-04	0.369085D-05
27	-0.132363D-04	0.107437D-03	0.435449D-04	0.515948D-04	0.780916D-04
28	0.255284D-04	-0.224487D-04	-0.846311D-04	0.306735D-04	0.501676D-04
29	-0.446564D-05	0.187671D-04	-0.464029D-04	0.388705D-05	-0.190428D-04
30	-0.527311D-05	0.778526D-05	0.121968D-03	0.293364D-05	0.844842D-04
31	0.260723D-05	-0.138705D-04	-0.111262D-03	-0.212219D-04	0.778689D-05
32	-0.579989D-05	0.266654D-04	-0.128578D-03	-0.358036D-04	0.131324D-05
33	0.387238D-04	0.617267D-04	0.128143D-03	0.148085D-04	0.223278D-04
34	-0.116468D-03	0.386794D-04	-0.347526D-03	-0.343796D-03	-0.273137D-04
35	-0.141828D-03	0.181352D-03	-0.267652D-03	-0.307015D-03	-0.700041D-04
36	0.138881D-04	-0.565337D-04	0.110363D-03	-0.146174D-04	-0.165358D-03
37	-0.313104D-04	0.396919D-04	-0.163891D-04	-0.598111D-04	0.805679D-04
38	0.419432D-04	0.833313D-04	0.287612D-03	0.166731D-03	0.641757D-04
39	-0.298197D-03	0.576358D-04	0.533504D-03	-0.835313D-04	-0.406953D-03
40	-0.271035D-03	0.467809D-04	0.357098D-03	-0.126886D-03	-0.303500D-03
41	-0.195401D-03	-0.548978D-04	0.383696D-04	-0.122788D-03	-0.157527D-03
42	-0.486738D-04	-0.145407D-03	-0.911245D-03	0.457108D-05	-0.169073D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.163173D-02				
12	0.299028D-03	0.185247D-02			
13	-0.677112D-06	-0.200904D-04	0.887204D-03		
14	0.936546D-05	0.282747D-04	0.144167D-03	0.209516D-03	
15	-0.316580D-05	0.281400D-05	0.245873D-04	0.632886D-04	0.178540D-03
16	0.874359D-05	-0.373103D-04	-0.152803D-03	-0.702389D-04	-0.312464D-04
17	0.440915D-04	-0.180267D-04	-0.515493D-04	-0.385939D-04	-0.503960D-04
18	-0.510552D-04	0.967912D-04	0.342360D-04	0.115898D-04	-0.743470D-05
19	-0.181764D-04	0.778318D-05	0.671904D-04	0.296138D-04	0.604197D-05
20	-0.320222D-04	-0.668974D-05	0.115412D-04	0.103542D-04	0.370412D-04
21	0.318318D-04	0.109172D-04	-0.192648D-04	-0.531880D-05	-0.922335D-05
22	0.305014D-05	0.743436D-05	0.109820D-04	-0.118903D-04	0.891193D-05
23	0.133349D-04	0.401023D-04	0.167288D-03	0.405074D-04	0.601742D-05
24	-0.225596D-04	0.118344D-04	0.306063D-04	0.384801D-04	0.344888D-04
25	0.373260D-04	-0.340926D-04	-0.228167D-04	-0.347870D-04	-0.407381D-05
26	0.218428D-07	0.160391D-04	0.649579D-05	0.160864D-05	0.118936D-04
27	0.525205D-04	0.782753D-04	0.386168D-04	-0.102906D-04	-0.152127D-04
28	-0.715253D-05	-0.213242D-04	-0.849053D-04	-0.497723D-04	-0.142774D-04
29	0.334648D-04	0.237533D-04	-0.125916D-04	-0.204265D-04	-0.363776D-04
30	-0.317285D-05	-0.136364D-05	0.759160D-04	0.268218D-04	0.103239D-04
31	0.174560D-05	0.930058D-06	-0.109716D-04	-0.693740D-05	-0.112002D-04
32	-0.144771D-04	0.224468D-04	0.794458D-05	-0.177051D-04	-0.657194D-06
33	-0.765963D-05	0.404531D-05	0.344329D-04	0.560015D-05	0.130133D-05
34	0.220364D-05	0.104111D-04	0.901202D-05	0.158471D-04	0.479184D-04
35	-0.616384D-04	0.184218D-03	-0.135962D-04	-0.401870D-04	-0.389936D-04
36	0.648251D-04	0.106525D-03	0.734859D-05	-0.213279D-04	-0.188142D-04
37	-0.228582D-03	0.373232D-04	-0.438244D-04	0.155071D-04	0.996157D-05
38	0.137262D-03	0.888799D-04	0.957438D-04	0.489450D-04	0.120909D-04
39	-0.327258D-03	-0.148324D-03	0.205901D-03	0.138033D-03	0.970609D-04
40	-0.311329D-03	-0.112829D-03	0.776702D-04	0.169792D-04	0.225461D-04
41	-0.190645D-03	0.992616D-05	-0.122798D-03	-0.600374D-04	0.271236D-04
42	-0.319219D-03	0.126204D-03	-0.341561D-05	-0.487372D-05	-0.165890D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769026D-03				
17	0.156226D-03	0.354740D-03			
18	-0.227095D-03	-0.189528D-03	0.243867D-02		
19	-0.865733D-04	-0.203898D-04	0.315916D-04	0.382765D-03	

20	-0.222556D-04	-0.469638D-04	-0.745263D-05	0.626910D-04	0.180155D-03
21	0.291861D-04	0.785729D-04	-0.291536D-03	-0.493749D-04	-0.695965D-04
22	-0.111386D-04	-0.190948D-04	0.505546D-04	0.404020D-04	0.785282D-04
23	-0.105891D-03	-0.310651D-04	0.594982D-04	0.140433D-03	0.268101D-04
24	-0.243856D-04	-0.662565D-04	0.114056D-04	0.237783D-04	0.630563D-04
25	0.126742D-03	0.658586D-04	-0.445653D-03	-0.703477D-06	-0.137491D-04
26	-0.290448D-05	-0.194880D-04	0.621786D-04	0.586116D-04	0.497256D-04
27	-0.687832D-05	-0.268392D-04	0.178416D-03	0.227877D-04	0.209242D-04
28	0.981842D-04	0.245422D-04	-0.701209D-04	-0.123500D-03	-0.325967D-04
29	0.251633D-04	0.505870D-04	0.576009D-05	-0.167983D-04	-0.546375D-04
30	-0.613364D-04	-0.711422D-04	0.278708D-03	0.387480D-04	0.125673D-04
31	0.718545D-05	0.232439D-04	-0.155142D-05	-0.352441D-04	-0.495848D-04
32	0.707948D-05	0.326449D-05	-0.323669D-04	-0.122460D-04	-0.577925D-05
33	-0.294624D-05	-0.142315D-04	-0.379890D-04	-0.333894D-07	0.177586D-04
34	0.916175D-04	-0.132349D-03	0.298988D-03	0.875448D-04	0.296442D-05
35	0.125135D-03	0.119621D-04	0.226107D-03	0.912062D-04	-0.639288D-04
36	0.841125D-04	0.775558D-04	-0.590800D-04	-0.378711D-04	-0.173563D-04
37	-0.496361D-04	-0.515785D-04	0.103439D-04	0.267556D-04	0.374592D-04
38	-0.431842D-04	-0.116768D-04	0.871851D-04	0.442845D-05	0.453361D-05
39	-0.762550D-04	-0.127638D-03	-0.199589D-03	-0.500345D-04	-0.727170D-04
40	0.202945D-04	-0.220870D-04	-0.335532D-03	-0.630694D-04	-0.245710D-04
41	0.712195D-04	-0.203649D-04	-0.445772D-03	-0.153702D-03	-0.653342D-04
42	-0.444315D-04	-0.311608D-04	-0.694082D-04	0.640253D-04	0.461223D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679769D-03				
22	-0.137460D-03	0.652661D-03			
23	-0.300314D-04	0.352518D-04	0.732779D-03		
24	-0.239631D-04	0.149556D-04	0.119151D-03	0.338059D-03	
25	0.221895D-03	-0.480934D-04	-0.103113D-03	-0.980668D-04	0.129239D-02
26	-0.139767D-03	0.196829D-03	0.696670D-04	0.830501D-04	-0.137420D-03
27	-0.645681D-04	0.874838D-04	0.222598D-03	0.134578D-03	-0.395126D-03
28	0.286619D-04	-0.260221D-04	-0.206203D-03	-0.374979D-04	0.515607D-04
29	0.958277D-05	-0.238938D-04	-0.251928D-04	-0.784381D-04	0.282766D-04
30	-0.168796D-03	0.559764D-04	0.104547D-03	0.317363D-04	-0.300963D-03
31	0.801336D-04	-0.186278D-03	-0.156056D-04	-0.183042D-04	0.401845D-04
32	0.216868D-04	-0.449569D-04	-0.836158D-04	-0.752699D-04	0.166237D-03
33	-0.190206D-04	0.252568D-04	0.296257D-04	0.413866D-04	-0.418791D-04
34	-0.207752D-03	0.844218D-04	-0.525444D-04	0.517154D-04	-0.136747D-03
35	-0.134173D-03	0.156602D-03	-0.177620D-04	0.265957D-04	-0.229331D-03
36	0.552844D-04	0.124861D-04	-0.649660D-04	-0.190291D-04	0.148470D-04

37	-0.541900D-04	0.182560D-04	0.195220D-04	0.469967D-05	-0.340126D-04
38	0.237075D-04	0.122803D-04	0.515582D-04	0.198664D-04	0.473753D-05
39	0.136366D-03	-0.185688D-03	-0.867528D-04	-0.869804D-05	0.257321D-03
40	0.716765D-04	-0.136596D-03	-0.119081D-03	0.211305D-04	0.971729D-04
41	0.615919D-04	-0.968475D-05	-0.814900D-04	0.109782D-03	-0.840331D-04
42	-0.173384D-04	-0.120241D-04	0.592696D-04	0.159188D-04	0.140288D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650036D-03				
27	0.437870D-03	0.241831D-02			
28	-0.322631D-04	-0.687590D-04	0.686025D-03		
29	-0.368634D-04	-0.517786D-04	0.112375D-03	0.287874D-03	
30	0.843237D-04	0.150340D-03	-0.120990D-03	-0.785458D-04	0.112452D-02
31	-0.185760D-03	-0.123244D-03	0.743880D-04	0.730089D-04	-0.167937D-03
32	-0.234898D-03	-0.575861D-03	0.152320D-03	0.921042D-04	-0.231390D-03
33	0.833254D-04	0.153507D-03	-0.160473D-03	-0.131475D-03	0.271660D-03
34	0.537403D-04	-0.540167D-04	0.169303D-04	-0.342490D-05	0.429722D-04
35	0.147100D-03	-0.138589D-04	-0.191548D-04	0.163085D-04	0.107647D-03
36	0.489766D-04	0.127089D-03	0.603658D-04	-0.843266D-06	-0.132714D-03
37	-0.135706D-04	-0.156752D-03	-0.115639D-03	-0.747025D-05	0.713564D-04
38	-0.427789D-04	-0.144071D-04	-0.566381D-04	-0.891497D-05	0.747645D-04
39	0.983880D-04	-0.138474D-03	0.181179D-03	0.552661D-04	-0.219376D-03
40	0.103152D-03	0.120372D-03	0.176814D-03	0.103880D-03	-0.206949D-03
41	0.207796D-03	0.368482D-03	0.103025D-03	0.885807D-04	-0.146018D-03
42	-0.557136D-04	-0.175605D-03	-0.147865D-03	-0.661358D-05	0.890069D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597761D-03				
32	0.241956D-03	0.115794D-02			
33	-0.349950D-03	-0.537291D-03	0.195421D-02		
34	0.432968D-04	-0.169544D-03	0.599028D-04	0.190027D-01	
35	-0.247693D-04	-0.200332D-03	0.845840D-04	0.123508D-01	0.213627D-01
36	-0.158530D-04	-0.226176D-04	-0.180536D-03	0.141607D-03	-0.716704D-04
37	-0.108061D-04	0.733622D-05	0.178714D-03	-0.158417D-03	0.901491D-04
38	0.318220D-05	-0.183650D-04	0.385695D-04	-0.647822D-04	0.777317D-05
39	0.916060D-04	0.134637D-03	0.856876D-04	0.389787D-03	0.353780D-04
40	0.154287D-03	0.930045D-04	-0.121159D-03	0.177888D-03	0.244945D-03
41	0.289487D-03	-0.861191D-04	-0.272040D-03	-0.811734D-03	-0.201922D-03

42 -0.165642D-04 0.562002D-04 0.133385D-03 -0.877204D-04 0.315134D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.600916D-02				
37	-0.394818D-02	0.489333D-02			
38	-0.356588D-03	-0.309465D-03	0.187213D-02		
39	0.274824D-03	0.127693D-03	-0.456499D-03	0.424875D-01	
40	0.120911D-03	-0.350152D-04	-0.352420D-03	0.293997D-01	0.339150D-01
41	0.152459D-03	-0.630866D-06	-0.371610D-03	0.212840D-01	0.325841D-01
42	-0.301521D-02	0.496591D-02	-0.559347D-03	0.220137D-03	-0.285097D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.531908D-01	
42	-0.267048D-03	0.891042D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.014	-0.039	-0.011	0.017
8	0.028	-0.005	0.025	-0.007	-0.019
9	0.016	0.019	0.031	0.021	0.049
10	-0.007	0.031	0.018	0.008	0.022
11	0.035	0.013	-0.014	-0.012	0.007
12	0.000	0.020	-0.012	0.014	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020



20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.007	-0.015	0.009	0.046	0.006
35	0.005	-0.008	-0.012	0.018	0.003
36	-0.025	-0.009	0.008	0.033	0.011
37	0.025	0.044	-0.006	-0.016	0.016
38	0.012	0.010	0.017	0.065	-0.014
39	-0.004	0.011	-0.040	-0.005	0.029
40	-0.013	-0.007	-0.024	-0.005	0.047
41	-0.020	-0.016	-0.009	-0.005	0.051
42	0.029	0.039	0.005	0.007	0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.005	-0.119	1.000		
9	0.005	0.041	0.124	1.000	
10	-0.002	0.003	-0.034	0.068	1.000
11	-0.013	-0.138	-0.031	0.029	-0.123
12	0.015	-0.005	0.104	-0.106	0.126
13	-0.018	0.048	0.003	0.007	-0.012
14	0.039	0.038	-0.027	0.009	0.028
15	0.017	-0.013	-0.015	0.028	0.046
16	-0.025	0.002	0.001	0.009	0.002
17	-0.035	-0.001	-0.016	-0.012	0.005
18	-0.029	0.022	-0.013	-0.012	0.012
19	0.020	-0.015	-0.005	0.002	-0.022
20	0.008	-0.012	0.052	0.014	-0.012
21	0.006	0.002	-0.059	-0.030	0.007

22	-0.043	0.012	0.024	-0.003	-0.015
23	-0.005	-0.008	0.002	-0.016	-0.019
24	-0.006	0.012	-0.015	0.029	0.014
25	-0.020	0.015	-0.042	-0.014	-0.023
26	-0.003	0.019	0.037	0.043	0.002
27	-0.009	0.043	0.009	0.027	0.027
28	0.033	-0.017	-0.034	0.030	0.032
29	-0.009	0.022	-0.029	0.006	-0.019
30	-0.005	0.005	0.038	0.002	0.043
31	0.004	-0.011	-0.048	-0.022	0.005
32	-0.006	0.015	-0.040	-0.027	0.001
33	0.029	0.027	0.031	0.009	0.009
34	-0.028	0.006	-0.027	-0.064	-0.003
35	-0.033	0.024	-0.019	-0.054	-0.008
36	0.006	-0.014	0.015	-0.005	-0.036
37	-0.015	0.011	-0.002	-0.022	0.019
38	0.033	0.038	0.070	0.099	0.025
39	-0.049	0.005	0.027	-0.010	-0.033
40	-0.050	0.005	0.020	-0.018	-0.028
41	-0.029	-0.005	0.002	-0.014	-0.012
42	-0.017	-0.030	-0.102	0.001	-0.030

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.172	1.000			
13	-0.001	-0.016	1.000		
14	0.016	0.045	0.334	1.000	
15	-0.006	0.005	0.062	0.327	1.000
16	0.008	-0.031	-0.185	-0.175	-0.084
17	0.058	-0.022	-0.092	-0.142	-0.200
18	-0.026	0.046	0.023	0.016	-0.011
19	-0.023	0.009	0.115	0.105	0.023
20	-0.059	-0.012	0.029	0.053	0.207
21	0.030	0.010	-0.025	-0.014	-0.026
22	0.003	0.007	0.014	-0.032	0.026
23	0.012	0.034	0.207	0.103	0.017
24	-0.030	0.015	0.056	0.145	0.140
25	0.026	-0.022	-0.021	-0.067	-0.008
26	0.000	0.015	0.009	0.004	0.035
27	0.026	0.037	0.026	-0.014	-0.023
28	-0.007	-0.019	-0.109	-0.131	-0.041

29	0.049	0.033	-0.025	-0.083	-0.160
30	-0.002	-0.001	0.076	0.055	0.023
31	0.002	0.001	-0.015	-0.020	-0.034
32	-0.011	0.015	0.008	-0.036	-0.001
33	-0.004	0.002	0.026	0.009	0.002
34	0.000	0.002	0.002	0.008	0.026
35	-0.010	0.029	-0.003	-0.019	-0.020
36	0.021	0.032	0.003	-0.019	-0.018
37	-0.081	0.012	-0.021	0.015	0.011
38	0.079	0.048	0.074	0.078	0.021
39	-0.039	-0.017	0.034	0.046	0.035
40	-0.042	-0.014	0.014	0.006	0.009
41	-0.020	0.001	-0.018	-0.018	0.009
42	-0.084	0.031	-0.001	-0.004	-0.013

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.256
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.118	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.008	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.044	0.032	0.002
35	0.031	0.004	0.031	0.032	-0.033
36	0.039	0.053	-0.015	-0.025	-0.017
37	-0.026	-0.039	0.003	0.020	0.040
38	-0.036	-0.014	0.041	0.005	0.008
39	-0.013	-0.033	-0.020	-0.012	-0.026
40	0.004	-0.006	-0.037	-0.018	-0.010

41	0.011	-0.005	-0.039	-0.034	-0.021
42	-0.017	-0.018	-0.015	0.035	0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.224
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.017	0.022	0.025	0.051	-0.026
34	-0.058	0.024	-0.014	0.020	-0.028
35	-0.035	0.042	-0.004	0.010	-0.044
36	0.027	0.006	-0.031	-0.013	0.005
37	-0.030	0.010	0.010	0.004	-0.014
38	0.021	0.011	0.044	0.025	0.003
39	0.025	-0.035	-0.016	-0.002	0.035
40	0.015	-0.029	-0.024	0.006	0.015
41	0.010	-0.002	-0.013	0.026	-0.010
42	-0.007	-0.005	0.023	0.009	0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.160	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.015	-0.008	0.005	-0.001	0.009
35	0.039	-0.002	-0.005	0.007	0.022

36	0.025	0.033	0.030	-0.001	-0.051
37	-0.008	-0.046	-0.063	-0.006	0.030
38	-0.039	-0.007	-0.050	-0.012	0.052
39	0.019	-0.014	0.034	0.016	-0.032
40	0.022	0.013	0.037	0.033	-0.034
41	0.035	0.032	0.017	0.023	-0.019
42	-0.023	-0.038	-0.060	-0.004	0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.013	-0.036	0.010	1.000	
35	-0.007	-0.040	0.013	0.613	1.000
36	-0.008	-0.009	-0.053	0.013	-0.006
37	-0.006	0.003	0.058	-0.016	0.009
38	0.003	-0.012	0.020	-0.011	0.001
39	0.018	0.019	0.009	0.014	0.001
40	0.034	0.015	-0.015	0.007	0.009
41	0.051	-0.011	-0.027	-0.026	-0.006
42	-0.007	0.017	0.032	-0.007	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.728	1.000			
38	-0.106	-0.102	1.000		
39	0.017	0.009	-0.051	1.000	
40	0.008	-0.003	-0.044	0.774	1.000
41	0.009	0.000	-0.037	0.448	0.767
42	-0.412	0.752	-0.137	0.011	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	-0.012	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.016	38
300	1.005	13
400	1.002	38
500	1.010	38
600	1.009	38
700	1.002	6
800	1.003	42
900	1.004	42
1000	1.002	42

Effects of a single practice, provision of health benefits

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010



	58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
SINSQU		0.894	0.168	0.000	1.72%	0.026	0.325	0.793
	58.000	0.604	-1.643	2.074	5.17%	1.300	1.769	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-22.746 28.384

Posterior Predictive P-Value 0.529

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.165	0.051	0.001	0.065	0.262	*
CHOICE15	0.027	0.039	0.248	-0.053	0.106	
BULLY15	0.104	0.059	0.033	-0.004	0.225	
DUTIES15	-0.077	0.043	0.029	-0.164	0.006	
PRESS15	-0.043	0.040	0.147	-0.119	0.038	
KES15	0.802	0.095	0.000	0.615	0.989	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.090	0.068	0.079	-0.235	0.041	
SINSQU	-0.061	0.078	0.195	-0.223	0.078	

SINGLE WITH						
SINSQU	0.096	0.101	0.141	-0.096	0.304	

#### Means

SINGLE	0.048	0.124	0.347	-0.192	0.295	
SINSQU	0.903	0.107	0.000	0.684	1.109	*

#### Thresholds

KESCAT16\$1	-0.519	0.086	0.000	-0.711	-0.360	*
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#### Variances

SINGLE	0.903	0.169	0.000	0.641	1.324	*
SINSQU	0.620	0.116	0.000	0.436	0.885	*

#### Residual Variances

KESCAT16	0.040	0.041	0.000	0.002	0.156	*
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#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.123	0.037	0.001	0.048	0.193	*
CHOICE15	0.026	0.037	0.248	-0.051	0.101	
BULLY15	0.071	0.040	0.033	-0.003	0.154	

DUTIES15	-0.069	0.038	0.029	-0.145	0.005	
PRESS15	-0.041	0.038	0.147	-0.114	0.036	
KES15	0.396	0.040	0.000	0.312	0.473	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.128	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	-0.375	0.256	0.079	-0.833	0.192	
SINSQU	-0.206	0.246	0.195	-0.684	0.300	
SINGLE WITH						
SINSQU	0.131	0.126	0.141	-0.131	0.373	
Means						
SINGLE	0.050	0.129	0.347	-0.195	0.305	
SINSQU	1.142	0.169	0.000	0.821	1.477	*
Thresholds						
KESCAT16\$1	-2.182	1.179	0.000	-5.684	-1.090	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.720	0.213	0.000	0.162	0.983	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.223	0.034	0.000	0.158	0.290

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.280	0.213	0.000	0.017	0.838

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>



0	0	0
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# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

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0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000

NU	PRESS15	DUTIES15
	<hr/> 0.000	<hr/> 0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
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KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u></u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU		
KESCAT16	SINGLE	SINSQU
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.205	0.674

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.316	
SINSQU	0.000	0.000	0.259

# PRIORS FOR ALL PARAMETERS

	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925515D-04	-0.649618D-04	0.111154D-02		
4	0.452003D-04	0.736596D-04	-0.136562D-03	0.544174D-03	
5	0.101045D-03	0.445907D-04	-0.215376D-03	0.177210D-03	0.108755D-02
6	-0.408596D-04	-0.473545D-04	0.976608D-04	-0.161993D-03	-0.253034D-03
7	-0.265291D-04	-0.132448D-04	-0.661035D-04	-0.115057D-04	0.258348D-04
8	0.691264D-04	-0.828415D-05	0.753072D-04	-0.170036D-04	-0.640076D-04
9	0.170380D-04	0.129368D-04	0.394511D-04	0.204164D-04	0.630847D-04
10	-0.111019D-04	0.309104D-04	0.346095D-04	0.141380D-04	0.390020D-04
11	0.351931D-04	0.108795D-04	-0.199737D-04	-0.126422D-04	0.163082D-04
12	0.265322D-06	0.135530D-04	-0.151069D-04	0.106533D-04	-0.934003D-04
13	0.611679D-04	0.212399D-04	-0.183535D-04	0.539540D-06	0.323100D-04
14	-0.108260D-05	0.118220D-04	-0.293288D-05	-0.151554D-04	-0.196709D-04
15	0.586085D-05	0.141469D-05	0.195732D-04	-0.166294D-04	-0.974311D-05
16	-0.436357D-04	-0.212669D-04	0.229155D-05	0.729008D-05	-0.173937D-04
17	0.583048D-06	0.109624D-04	-0.787392D-05	0.185098D-06	0.138535D-04
18	-0.382969D-04	-0.123330D-05	-0.340915D-04	0.775362D-05	0.208958D-04
19	0.998174D-05	0.174740D-04	0.153262D-04	-0.702854D-05	-0.129128D-04
20	0.517566D-05	0.215496D-05	0.649448D-06	0.934425D-05	0.687814D-05
21	0.832067D-05	-0.828364D-05	0.110583D-04	0.131089D-05	-0.288823D-04
22	0.170167D-04	0.430201D-05	-0.562031D-05	0.192012D-04	0.568260D-04
23	0.254997D-04	0.125184D-04	0.827961D-05	-0.153161D-04	0.219768D-04
24	0.453739D-05	0.211929D-05	0.163225D-04	0.962797D-05	0.159654D-04
25	-0.285143D-05	-0.390637D-05	-0.174177D-04	0.186658D-04	-0.514133D-05
26	-0.326708D-05	-0.116850D-04	0.197226D-05	0.236637D-04	0.304763D-04
27	0.343398D-04	-0.448393D-05	-0.246117D-04	0.183669D-04	0.476165D-04
28	-0.948991D-05	-0.209414D-04	-0.878336D-05	-0.345048D-04	-0.194238D-04
29	-0.212132D-05	0.179197D-05	-0.109479D-04	-0.408347D-05	0.198116D-04
30	-0.611302D-05	-0.126217D-04	-0.170116D-04	0.102400D-04	0.467927D-04
31	-0.884141D-05	0.162165D-05	0.306286D-04	-0.184739D-04	-0.476238D-05
32	-0.429126D-04	0.403851D-05	0.729905D-04	-0.344931D-04	-0.114565D-04
33	-0.106524D-05	0.621266D-05	-0.420095D-04	0.264748D-04	-0.689597D-05
34	-0.168030D-04	-0.279772D-04	0.235123D-04	0.141623D-03	0.335075D-04
35	0.323397D-04	0.164286D-05	-0.853708D-04	-0.292363D-04	0.100067D-04
36	-0.339726D-04	-0.117574D-04	0.498673D-04	-0.994306D-05	-0.977672D-06
37	-0.191207D-04	0.313491D-04	-0.343198D-04	0.361853D-04	0.101541D-03
38	0.158862D-04	0.975552D-05	0.193788D-04	0.639514D-04	-0.366651D-05
39	0.243280D-04	0.683451D-04	-0.167915D-03	0.201915D-05	0.186391D-04
40	-0.139787D-05	-0.288573D-05	-0.898266D-04	-0.416231D-05	0.616842D-04
41	-0.664121D-04	-0.379376D-04	-0.388203D-04	-0.248483D-04	0.191739D-03
42	0.184499D-04	0.309189D-04	0.155870D-05	0.676851D-04	0.155615D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	0.881815D-03				
7	-0.645353D-05	0.258562D-02			
8	-0.977298D-05	-0.574272D-03	0.895244D-02		
9	0.571842D-05	0.883843D-04	0.472239D-03	0.151866D-02	
10	-0.336857D-05	0.146569D-04	-0.198756D-03	0.154739D-03	0.352502D-02
11	-0.187966D-04	-0.278168D-03	-0.110457D-03	0.429115D-04	-0.296797D-03
12	0.196347D-04	-0.148775D-04	0.409410D-03	-0.175797D-03	0.319462D-03
13	-0.160986D-04	0.750116D-04	0.125953D-04	0.944648D-05	-0.199748D-04
14	0.166884D-04	0.258776D-04	-0.388902D-04	0.474911D-05	0.241400D-04
15	0.691992D-05	-0.821513D-05	-0.140016D-04	0.152096D-04	0.360657D-04
16	-0.201818D-04	0.350882D-05	0.333658D-05	0.110937D-04	0.421532D-05
17	-0.197714D-04	0.172753D-05	-0.270867D-04	-0.806201D-05	0.576784D-05
18	-0.428546D-04	0.563425D-04	-0.609708D-04	-0.237750D-04	0.365604D-04
19	0.116515D-04	-0.143599D-04	-0.702469D-05	0.144888D-05	-0.249286D-04
20	0.330465D-05	-0.969348D-05	0.619034D-04	0.692896D-05	-0.929485D-05
21	0.469293D-05	0.539986D-05	-0.142789D-03	-0.299705D-04	0.100384D-04
22	-0.325146D-04	0.155564D-04	0.548817D-04	-0.177439D-05	-0.247591D-04
23	-0.406710D-05	-0.106800D-04	0.986666D-05	-0.150853D-04	-0.309933D-04
24	-0.331398D-05	0.117299D-04	-0.237620D-04	0.220558D-04	0.149460D-04
25	-0.215240D-04	0.289936D-04	-0.140685D-03	-0.224875D-04	-0.516304D-04
26	-0.222062D-05	0.261747D-04	0.913269D-04	0.445935D-04	0.367968D-05
27	-0.133038D-04	0.116129D-03	0.647171D-04	0.598966D-04	0.734693D-04
28	0.255089D-04	-0.184126D-04	-0.772309D-04	0.315061D-04	0.481778D-04
29	-0.448060D-05	0.186437D-04	-0.482917D-04	0.400602D-05	-0.182132D-04
30	-0.522351D-05	0.360547D-05	0.114218D-03	0.371412D-05	0.860534D-04
31	0.260260D-05	-0.118879D-04	-0.112785D-03	-0.230099D-04	0.895056D-05
32	-0.582109D-05	0.229826D-04	-0.136051D-03	-0.385064D-04	0.255837D-05
33	0.387635D-04	0.570158D-04	0.118531D-03	0.105687D-04	0.204992D-04
34	-0.100993D-03	0.503563D-04	-0.333945D-03	-0.297822D-03	-0.416125D-04
35	-0.783910D-04	0.120839D-03	-0.945877D-04	-0.103499D-03	-0.473170D-04
36	0.734183D-05	0.293609D-04	-0.994911D-04	-0.120707D-03	-0.697323D-04
37	0.207190D-05	-0.188850D-03	-0.198897D-04	-0.230230D-03	0.248105D-03
38	0.372195D-04	0.819753D-04	0.278783D-03	0.176945D-03	0.930220D-04
39	-0.102428D-03	-0.114362D-04	0.325732D-03	0.287088D-04	-0.211642D-03
40	-0.127820D-03	0.790214D-04	0.321048D-03	-0.451357D-04	-0.174542D-03
41	-0.921425D-04	-0.226234D-04	-0.675329D-06	-0.655808D-04	-0.766101D-04
42	-0.850933D-05	-0.341794D-03	-0.923630D-03	-0.104597D-03	-0.352074D-04



ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.162167D-02				
12	0.306110D-03	0.183884D-02			
13	-0.319976D-05	-0.187120D-04	0.887207D-03		
14	0.101207D-04	0.282404D-04	0.144168D-03	0.209516D-03	
15	-0.509873D-05	0.368035D-05	0.245872D-04	0.632888D-04	0.178540D-03
16	0.901257D-05	-0.382243D-04	-0.152800D-03	-0.702403D-04	-0.312438D-04
17	0.406572D-04	-0.193426D-04	-0.515480D-04	-0.385929D-04	-0.503920D-04
18	-0.500890D-04	0.956497D-04	0.342458D-04	0.115995D-04	-0.744545D-05
19	-0.188399D-04	0.739512D-05	0.672068D-04	0.296113D-04	0.604524D-05
20	-0.318828D-04	-0.847677D-05	0.115450D-04	0.103539D-04	0.370434D-04
21	0.306520D-04	0.118284D-04	-0.192732D-04	-0.532285D-05	-0.923039D-05
22	0.763377D-05	0.803882D-05	0.110024D-04	-0.119037D-04	0.891538D-05
23	0.130434D-04	0.425447D-04	0.167264D-03	0.404943D-04	0.600811D-05
24	-0.231918D-04	0.125438D-04	0.305918D-04	0.384701D-04	0.344811D-04
25	0.370765D-04	-0.324174D-04	-0.228147D-04	-0.347946D-04	-0.407099D-05
26	-0.120377D-05	0.152690D-04	0.651166D-05	0.159868D-05	0.119042D-04
27	0.441378D-04	0.864413D-04	0.385979D-04	-0.102738D-04	-0.152433D-04
28	-0.112960D-04	-0.193683D-04	-0.849300D-04	-0.497626D-04	-0.142734D-04
29	0.348163D-04	0.223842D-04	-0.126010D-04	-0.204274D-04	-0.363758D-04
30	-0.132063D-05	-0.362965D-05	0.759480D-04	0.268238D-04	0.103269D-04
31	-0.256946D-06	0.567047D-06	-0.110087D-04	-0.693912D-05	-0.112134D-04
32	-0.915312D-05	0.210857D-04	0.792248D-05	-0.176959D-04	-0.668419D-06
33	0.277791D-06	0.108496D-05	0.344892D-04	0.562811D-05	0.132676D-05
34	-0.256245D-05	0.675040D-05	-0.242254D-06	0.108585D-04	0.438650D-04
35	-0.216949D-04	0.168533D-03	-0.442572D-04	-0.516610D-04	-0.597483D-04
36	-0.201605D-03	-0.297953D-04	-0.611269D-05	0.447970D-05	0.396469D-04
37	-0.844208D-04	0.217705D-04	-0.119399D-03	-0.459943D-04	-0.237612D-04
38	0.996111D-04	0.551886D-04	0.797381D-04	0.446217D-04	0.134531D-04
39	-0.442421D-04	-0.480389D-04	0.133314D-03	0.142765D-03	0.109645D-03
40	-0.177720D-03	-0.853453D-04	0.103994D-03	0.382393D-04	0.255657D-05
41	-0.105593D-03	0.395405D-04	-0.671912D-04	-0.295077D-04	0.139896D-04
42	-0.141279D-03	0.683091D-04	-0.516011D-04	-0.535928D-04	-0.427053D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769024D-03				
17	0.156226D-03	0.354740D-03			
18	-0.227077D-03	-0.189526D-03	0.243867D-02		
19	-0.865847D-04	-0.203953D-04	0.315777D-04	0.382752D-03	

20	-0.222560D-04	-0.469619D-04	-0.745147D-05	0.626840D-04	0.180147D-03
21	0.291910D-04	0.785878D-04	-0.291583D-03	-0.493616D-04	-0.695911D-04
22	-0.111565D-04	-0.191173D-04	0.505522D-04	0.404029D-04	0.785312D-04
23	-0.105877D-03	-0.310515D-04	0.595162D-04	0.140440D-03	0.268033D-04
24	-0.243754D-04	-0.662495D-04	0.113724D-04	0.237815D-04	0.630505D-04
25	0.126734D-03	0.658569D-04	-0.445649D-03	-0.692980D-06	-0.137534D-04
26	-0.288669D-05	-0.194882D-04	0.621755D-04	0.585981D-04	0.497224D-04
27	-0.683707D-05	-0.268363D-04	0.178484D-03	0.227783D-04	0.209177D-04
28	0.981828D-04	0.245442D-04	-0.700861D-04	-0.123491D-03	-0.325852D-04
29	0.251617D-04	0.505813D-04	0.577130D-05	-0.168011D-04	-0.546314D-04
30	-0.613177D-04	-0.711407D-04	0.278722D-03	0.387297D-04	0.125579D-04
31	0.720525D-05	0.232685D-04	-0.153551D-05	-0.352448D-04	-0.495786D-04
32	0.706132D-05	0.327849D-05	-0.324079D-04	-0.122261D-04	-0.577460D-05
33	-0.300661D-05	-0.142850D-04	-0.379977D-04	-0.246385D-07	0.177375D-04
34	0.860311D-04	-0.116431D-03	0.254811D-03	0.784289D-04	0.282058D-05
35	0.591210D-04	0.697138D-04	0.643875D-04	0.262323D-04	-0.587437D-04
36	0.745204D-04	0.656813D-04	-0.635824D-04	-0.170227D-04	-0.109348D-06
37	0.307045D-04	0.209008D-04	-0.113278D-04	-0.137769D-04	0.391366D-04
38	-0.312709D-04	-0.109864D-04	0.104180D-03	0.484174D-05	0.550180D-05
39	-0.119388D-03	-0.160318D-03	0.573163D-04	-0.372076D-04	-0.826758D-04
40	-0.222896D-04	-0.675618D-05	-0.113297D-03	0.187854D-04	0.108548D-04
41	0.385875D-04	-0.522869D-05	-0.243530D-03	-0.780232D-04	-0.341692D-04
42	0.189877D-04	0.337248D-04	-0.761246D-04	0.356100D-04	0.425236D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679764D-03				
22	-0.137482D-03	0.652641D-03			
23	-0.300254D-04	0.352486D-04	0.732797D-03		
24	-0.239588D-04	0.149584D-04	0.119162D-03	0.338060D-03	
25	0.221891D-03	-0.480785D-04	-0.103075D-03	-0.980576D-04	0.129233D-02
26	-0.139758D-03	0.196809D-03	0.696586D-04	0.830433D-04	-0.137418D-03
27	-0.645895D-04	0.875010D-04	0.222558D-03	0.134564D-03	-0.395077D-03
28	0.286593D-04	-0.260238D-04	-0.206247D-03	-0.375114D-04	0.515462D-04
29	0.958097D-05	-0.238939D-04	-0.252028D-04	-0.784363D-04	0.282842D-04
30	-0.168807D-03	0.559584D-04	0.104499D-03	0.317117D-04	-0.300957D-03
31	0.801494D-04	-0.186281D-03	-0.155843D-04	-0.183052D-04	0.401835D-04
32	0.217295D-04	-0.449511D-04	-0.836521D-04	-0.752881D-04	0.166243D-03
33	-0.190549D-04	0.252747D-04	0.296273D-04	0.414325D-04	-0.418950D-04
34	-0.180987D-03	0.726688D-04	-0.491021D-04	0.495274D-04	-0.128720D-03
35	-0.124961D-05	0.888216D-04	0.139394D-04	-0.458569D-05	-0.139311D-03
36	0.218080D-04	-0.705743D-04	-0.612853D-04	-0.437136D-05	-0.494727D-04

37	-0.144672D-04	0.264842D-04	-0.783345D-04	-0.421360D-04	0.760554D-04
38	0.161700D-04	0.178827D-04	0.432677D-04	0.208501D-04	0.277373D-06
39	0.133770D-03	-0.733977D-04	-0.117310D-05	0.314392D-05	0.207167D-03
40	0.272889D-04	-0.113423D-03	-0.627979D-04	-0.312309D-04	0.122103D-03
41	0.163444D-04	0.155857D-05	-0.295452D-04	0.555567D-04	-0.548516D-04
42	0.218683D-04	-0.109534D-04	-0.113122D-04	-0.163581D-04	0.112944D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650046D-03				
27	0.437850D-03	0.241832D-02			
28	-0.322770D-04	-0.687719D-04	0.685993D-03		
29	-0.368670D-04	-0.517826D-04	0.112366D-03	0.287873D-03	
30	0.843182D-04	0.150306D-03	-0.120970D-03	-0.785328D-04	0.112447D-02
31	-0.185741D-03	-0.123269D-03	0.743878D-04	0.730109D-04	-0.167907D-03
32	-0.234920D-03	-0.575831D-03	0.152325D-03	0.921067D-04	-0.231411D-03
33	0.832866D-04	0.153507D-03	-0.160477D-03	-0.131476D-03	0.271612D-03
34	0.518881D-04	-0.570694D-04	0.192098D-04	-0.297987D-07	0.437545D-04
35	0.844625D-04	-0.385763D-04	-0.282547D-04	0.186329D-04	0.598705D-04
36	0.384875D-04	0.110498D-03	0.363933D-04	-0.541126D-05	-0.759758D-04
37	0.291804D-04	-0.147780D-03	-0.708912D-05	0.481436D-05	-0.417529D-04
38	-0.353071D-04	0.569265D-05	-0.490868D-04	-0.634277D-05	0.759861D-04
39	0.491037D-04	-0.230610D-03	0.429315D-04	-0.521345D-04	-0.613665D-04
40	-0.291227D-05	-0.453603D-04	0.935258D-04	0.396130D-04	-0.117841D-03
41	0.118484D-03	0.195958D-03	0.467587D-04	0.466091D-04	-0.816442D-04
42	-0.194802D-04	-0.115807D-03	-0.333671D-04	0.384532D-05	0.307074D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597770D-03				
32	0.241959D-03	0.115792D-02			
33	-0.349978D-03	-0.537371D-03	0.195425D-02		
34	0.482361D-04	-0.156242D-03	0.487800D-04	0.154590D-01	
35	-0.375879D-04	-0.657911D-04	0.384197D-04	0.124979D-02	0.114319D-01
36	0.759492D-05	-0.532554D-04	-0.704500D-04	-0.845122D-04	-0.100524D-03
37	0.471676D-04	-0.169300D-04	0.403346D-04	0.428707D-04	-0.501368D-04
38	0.556742D-05	-0.303519D-04	0.441317D-04	-0.677373D-04	0.347356D-04
39	0.187353D-04	0.263658D-04	0.194137D-03	0.884397D-04	-0.286378D-03
40	0.593893D-05	0.102111D-03	0.176158D-04	0.438495D-03	0.543735D-04
41	0.139704D-03	-0.516878D-04	-0.137694D-03	-0.432149D-03	0.129264D-03

42 0.404685D-04 0.257417D-04 -0.223679D-04 0.138153D-03 -0.153461D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.464193D-02				
37	-0.433984D-03	0.600486D-02			
38	-0.742823D-03	-0.466697D-03	0.171045D-02		
39	0.861703D-04	0.326139D-03	-0.226873D-03	0.285797D-01	
40	0.166788D-03	0.851066D-04	-0.122025D-03	0.254690D-02	0.101551D-01
41	0.122969D-03	0.390245D-03	-0.164745D-03	0.134036D-02	0.219853D-02
42	0.323778D-04	0.478914D-02	-0.522855D-03	0.561732D-03	-0.225112D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.135154D-01	
42	0.250974D-03	0.742171D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.016	-0.039	-0.010	0.015
8	0.030	-0.005	0.024	-0.008	-0.021
9	0.018	0.020	0.030	0.022	0.049
10	-0.008	0.031	0.017	0.010	0.020
11	0.035	0.016	-0.015	-0.013	0.012
12	0.000	0.019	-0.011	0.011	-0.066
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.001	-0.021	0.007	0.013
19	0.021	0.054	0.023	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005
34	-0.005	-0.014	0.006	0.049	0.008
35	0.012	0.001	-0.024	-0.012	0.003
36	-0.020	-0.010	0.022	-0.006	0.000
37	-0.010	0.024	-0.013	0.020	0.040
38	0.016	0.014	0.014	0.066	-0.003
39	0.006	0.024	-0.030	0.001	0.003
40	-0.001	-0.002	-0.027	-0.002	0.019
41	-0.023	-0.020	-0.010	-0.009	0.050
42	0.009	0.022	0.001	0.034	0.055

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.003	-0.119	1.000		
9	0.005	0.045	0.128	1.000	
10	-0.002	0.005	-0.035	0.067	1.000
11	-0.016	-0.136	-0.029	0.027	-0.124
12	0.015	-0.007	0.101	-0.105	0.125
13	-0.018	0.050	0.004	0.008	-0.011
14	0.039	0.035	-0.028	0.008	0.028
15	0.017	-0.012	-0.011	0.029	0.045
16	-0.025	0.002	0.001	0.010	0.003
17	-0.035	0.002	-0.015	-0.011	0.005
18	-0.029	0.022	-0.013	-0.012	0.012
19	0.020	-0.014	-0.004	0.002	-0.021
20	0.008	-0.014	0.049	0.013	-0.012
21	0.006	0.004	-0.058	-0.029	0.006

22	-0.043	0.012	0.023	-0.002	-0.016
23	-0.005	-0.008	0.004	-0.014	-0.019
24	-0.006	0.013	-0.014	0.031	0.014
25	-0.020	0.016	-0.041	-0.016	-0.024
26	-0.003	0.020	0.038	0.045	0.002
27	-0.009	0.046	0.014	0.031	0.025
28	0.033	-0.014	-0.031	0.031	0.031
29	-0.009	0.022	-0.030	0.006	-0.018
30	-0.005	0.002	0.036	0.003	0.043
31	0.004	-0.010	-0.049	-0.024	0.006
32	-0.006	0.013	-0.042	-0.029	0.001
33	0.030	0.025	0.028	0.006	0.008
34	-0.027	0.008	-0.028	-0.061	-0.006
35	-0.025	0.022	-0.009	-0.025	-0.007
36	0.004	0.008	-0.015	-0.045	-0.017
37	0.001	-0.048	-0.003	-0.076	0.054
38	0.030	0.039	0.071	0.110	0.038
39	-0.020	-0.001	0.020	0.004	-0.021
40	-0.043	0.015	0.034	-0.011	-0.029
41	-0.027	-0.004	0.000	-0.014	-0.011
42	-0.003	-0.078	-0.113	-0.031	-0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.177	1.000			
13	-0.003	-0.015	1.000		
14	0.017	0.045	0.334	1.000	
15	-0.009	0.006	0.062	0.327	1.000
16	0.008	-0.032	-0.185	-0.175	-0.084
17	0.054	-0.024	-0.092	-0.142	-0.200
18	-0.025	0.045	0.023	0.016	-0.011
19	-0.024	0.009	0.115	0.105	0.023
20	-0.059	-0.015	0.029	0.053	0.207
21	0.029	0.011	-0.025	-0.014	-0.026
22	0.007	0.007	0.014	-0.032	0.026
23	0.012	0.037	0.207	0.103	0.017
24	-0.031	0.016	0.056	0.145	0.140
25	0.026	-0.021	-0.021	-0.067	-0.008
26	-0.001	0.014	0.009	0.004	0.035
27	0.022	0.041	0.026	-0.014	-0.023
28	-0.011	-0.017	-0.109	-0.131	-0.041

29	0.051	0.031	-0.025	-0.083	-0.160
30	-0.001	-0.003	0.076	0.055	0.023
31	0.000	0.001	-0.015	-0.020	-0.034
32	-0.007	0.014	0.008	-0.036	-0.001
33	0.000	0.001	0.026	0.009	0.002
34	-0.001	0.001	0.000	0.006	0.026
35	-0.005	0.037	-0.014	-0.033	-0.042
36	-0.073	-0.010	-0.003	0.005	0.044
37	-0.027	0.007	-0.052	-0.041	-0.023
38	0.060	0.031	0.065	0.075	0.024
39	-0.006	-0.007	0.026	0.058	0.049
40	-0.044	-0.020	0.035	0.026	0.002
41	-0.023	0.008	-0.019	-0.018	0.009
42	-0.041	0.018	-0.020	-0.043	-0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.029
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.051	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.025	-0.050	0.042	0.032	0.002
35	0.020	0.035	0.012	0.013	-0.041
36	0.039	0.051	-0.019	-0.013	0.000
37	0.014	0.014	-0.003	-0.009	0.038
38	-0.027	-0.014	0.051	0.006	0.010
39	-0.025	-0.050	0.007	-0.011	-0.036
40	-0.008	-0.004	-0.023	0.010	0.008

41	0.012	-0.002	-0.042	-0.034	-0.022
42	0.008	0.021	-0.018	0.021	0.037

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.017	0.022	0.025	0.051	-0.026
34	-0.056	0.023	-0.015	0.022	-0.029
35	0.000	0.033	0.005	-0.002	-0.036
36	0.012	-0.041	-0.033	-0.003	-0.020
37	-0.007	0.013	-0.037	-0.030	0.027
38	0.015	0.017	0.039	0.027	0.000
39	0.030	-0.017	0.000	0.001	0.034
40	0.010	-0.044	-0.023	-0.017	0.034
41	0.005	0.001	-0.009	0.026	-0.013
42	0.010	-0.005	-0.005	-0.010	0.036

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.160	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.016	-0.009	0.006	0.000	0.010
35	0.031	-0.007	-0.010	0.010	0.017



36	0.022	0.033	0.020	-0.005	-0.033
37	0.015	-0.039	-0.003	0.004	-0.016
38	-0.033	0.003	-0.045	-0.009	0.055
39	0.011	-0.028	0.010	-0.018	-0.011
40	-0.001	-0.009	0.035	0.023	-0.035
41	0.040	0.034	0.015	0.024	-0.021
42	-0.009	-0.027	-0.015	0.003	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.016	-0.037	0.009	1.000	
35	-0.014	-0.018	0.008	0.094	1.000
36	0.005	-0.023	-0.023	-0.010	-0.014
37	0.025	-0.006	0.012	0.004	-0.006
38	0.006	-0.022	0.024	-0.013	0.008
39	0.005	0.005	0.026	0.004	-0.016
40	0.002	0.030	0.004	0.035	0.005
41	0.049	-0.013	-0.027	-0.030	0.010
42	0.019	0.009	-0.006	0.013	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.082	1.000			
38	-0.264	-0.146	1.000		
39	0.007	0.025	-0.032	1.000	
40	0.024	0.011	-0.029	0.150	1.000
41	0.016	0.043	-0.034	0.068	0.188
42	0.006	0.717	-0.147	0.039	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.025	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.013	38
300	1.005	13
400	1.001	22
500	1.007	38
600	1.005	38
700	1.002	6
800	1.005	42
900	1.005	42
1000	1.002	42

Effects of a single practice, health promotion

#### SUMMARY OF ANALYSIS

Number of groups	1
Number of observations	1113

Number of dependent variables	1
Number of independent variables	8
Number of continuous latent variables	0

#### Observed dependent variables

Binary and ordered categorical (ordinal)  
KESCAT16

#### Observed independent variables

PHY15	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
SINGLE	SINSQU				

#### Variables with special functions

Cluster variable      CID15

#### Within variables

PHY15	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
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#### Between variables

SINGLE	SINSQU
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#### Centering (GRANDMEAN)

PHY15	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
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Estimator	BAYES
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#### Specifications for Bayesian Estimation

Point estimate	MEDIAN
Number of Markov chain Monte Carlo (MCMC) chains	3
Random seed for the first chain	0
Starting value information	UNPERTURBED
Algorithm used for Markov chain Monte Carlo	GIBBS (PX1)
Convergence criterion	0.100D-01
Maximum number of iterations	50000

K-th iteration used for thinning  
Link

20  
PROBIT

Input data file(s)  
multicomponent for mplus cat.dat  
Input data format FREE

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

# COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

## PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

## UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

## UNIVARIATE SAMPLE STATISTICS

# UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SINSQU	1.118	2.775	0.000	1.72%	0.062	0.436	0.681
58.000	2.586	8.258	7.840	3.45%	0.792	1.823	
PHY15	0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15	0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15	0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15	0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15	0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15	0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

## MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.320 28.250

Posterior Predictive P-Value 0.523

MODEL RESULTS

		Posterior	One-Tailed	95% C.I.			
		Estimate	S.D.	P-Value	Lower 2.5%	Upper 2.5%	Significance
Within Level							
KESCAT16	ON						
PHY15		0.163	0.051	0.001	0.064	0.260	*
CHOICE15		0.028	0.039	0.241	-0.051	0.106	
BULLY15		0.101	0.059	0.037	-0.007	0.222	
DUTIES15		-0.074	0.043	0.035	-0.163	0.007	
PRESS15		-0.042	0.040	0.149	-0.119	0.038	
KES15		0.807	0.095	0.000	0.618	0.995	*
KES15	WITH						
PHY15		0.107	0.014	0.000	0.080	0.136	*
CHOICE15		-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15		0.073	0.013	0.000	0.045	0.100	*
PRESS15		0.063	0.018	0.001	0.029	0.101	*
DUTIES15		-0.073	0.017	0.000	-0.106	-0.041	*
PHY15	WITH						
CHOICE15		-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15		0.040	0.020	0.021	0.003	0.077	*
PRESS15		0.120	0.027	0.000	0.068	0.174	*
DUTIES15		-0.059	0.026	0.010	-0.112	-0.007	*
CHOICE15	WITH						
BULLY15		-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15		-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15		0.149	0.034	0.000	0.086	0.218	*
BULLY15	WITH						
PRESS15		0.201	0.026	0.000	0.152	0.253	*
DUTIES15		-0.176	0.024	0.000	-0.222	-0.130	*
PRESS15	WITH						
DUTIES15		-0.285	0.034	0.000	-0.357	-0.223	*
Means							
PHY15		0.000	0.025	0.496	-0.049	0.047	
KES15		0.001	0.017	0.491	-0.033	0.033	

CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.498	-0.065	0.066	
DUTIES15	0.001	0.030	0.480	-0.058	0.060	
Variances						
PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*
Between Level						
KESCAT16 ON						
SINGLE	-0.037	0.068	0.283	-0.166	0.107	
SINSQU	-0.142	0.054	0.006	-0.259	-0.042	*
SINGLE WITH						
SINSQU	1.004	0.258	0.000	0.562	1.608	*
Means						
SINGLE	0.232	0.136	0.044	-0.023	0.502	
SINSQU	1.121	0.213	0.000	0.702	1.553	*
Thresholds						
KESCAT16\$1	-0.616	0.071	0.000	-0.769	-0.485	*
Variances						
SINGLE	1.070	0.200	0.000	0.765	1.552	*
SINSQU	2.601	0.488	0.000	1.843	3.741	*
Residual Variances						
KESCAT16	0.025	0.028	0.000	0.001	0.107	*

#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%	Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.121	0.037	0.001	0.047	0.191	*
CHOICE15	0.027	0.037	0.241	-0.049	0.100	
BULLY15	0.069	0.040	0.037	-0.005	0.152	
DUTIES15	-0.066	0.038	0.035	-0.143	0.007	
PRESS15	-0.040	0.038	0.149	-0.112	0.037	
KES15	0.398	0.040	0.000	0.315	0.476	*

KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*

PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.128	-0.008	*

CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*

BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*

PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*

Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.498	-0.060	0.062	
DUTIES15	0.001	0.029	0.480	-0.057	0.060	

Variances

PHY15	1.000	0.000	0.000	1.000	1.000
KES15	1.000	0.000	0.000	1.000	1.000
CHOICE15	1.000	0.000	0.000	1.000	1.000
BULLY15	1.000	0.000	0.000	1.000	1.000
PRESS15	1.000	0.000	0.000	1.000	1.000
DUTIES15	1.000	0.000	0.000	1.000	1.000

#### Between Level

KESCAT16 ON						
SINGLE	-0.124	0.236	0.283	-0.606	0.327	
SINSQU	-0.754	0.197	0.006	-1.034	-0.274	*
SINGLE WITH						
SINSQU	0.604	0.084	0.000	0.410	0.738	*
Means						
SINGLE	0.226	0.130	0.044	-0.022	0.482	
SINSQU	0.700	0.146	0.000	0.407	0.985	*
Thresholds						
KESCAT16\$1	-1.975	0.510	0.000	-3.334	-1.320	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.265	0.169	0.000	0.020	0.643	*

#### R-SQUARE

#### Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.222	0.034	0.000	0.158	0.290

#### Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%

KESCAT16	0.735	0.169	0.000	0.357	0.980
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TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU	KESCAT16
_____	_____
0	

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____	_____
0	0	0	0	0	0

NU	PRESS15	DUTIES15
_____	_____	_____
0	0	

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
_____	_____	_____	_____	_____	_____
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
_____	_____	_____
KESCAT16	0	0

PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA		
	PRESS15	DUTIES15
PRESS15	<u>0</u>	<u>          </u>
DUTIES15	0	0

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

ALPHA		
	PRESS15	DUTIES15
	<u>5</u>	<u>6</u>

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
PHY15	0	0	0	0	0

KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA

	PRESS15	DUTIES15
KESCAT16	11	12
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI

	PRESS15	DUTIES15
PRESS15	27	
DUTIES15	32	33

PARAMETER SPECIFICATION FOR BETWEEN

TAU

KESCAT16

NU

KESCAT16	SINGLE	SINSQU
<hr/> 0	<hr/> 0	<hr/> 0

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 0	<hr/> 0	<hr/> 0
SINGLE	0	0	0
SINSQU	0	0	0

THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 0	<hr/>	<hr/>
SINGLE	0	0	
SINSQU	0	0	0

ALPHA

KESCAT16	SINGLE	SINSQU
<hr/> 0	<hr/> 34	<hr/> 35

BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 0	<hr/> 36	<hr/> 37
SINGLE	0	0	0
SINSQU	0	0	0

PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 38	<hr/>	<hr/>
SINGLE	0	39	

SINSQU	0	40	41
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STARTING VALUES FOR WITHIN

TAU
KESCAT16
<hr/>
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000

PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
	PRESS15	DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0.000	0.000	0.000	0.000	0.000

ALPHA		
	PRESS15	DUTIES15
	0.000	0.000

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000



DUTIES15	0.000	0.000	0.000	0.000	0.000
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BETA

PRESS15	DUTIES15
---------	----------

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
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KESCAT16	1.000				
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI

PRESS15	DUTIES15
---------	----------

PRESS15	0.580	
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU

KESCAT16

-0.352

NU

	KESCAT16	SINGLE	SINSQU
	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
	LAMBDA		
	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000
	THETA		
	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 0.000	<hr/>	<hr/>
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000
	ALPHA		
	KESCAT16	SINGLE	SINSQU
	<hr/> 0.000	<hr/> 0.416	<hr/> 0.916
	BETA		
	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000
	PSI		
	KESCAT16	SINGLE	SINSQU
KESCAT16	<hr/> 1.000	<hr/>	<hr/>
SINGLE	0.000	0.372	
SINSQU	0.000	0.000	0.654

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

# TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925328D-04	-0.649481D-04	0.111152D-02		
4	0.451920D-04	0.736482D-04	-0.136547D-03	0.544159D-03	
5	0.101054D-03	0.446007D-04	-0.215396D-03	0.177226D-03	0.108757D-02
6	-0.408422D-04	-0.473349D-04	0.976449D-04	-0.161968D-03	-0.253063D-03
7	-0.255429D-04	-0.133673D-04	-0.680705D-04	-0.141916D-04	0.291517D-04
8	0.688725D-04	-0.726713D-05	0.786642D-04	-0.187557D-04	-0.578616D-04
9	0.166708D-04	0.126414D-04	0.412979D-04	0.176668D-04	0.644440D-04
10	-0.885613D-05	0.309805D-04	0.316147D-04	0.168574D-04	0.406416D-04
11	0.343365D-04	0.973083D-05	-0.183197D-04	-0.142319D-04	0.137387D-04
12	-0.255758D-06	0.134614D-04	-0.164486D-04	0.998963D-05	-0.928647D-04
13	0.611679D-04	0.212382D-04	-0.183255D-04	0.520060D-06	0.322966D-04
14	-0.108310D-05	0.118210D-04	-0.293975D-05	-0.151709D-04	-0.196780D-04
15	0.585949D-05	0.141455D-05	0.195698D-04	-0.166341D-04	-0.974621D-05
16	-0.436394D-04	-0.212673D-04	0.228822D-05	0.728870D-05	-0.173917D-04
17	0.582347D-06	0.109646D-04	-0.789938D-05	0.176536D-06	0.138768D-04
18	-0.383353D-04	-0.125438D-05	-0.341306D-04	0.772010D-05	0.209667D-04
19	0.998216D-05	0.174781D-04	0.153314D-04	-0.703637D-05	-0.129159D-04
20	0.517626D-05	0.215800D-05	0.658267D-06	0.934006D-05	0.687382D-05
21	0.830169D-05	-0.828122D-05	0.110626D-04	0.130229D-05	-0.288335D-04
22	0.170049D-04	0.430797D-05	-0.562060D-05	0.192375D-04	0.568124D-04
23	0.254824D-04	0.125095D-04	0.829953D-05	-0.153215D-04	0.219651D-04
24	0.451708D-05	0.210907D-05	0.163399D-04	0.961576D-05	0.159458D-04
25	-0.283471D-05	-0.388487D-05	-0.173622D-04	0.186623D-04	-0.517379D-05
26	-0.326594D-05	-0.116853D-04	0.201742D-05	0.236907D-04	0.304933D-04
27	0.343217D-04	-0.448440D-05	-0.246156D-04	0.183945D-04	0.476337D-04
28	-0.949639D-05	-0.209528D-04	-0.878544D-05	-0.345260D-04	-0.194235D-04
29	-0.213042D-05	0.178065D-05	-0.109378D-04	-0.409307D-05	0.198141D-04
30	-0.609448D-05	-0.126438D-04	-0.170179D-04	0.102010D-04	0.467404D-04
31	-0.884059D-05	0.161239D-05	0.306249D-04	-0.184962D-04	-0.475558D-05
32	-0.429027D-04	0.404811D-05	0.729276D-04	-0.345042D-04	-0.114950D-04
33	-0.103121D-05	0.623727D-05	-0.419484D-04	0.265012D-04	-0.690813D-05
34	-0.214334D-04	-0.344157D-04	0.385111D-04	0.145778D-03	0.292108D-04
35	0.299394D-04	-0.261749D-04	-0.943320D-04	0.735409D-04	0.168578D-04
36	-0.736145D-04	-0.147018D-04	0.120930D-04	0.722122D-04	0.415527D-04

37	0.489710D-04	0.207257D-04	-0.107498D-04	-0.243667D-04	0.193509D-04
38	0.150921D-04	0.740498D-05	0.109317D-04	0.426112D-04	0.121875D-04
39	-0.125684D-04	0.425457D-04	-0.266906D-03	-0.210557D-04	0.171364D-03
40	-0.790989D-04	-0.298332D-04	-0.210805D-03	-0.280475D-04	0.383887D-03
41	-0.245458D-03	-0.131227D-03	-0.149496D-03	-0.574429D-04	0.812264D-03
42	0.716879D-04	0.229260D-04	0.173726D-04	0.319214D-04	0.101515D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.881816D-03				
7	-0.619391D-05	0.259770D-02			
8	-0.116351D-04	-0.591671D-03	0.900625D-02		
9	0.625854D-05	0.819034D-04	0.470997D-03	0.150905D-02	
10	-0.519320D-05	0.627137D-05	-0.184703D-03	0.168240D-03	0.353153D-02
11	-0.183470D-04	-0.274673D-03	-0.101512D-03	0.422968D-04	-0.306325D-03
12	0.178336D-04	-0.146966D-04	0.415840D-03	-0.183459D-03	0.318977D-03
13	-0.160880D-04	0.735323D-04	0.921214D-05	0.647052D-05	-0.196271D-04
14	0.167145D-04	0.254782D-04	-0.384612D-04	0.357503D-05	0.236142D-04
15	0.693620D-05	-0.798716D-05	-0.161413D-04	0.139656D-04	0.368194D-04
16	-0.201780D-04	0.369514D-05	0.205263D-05	0.121165D-04	0.227709D-05
17	-0.197678D-04	0.132629D-05	-0.252169D-04	-0.800035D-05	0.713316D-05
18	-0.428162D-04	0.510787D-04	-0.672719D-04	-0.235612D-04	0.370141D-04
19	0.116416D-04	-0.164650D-04	-0.967040D-05	-0.313607D-06	-0.254677D-04
20	0.330217D-05	-0.108928D-04	0.620813D-04	0.594053D-05	-0.105088D-04
21	0.472708D-05	0.627299D-05	-0.143493D-03	-0.294194D-04	0.100560D-04
22	-0.325374D-04	0.142160D-04	0.591825D-04	-0.277228D-05	-0.254301D-04
23	-0.409117D-05	-0.111874D-04	0.103618D-04	-0.189716D-04	-0.290843D-04
24	-0.331933D-05	0.110154D-04	-0.246163D-04	0.194575D-04	0.141562D-04
25	-0.215454D-04	0.298807D-04	-0.141175D-03	-0.219145D-04	-0.527400D-04
26	-0.225191D-05	0.261288D-04	0.909437D-04	0.426152D-04	0.353027D-05
27	-0.133093D-04	0.115046D-03	0.504343D-04	0.590139D-04	0.745013D-04
28	0.255275D-04	-0.157604D-04	-0.801040D-04	0.312598D-04	0.502620D-04
29	-0.447439D-05	0.208855D-04	-0.497548D-04	0.354240D-05	-0.177029D-04
30	-0.519250D-05	0.198724D-05	0.115689D-03	0.299824D-05	0.871654D-04
31	0.264085D-05	-0.121797D-04	-0.113306D-03	-0.208505D-04	0.882223D-05
32	-0.577627D-05	0.248203D-04	-0.135601D-03	-0.368124D-04	0.260190D-05
33	0.386770D-04	0.555925D-04	0.123891D-03	0.149736D-04	0.205564D-04
34	-0.114395D-03	0.511934D-04	-0.345704D-03	-0.339056D-03	-0.262236D-04
35	-0.204000D-03	0.246819D-03	-0.381100D-03	-0.429849D-03	-0.968463D-04
36	-0.189944D-04	0.359319D-04	0.206249D-03	0.345383D-04	-0.130347D-03
37	-0.820514D-05	-0.842900D-04	-0.271172D-03	-0.164573D-03	0.893484D-04
38	0.234045D-04	0.311285D-04	0.169164D-03	0.988152D-04	0.860842D-04

39	-0.277206D-03	0.727210D-04	0.504455D-03	-0.740506D-04	-0.407340D-03
40	-0.382962D-03	0.108318D-03	0.550034D-03	-0.158278D-03	-0.463091D-03
41	-0.408672D-03	-0.638412D-04	0.136215D-03	-0.220270D-03	-0.390691D-03
42	-0.237274D-04	-0.247728D-03	-0.115224D-02	-0.948265D-04	-0.161717D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.161519D-02				
12	0.307797D-03	0.183944D-02			
13	-0.361165D-05	-0.198764D-04	0.887205D-03		
14	0.989876D-05	0.276995D-04	0.144169D-03	0.209518D-03	
15	-0.396824D-05	0.304840D-05	0.245879D-04	0.632899D-04	0.178541D-03
16	0.102228D-04	-0.365714D-04	-0.152808D-03	-0.702353D-04	-0.312470D-04
17	0.425529D-04	-0.176155D-04	-0.515546D-04	-0.385911D-04	-0.503954D-04
18	-0.539133D-04	0.914706D-04	0.342647D-04	0.115839D-04	-0.743794D-05
19	-0.200009D-04	0.860784D-05	0.671974D-04	0.296053D-04	0.604126D-05
20	-0.307848D-04	-0.689131D-05	0.115477D-04	0.103501D-04	0.370348D-04
21	0.303113D-04	0.108726D-04	-0.192533D-04	-0.531227D-05	-0.923114D-05
22	0.215971D-05	0.676895D-05	0.109625D-04	-0.118799D-04	0.892167D-05
23	0.113233D-04	0.422184D-04	0.167272D-03	0.405004D-04	0.601664D-05
24	-0.239109D-04	0.123617D-04	0.305975D-04	0.384759D-04	0.344897D-04
25	0.354434D-04	-0.311542D-04	-0.228435D-04	-0.347958D-04	-0.407676D-05
26	0.521424D-06	0.190366D-04	0.649055D-05	0.160662D-05	0.119129D-04
27	0.448349D-04	0.850927D-04	0.386019D-04	-0.102879D-04	-0.152389D-04
28	-0.980393D-05	-0.182990D-04	-0.849114D-04	-0.497553D-04	-0.142745D-04
29	0.353283D-04	0.219497D-04	-0.126008D-04	-0.204259D-04	-0.363725D-04
30	-0.301107D-05	-0.531034D-05	0.759053D-04	0.268013D-04	0.103358D-04
31	0.153592D-05	0.128664D-05	-0.109999D-04	-0.695315D-05	-0.112221D-04
32	-0.115742D-04	0.193170D-04	0.795788D-05	-0.177107D-04	-0.682767D-06
33	-0.429155D-05	-0.610615D-06	0.344785D-04	0.562058D-05	0.132152D-05
34	-0.587420D-05	0.144171D-04	0.740292D-05	0.150644D-04	0.472207D-04
35	-0.932484D-04	0.280341D-03	-0.259325D-04	-0.641912D-04	-0.649374D-04
36	0.265214D-04	0.586970D-04	0.175052D-04	0.201675D-04	0.139846D-04
37	-0.438811D-04	-0.519885D-04	-0.782717D-04	-0.465561D-04	-0.736173D-05
38	0.442193D-04	0.278803D-04	0.497867D-04	0.289070D-04	0.117705D-04
39	-0.283241D-03	-0.117284D-03	0.206794D-03	0.144118D-03	0.997038D-04
40	-0.452388D-03	-0.129254D-03	0.126311D-03	0.314654D-04	0.298708D-04
41	-0.409910D-03	0.943464D-04	-0.264438D-03	-0.127287D-03	0.570365D-04
42	-0.774683D-04	0.287335D-05	-0.288998D-04	-0.558208D-04	-0.265756D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.769017D-03				
17	0.156216D-03	0.354734D-03			
18	-0.227029D-03	-0.189527D-03	0.243845D-02		
19	-0.865666D-04	-0.203816D-04	0.315603D-04	0.382755D-03	
20	-0.222524D-04	-0.469594D-04	-0.743931D-05	0.626884D-04	0.180149D-03
21	0.291363D-04	0.785507D-04	-0.291540D-03	-0.493601D-04	-0.695847D-04
22	-0.111580D-04	-0.191021D-04	0.504980D-04	0.403801D-04	0.785209D-04
23	-0.105870D-03	-0.310625D-04	0.595212D-04	0.140418D-03	0.267948D-04
24	-0.243696D-04	-0.662639D-04	0.113710D-04	0.237739D-04	0.630563D-04
25	0.126695D-03	0.658684D-04	-0.445629D-03	-0.690049D-06	-0.137556D-04
26	-0.290630D-05	-0.194997D-04	0.621504D-04	0.585869D-04	0.497036D-04
27	-0.682875D-05	-0.268320D-04	0.178461D-03	0.227373D-04	0.208915D-04
28	0.981677D-04	0.245355D-04	-0.701349D-04	-0.123474D-03	-0.325807D-04
29	0.251564D-04	0.505843D-04	0.573399D-05	-0.167887D-04	-0.546254D-04
30	-0.612111D-04	-0.710749D-04	0.278649D-03	0.387332D-04	0.125665D-04
31	0.720030D-05	0.232502D-04	-0.151926D-05	-0.352311D-04	-0.495666D-04
32	0.706975D-05	0.330647D-05	-0.325044D-04	-0.122133D-04	-0.576685D-05
33	-0.297609D-05	-0.142663D-04	-0.379592D-04	-0.518547D-07	0.177135D-04
34	0.904102D-04	-0.130142D-03	0.292740D-03	0.858042D-04	0.302605D-05
35	0.178666D-03	0.323284D-04	0.311304D-03	0.127247D-03	-0.974154D-04
36	0.538435D-04	0.528260D-04	-0.394736D-04	0.145434D-04	0.288737D-04
37	-0.947231D-05	-0.235611D-04	-0.458863D-07	-0.225719D-04	-0.993010D-05
38	-0.215672D-04	-0.174753D-05	0.513039D-04	-0.293024D-05	0.345118D-05
39	-0.856572D-04	-0.133336D-03	-0.164364D-03	-0.441164D-04	-0.732023D-04
40	0.208548D-04	-0.303298D-04	-0.462950D-03	-0.770448D-04	-0.291667D-04
41	0.149944D-03	-0.402108D-04	-0.954846D-03	-0.324404D-03	-0.138100D-03
42	-0.156192D-04	-0.533629D-05	-0.657986D-04	0.332253D-04	0.727925D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679783D-03				
22	-0.137496D-03	0.652640D-03			
23	-0.299975D-04	0.352033D-04	0.732811D-03		
24	-0.239360D-04	0.149382D-04	0.119171D-03	0.338082D-03	
25	0.221840D-03	-0.480752D-04	-0.103101D-03	-0.980636D-04	0.129235D-02
26	-0.139714D-03	0.196803D-03	0.696549D-04	0.830263D-04	-0.137394D-03
27	-0.645474D-04	0.875560D-04	0.222586D-03	0.134572D-03	-0.395085D-03
28	0.286512D-04	-0.259669D-04	-0.206222D-03	-0.374976D-04	0.515709D-04
29	0.957611D-05	-0.238827D-04	-0.251730D-04	-0.784337D-04	0.282870D-04
30	-0.168759D-03	0.558754D-04	0.104471D-03	0.316818D-04	-0.300882D-03

31	0.801398D-04	-0.186255D-03	-0.155295D-04	-0.182693D-04	0.401696D-04
32	0.216841D-04	-0.449302D-04	-0.835919D-04	-0.752409D-04	0.166230D-03
33	-0.190148D-04	0.252008D-04	0.295980D-04	0.414140D-04	-0.419061D-04
34	-0.203676D-03	0.829316D-04	-0.516856D-04	0.512601D-04	-0.135108D-03
35	-0.178736D-03	0.227479D-03	-0.201335D-04	0.334780D-04	-0.333041D-03
36	0.361855D-04	0.649433D-04	-0.705232D-04	0.266602D-04	0.426623D-04
37	-0.354374D-04	-0.415489D-04	-0.336397D-04	-0.343008D-04	-0.102564D-04
38	0.127259D-04	0.107495D-04	0.173700D-04	0.141233D-04	-0.297608D-05
39	0.136658D-03	-0.178071D-03	-0.770241D-04	-0.114775D-04	0.262102D-03
40	0.995239D-04	-0.204653D-03	-0.169789D-03	0.197241D-04	0.156062D-03
41	0.122725D-03	-0.186930D-04	-0.167461D-03	0.232266D-03	-0.183045D-03
42	0.688033D-05	-0.516622D-04	-0.178193D-05	-0.103204D-04	0.510382D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650048D-03				
27	0.437807D-03	0.241833D-02			
28	-0.322525D-04	-0.687632D-04	0.685977D-03		
29	-0.368310D-04	-0.517527D-04	0.112355D-03	0.287848D-03	
30	0.842327D-04	0.150275D-03	-0.120949D-03	-0.785321D-04	0.112432D-02
31	-0.185678D-03	-0.123239D-03	0.743177D-04	0.729537D-04	-0.167869D-03
32	-0.234862D-03	-0.575750D-03	0.152282D-03	0.920577D-04	-0.231405D-03
33	0.832309D-04	0.153418D-03	-0.160406D-03	-0.131352D-03	0.271584D-03
34	0.526726D-04	-0.551521D-04	0.171676D-04	-0.278749D-05	0.421190D-04
35	0.213205D-03	-0.226711D-04	-0.315160D-04	0.263019D-04	0.155534D-03
36	0.594425D-04	-0.593008D-04	0.254488D-04	-0.144527D-04	-0.902293D-04
37	-0.288030D-04	0.838439D-05	0.112368D-04	0.119139D-04	0.219931D-04
38	-0.190890D-04	0.181015D-04	-0.276966D-04	-0.503146D-05	0.572465D-04
39	0.888937D-04	-0.163387D-03	0.166643D-03	0.415177D-04	-0.203527D-03
40	0.132907D-03	0.144950D-03	0.252009D-03	0.144254D-03	-0.296826D-03
41	0.444813D-03	0.783628D-03	0.213334D-03	0.187129D-03	-0.312082D-03
42	-0.542903D-04	-0.119486D-04	-0.914659D-05	0.353858D-05	0.265753D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597717D-03				
32	0.241892D-03	0.115782D-02			
33	-0.349868D-03	-0.537257D-03	0.195412D-02		
34	0.434357D-04	-0.166398D-03	0.584449D-04	0.184123D-01	
35	-0.421780D-04	-0.279532D-03	0.119888D-03	0.163121D-01	0.454454D-01



36	-0.316127D-04	-0.214138D-04	-0.167737D-03	0.463821D-05	-0.169342D-03
37	0.127568D-04	0.170406D-04	0.125676D-03	0.101908D-04	0.194708D-03
38	0.488557D-05	-0.276763D-04	0.212682D-04	-0.614603D-04	-0.865071D-05
39	0.765115D-04	0.128774D-03	0.108465D-03	0.383263D-03	-0.294346D-04
40	0.201238D-03	0.145653D-03	-0.153099D-03	0.340114D-03	0.575065D-03
41	0.609299D-03	-0.187905D-03	-0.576172D-03	-0.171477D-02	-0.416452D-03
42	0.120574D-04	0.507947D-04	0.458142D-04	0.760331D-04	-0.322160D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.468062D-02				
37	-0.216209D-02	0.289309D-02			
38	0.124896D-03	-0.432417D-03	0.782329D-03		
39	0.538858D-04	0.227953D-03	-0.309842D-03	0.397905D-01	
40	-0.998528D-04	0.319779D-03	-0.367658D-03	0.377583D-01	0.667317D-01
41	-0.462565D-04	0.164829D-03	-0.588078D-03	0.382409D-01	0.915858D-01
42	-0.647350D-03	0.216631D-02	-0.478475D-03	0.386498D-03	0.126441D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.237920D+00	
42	-0.618711D-04	0.504416D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.020	-0.016	-0.040	-0.012	0.017
8	0.029	-0.005	0.025	-0.008	-0.018
9	0.017	0.020	0.032	0.019	0.050
10	-0.006	0.031	0.016	0.012	0.021
11	0.035	0.015	-0.014	-0.015	0.010
12	0.000	0.019	-0.012	0.010	-0.066
13	0.083	0.043	-0.018	0.001	0.033

14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020
20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.006	-0.014	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.057	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.006	-0.015	0.009	0.046	0.007
35	0.006	-0.007	-0.013	0.015	0.002
36	-0.044	-0.013	0.005	0.045	0.018
37	0.037	0.023	-0.006	-0.019	0.011
38	0.022	0.016	0.012	0.065	0.013
39	-0.003	0.013	-0.040	-0.005	0.026
40	-0.012	-0.007	-0.024	-0.005	0.045
41	-0.020	-0.016	-0.009	-0.005	0.050
42	0.041	0.019	0.007	0.019	0.043

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.004	-0.122	1.000		
9	0.005	0.041	0.128	1.000	
10	-0.003	0.002	-0.033	0.073	1.000
11	-0.015	-0.134	-0.027	0.027	-0.128
12	0.014	-0.007	0.102	-0.110	0.125
13	-0.018	0.048	0.003	0.006	-0.011
14	0.039	0.035	-0.028	0.006	0.027
15	0.017	-0.012	-0.013	0.027	0.046

16	-0.025	0.003	0.001	0.011	0.001
17	-0.035	0.001	-0.014	-0.011	0.006
18	-0.029	0.020	-0.014	-0.012	0.013
19	0.020	-0.017	-0.005	0.000	-0.022
20	0.008	-0.016	0.049	0.011	-0.013
21	0.006	0.005	-0.058	-0.029	0.006
22	-0.043	0.011	0.024	-0.003	-0.017
23	-0.005	-0.008	0.004	-0.018	-0.018
24	-0.006	0.012	-0.014	0.027	0.013
25	-0.020	0.016	-0.041	-0.016	-0.025
26	-0.003	0.020	0.038	0.043	0.002
27	-0.009	0.046	0.011	0.031	0.025
28	0.033	-0.012	-0.032	0.031	0.032
29	-0.009	0.024	-0.031	0.005	-0.018
30	-0.005	0.001	0.036	0.002	0.044
31	0.004	-0.010	-0.049	-0.022	0.006
32	-0.006	0.014	-0.042	-0.028	0.001
33	0.029	0.025	0.030	0.009	0.008
34	-0.028	0.007	-0.027	-0.064	-0.003
35	-0.032	0.023	-0.019	-0.052	-0.008
36	-0.009	0.010	0.032	0.013	-0.032
37	-0.005	-0.031	-0.053	-0.079	0.028
38	0.028	0.022	0.064	0.091	0.052
39	-0.047	0.007	0.027	-0.010	-0.034
40	-0.050	0.008	0.022	-0.016	-0.030
41	-0.028	-0.003	0.003	-0.012	-0.013
42	-0.011	-0.068	-0.171	-0.034	-0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.179	1.000			
13	-0.003	-0.016	1.000		
14	0.017	0.045	0.334	1.000	
15	-0.007	0.005	0.062	0.327	1.000
16	0.009	-0.031	-0.185	-0.175	-0.084
17	0.056	-0.022	-0.092	-0.142	-0.200
18	-0.027	0.043	0.023	0.016	-0.011
19	-0.025	0.010	0.115	0.105	0.023
20	-0.057	-0.012	0.029	0.053	0.207
21	0.029	0.010	-0.025	-0.014	-0.026
22	0.002	0.006	0.014	-0.032	0.026

23	0.010	0.036	0.207	0.103	0.017
24	-0.032	0.016	0.056	0.145	0.140
25	0.025	-0.020	-0.021	-0.067	-0.008
26	0.001	0.017	0.009	0.004	0.035
27	0.023	0.040	0.026	-0.014	-0.023
28	-0.009	-0.016	-0.109	-0.131	-0.041
29	0.052	0.030	-0.025	-0.083	-0.160
30	-0.002	-0.004	0.076	0.055	0.023
31	0.002	0.001	-0.015	-0.020	-0.034
32	-0.008	0.013	0.008	-0.036	-0.002
33	-0.002	0.000	0.026	0.009	0.002
34	-0.001	0.002	0.002	0.008	0.026
35	-0.011	0.031	-0.004	-0.021	-0.023
36	0.010	0.020	0.009	0.020	0.015
37	-0.020	-0.023	-0.049	-0.060	-0.010
38	0.039	0.023	0.060	0.071	0.031
39	-0.035	-0.014	0.035	0.050	0.037
40	-0.044	-0.012	0.016	0.008	0.009
41	-0.021	0.005	-0.018	-0.018	0.009
42	-0.027	0.001	-0.014	-0.054	-0.028

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.256
25	0.127	0.097	-0.251	-0.001	-0.029
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.044	0.032	0.002

35	0.030	0.008	0.030	0.031	-0.034
36	0.028	0.041	-0.012	0.011	0.031
37	-0.006	-0.023	0.000	-0.021	-0.014
38	-0.028	-0.003	0.037	-0.005	0.009
39	-0.015	-0.035	-0.017	-0.011	-0.027
40	0.003	-0.006	-0.036	-0.015	-0.008
41	0.011	-0.004	-0.040	-0.034	-0.021
42	-0.008	-0.004	-0.019	0.024	0.008

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.023	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.058	0.024	-0.014	0.021	-0.028
35	-0.032	0.042	-0.003	0.009	-0.043
36	0.020	0.037	-0.038	0.021	0.017
37	-0.025	-0.030	-0.023	-0.035	-0.005
38	0.017	0.015	0.023	0.027	-0.003
39	0.026	-0.035	-0.014	-0.003	0.037
40	0.015	-0.031	-0.024	0.004	0.017
41	0.010	-0.002	-0.013	0.026	-0.010
42	0.004	-0.028	-0.001	-0.008	0.020

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	

30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.015	-0.008	0.005	-0.001	0.009
35	0.039	-0.002	-0.006	0.007	0.022
36	0.034	-0.018	0.014	-0.012	-0.039
37	-0.021	0.003	0.008	0.013	0.012
38	-0.027	0.013	-0.038	-0.011	0.061
39	0.017	-0.017	0.032	0.012	-0.030
40	0.020	0.011	0.037	0.033	-0.034
41	0.036	0.033	0.017	0.023	-0.019
42	-0.030	-0.003	-0.005	0.003	0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.013	-0.036	0.010	1.000	
35	-0.008	-0.039	0.013	0.564	1.000
36	-0.019	-0.009	-0.055	0.000	-0.012
37	0.010	0.009	0.053	0.001	0.017
38	0.007	-0.029	0.017	-0.016	-0.001
39	0.016	0.019	0.012	0.014	-0.001
40	0.032	0.017	-0.013	0.010	0.010
41	0.051	-0.011	-0.027	-0.026	-0.004
42	0.007	0.021	0.015	0.008	-0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.588	1.000			
38	0.065	-0.287	1.000		
39	0.004	0.021	-0.056	1.000	
40	-0.006	0.023	-0.051	0.733	1.000
41	-0.001	0.006	-0.043	0.393	0.727
42	-0.133	0.567	-0.241	0.027	0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES		
	41	42
41	1.000	
42	-0.002	1.000

# TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.012	38
300	1.005	13
400	1.010	36
500	1.009	36
600	1.006	38
700	1.002	6
800	1.003	42
900	1.004	42
1000	1.002	42

Effects of a single practice, service promotion

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5



PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440

	58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
SINSQU		1.051	0.564	0.020	6.90%	0.144	0.203	0.858
	58.000	0.929	-1.325	2.496	12.07%	0.941	2.434	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.217 28.576

Posterior Predictive P-Value 0.529

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.161	0.051	0.001	0.062	0.258	*
CHOICE15	0.034	0.039	0.199	-0.044	0.113	
BULLY15	0.106	0.059	0.029	-0.003	0.227	
DUTIES15	-0.078	0.043	0.027	-0.167	0.004	
PRESS15	-0.046	0.040	0.129	-0.122	0.034	
KES15	0.803	0.094	0.000	0.618	0.990	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.498	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.110	0.058	0.027	-0.224	0.002	
SINSQU	-0.106	0.059	0.032	-0.231	0.005	

SINGLE WITH						
SINSQU	0.048	0.131	0.341	-0.207	0.314	

#### Means

SINGLE	0.222	0.132	0.048	-0.032	0.484	
SINSQU	1.062	0.133	0.000	0.785	1.319	*

#### Thresholds

KESCAT16\$1	-0.600	0.079	0.000	-0.772	-0.451	*
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#### Variances

SINGLE	1.010	0.190	0.000	0.716	1.481	*
SINSQU	0.945	0.177	0.000	0.665	1.349	*

#### Residual Variances

KESCAT16	0.024	0.032	0.000	0.001	0.122	*
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#### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.119	0.037	0.001	0.046	0.190	*
CHOICE15	0.033	0.037	0.199	-0.042	0.108	
BULLY15	0.072	0.040	0.029	-0.002	0.155	

DUTIES15	-0.070	0.038	0.027	-0.147	0.004	
PRESS15	-0.043	0.038	0.129	-0.115	0.033	
KES15	0.396	0.040	0.000	0.313	0.474	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.498	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	-0.481	0.226	0.027	-0.894	0.007	
SINSQU	-0.457	0.215	0.032	-0.821	0.025	
SINGLE WITH						
SINSQU	0.051	0.128	0.341	-0.209	0.302	
Means						
SINGLE	0.222	0.131	0.048	-0.029	0.480	
SINSQU	1.090	0.166	0.000	0.767	1.420	*
Thresholds						
KESCAT16\$1	-2.589	0.867	0.000	-4.880	-1.474	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.461	0.231	0.000	0.034	0.876	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.221	0.034	0.000	0.157	0.287

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.539	0.231	0.000	0.124	0.966

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0



	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u></u>	<u></u>	<u></u>

0	0	0
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# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

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0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

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0.000      

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0.000      

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0.000      

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0.000      

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0.000

NU  
PRESS15      DUTIES15  

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0.000      

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0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000

	DUTIES15
DUTIES15	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU
KESCAT16
<u>0.000</u>

SINGLE
<u>0.000</u>

SINSQU
<u>0.000</u>

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.415	0.874

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.351	
SINSQU	0.000	0.000	0.376

#### PRIORS FOR ALL PARAMETERS

Parameter	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606069D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925441D-04	-0.649379D-04	0.111151D-02		
4	0.451953D-04	0.736564D-04	-0.136555D-03	0.544170D-03	
5	0.101070D-03	0.445993D-04	-0.215360D-03	0.177240D-03	0.108757D-02
6	-0.408471D-04	-0.473414D-04	0.976548D-04	-0.161969D-03	-0.253058D-03
7	-0.276261D-04	-0.144232D-04	-0.663696D-04	-0.124318D-04	0.266537D-04
8	0.648454D-04	-0.919058D-05	0.802390D-04	-0.190667D-04	-0.624060D-04
9	0.138788D-04	0.124541D-04	0.397812D-04	0.160926D-04	0.599820D-04
10	-0.810783D-05	0.317531D-04	0.286605D-04	0.128927D-04	0.410738D-04
11	0.354106D-04	0.112841D-04	-0.178211D-04	-0.133007D-04	0.122838D-04
12	0.232555D-06	0.137269D-04	-0.158831D-04	0.113538D-04	-0.926660D-04
13	0.611673D-04	0.212394D-04	-0.183098D-04	0.526031D-06	0.322943D-04
14	-0.108359D-05	0.118218D-04	-0.294047D-05	-0.151687D-04	-0.196814D-04
15	0.585983D-05	0.141507D-05	0.195627D-04	-0.166395D-04	-0.974345D-05
16	-0.436249D-04	-0.212730D-04	0.228324D-05	0.727726D-05	-0.173600D-04
17	0.590434D-06	0.109634D-04	-0.791357D-05	0.170153D-06	0.139099D-04
18	-0.383380D-04	-0.127661D-05	-0.341932D-04	0.770839D-05	0.209430D-04
19	0.998401D-05	0.174715D-04	0.153568D-04	-0.703739D-05	-0.129159D-04
20	0.517727D-05	0.215508D-05	0.674102D-06	0.934127D-05	0.687671D-05
21	0.830499D-05	-0.827045D-05	0.110084D-04	0.129902D-05	-0.288724D-04
22	0.169978D-04	0.429597D-05	-0.561110D-05	0.192272D-04	0.568100D-04
23	0.254720D-04	0.125157D-04	0.831124D-05	-0.153131D-04	0.219496D-04
24	0.451475D-05	0.211493D-05	0.163459D-04	0.962634D-05	0.159376D-04
25	-0.284076D-05	-0.386450D-05	-0.173833D-04	0.186723D-04	-0.515032D-05
26	-0.326822D-05	-0.116910D-04	0.199229D-05	0.236804D-04	0.305092D-04
27	0.343540D-04	-0.451005D-05	-0.246597D-04	0.183796D-04	0.476318D-04
28	-0.949843D-05	-0.209437D-04	-0.880365D-05	-0.345170D-04	-0.194213D-04
29	-0.213087D-05	0.178610D-05	-0.109419D-04	-0.409157D-05	0.198103D-04
30	-0.609068D-05	-0.126486D-04	-0.169545D-04	0.101935D-04	0.467451D-04
31	-0.884935D-05	0.161319D-05	0.306391D-04	-0.185055D-04	-0.475602D-05
32	-0.429042D-04	0.405487D-05	0.729325D-04	-0.344954D-04	-0.114981D-04
33	-0.101524D-05	0.624617D-05	-0.420160D-04	0.265395D-04	-0.688761D-05
34	-0.175559D-04	-0.292514D-04	0.232797D-04	0.151460D-03	0.364936D-04
35	0.421559D-04	0.556720D-05	-0.112312D-03	-0.483813D-04	0.136057D-04
36	-0.209512D-04	-0.180733D-04	0.105661D-04	0.479068D-04	0.655976D-04
37	0.147466D-04	0.142950D-04	0.124869D-04	0.267354D-04	0.413572D-04
38	0.954537D-05	0.571928D-05	0.103921D-04	0.515759D-04	-0.189701D-05
39	0.288077D-04	0.780582D-04	-0.167080D-03	0.535210D-05	0.950208D-05
40	0.574173D-05	-0.137071D-05	-0.113520D-03	-0.342462D-05	0.542523D-04
41	-0.103460D-03	-0.581044D-04	-0.609218D-04	-0.405034D-04	0.292793D-03
42	0.462706D-04	0.138582D-04	0.460278D-04	0.832851D-04	0.131629D-03



	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881808D-03				
7	-0.499827D-05	0.258044D-02			
8	-0.114498D-04	-0.571847D-03	0.892006D-02		
9	0.753268D-05	0.814560D-04	0.467516D-03	0.151473D-02	
10	-0.334954D-05	0.331652D-05	-0.221544D-03	0.144150D-03	0.351979D-02
11	-0.171559D-04	-0.273149D-03	-0.111579D-03	0.409460D-04	-0.288036D-03
12	0.167870D-04	-0.163455D-04	0.408726D-03	-0.180044D-03	0.319630D-03
13	-0.160916D-04	0.747420D-04	0.108156D-04	0.770842D-05	-0.208523D-04
14	0.167127D-04	0.258613D-04	-0.398103D-04	0.407200D-05	0.233098D-04
15	0.693852D-05	-0.742256D-05	-0.156483D-04	0.129357D-04	0.359301D-04
16	-0.202035D-04	0.286937D-05	0.547834D-05	0.137090D-04	0.294885D-05
17	-0.197850D-04	0.936115D-06	-0.244797D-04	-0.688851D-05	0.342279D-05
18	-0.427741D-04	0.573963D-04	-0.587670D-04	-0.224856D-04	0.376865D-04
19	0.116388D-04	-0.166172D-04	-0.603612D-05	0.164493D-05	-0.270360D-04
20	0.329917D-05	-0.987396D-05	0.610103D-04	0.461232D-05	-0.111062D-04
21	0.473062D-05	0.591300D-05	-0.147310D-03	-0.294387D-04	0.120900D-04
22	-0.325389D-04	0.152897D-04	0.593153D-04	-0.198201D-05	-0.276877D-04
23	-0.408114D-05	-0.121386D-04	0.687942D-05	-0.155038D-04	-0.281248D-04
24	-0.330797D-05	0.116154D-04	-0.276937D-04	0.179226D-04	0.149855D-04
25	-0.215805D-04	0.280642D-04	-0.141256D-03	-0.163736D-04	-0.550472D-04
26	-0.223606D-05	0.283399D-04	0.910603D-04	0.403476D-04	-0.148176D-05
27	-0.133007D-04	0.115697D-03	0.572071D-04	0.606520D-04	0.743460D-04
28	0.255256D-04	-0.151042D-04	-0.811536D-04	0.303657D-04	0.508163D-04
29	-0.446472D-05	0.201414D-04	-0.489945D-04	0.374676D-05	-0.172279D-04
30	-0.522007D-05	0.364576D-05	0.117654D-03	0.976588D-06	0.848460D-04
31	0.262418D-05	-0.141123D-04	-0.114139D-03	-0.198392D-04	0.105153D-04
32	-0.577824D-05	0.241852D-04	-0.139192D-03	-0.372411D-04	0.704113D-05
33	0.387201D-04	0.570279D-04	0.124485D-03	0.107894D-04	0.220058D-04
34	-0.106140D-03	0.546784D-04	-0.362679D-03	-0.306604D-03	-0.363150D-04
35	-0.897217D-04	0.145570D-03	-0.785744D-04	-0.107010D-03	-0.393166D-04
36	-0.306026D-04	0.608378D-04	0.129009D-03	-0.255124D-04	-0.192662D-03
37	-0.374945D-04	-0.780365D-04	-0.163113D-03	-0.310554D-03	0.141165D-03
38	0.276864D-04	0.670535D-04	0.193526D-03	0.105538D-03	0.574693D-04
39	-0.884796D-04	-0.381066D-04	0.304615D-03	0.484577D-04	-0.212699D-03
40	-0.153325D-03	0.105831D-03	0.399549D-03	-0.321513D-04	-0.211331D-03
41	-0.140978D-03	-0.399154D-04	-0.415960D-04	-0.119649D-03	-0.921412D-04
42	-0.584964D-04	-0.246854D-03	-0.101315D-02	-0.231137D-03	-0.128922D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160403D-02				
12	0.299886D-03	0.184252D-02			
13	-0.462179D-05	-0.201995D-04	0.887202D-03		
14	0.101318D-04	0.277993D-04	0.144167D-03	0.209518D-03	
15	-0.399858D-05	0.293027D-05	0.245872D-04	0.632900D-04	0.178541D-03
16	0.898097D-05	-0.374826D-04	-0.152820D-03	-0.702336D-04	-0.312433D-04
17	0.400220D-04	-0.178420D-04	-0.515542D-04	-0.385968D-04	-0.503942D-04
18	-0.492336D-04	0.946432D-04	0.342741D-04	0.115848D-04	-0.742073D-05
19	-0.205065D-04	0.984675D-05	0.672028D-04	0.296098D-04	0.604277D-05
20	-0.320817D-04	-0.756275D-05	0.115498D-04	0.103505D-04	0.370382D-04
21	0.308496D-04	0.948780D-05	-0.192729D-04	-0.531723D-05	-0.922955D-05
22	0.698461D-06	0.639738D-05	0.109555D-04	-0.118879D-04	0.891416D-05
23	0.115797D-04	0.426576D-04	0.167284D-03	0.404968D-04	0.600952D-05
24	-0.248229D-04	0.111192D-04	0.306006D-04	0.384770D-04	0.344851D-04
25	0.349574D-04	-0.318468D-04	-0.228593D-04	-0.347978D-04	-0.409406D-05
26	-0.321263D-05	0.174380D-04	0.648927D-05	0.160606D-05	0.119072D-04
27	0.431830D-04	0.850793D-04	0.386265D-04	-0.102850D-04	-0.152330D-04
28	-0.103642D-04	-0.191809D-04	-0.849141D-04	-0.497608D-04	-0.142787D-04
29	0.356640D-04	0.220748D-04	-0.126029D-04	-0.204239D-04	-0.363765D-04
30	-0.615071D-06	-0.202419D-05	0.759428D-04	0.268173D-04	0.103399D-04
31	0.351653D-05	0.255687D-05	-0.109807D-04	-0.694897D-05	-0.112135D-04
32	-0.757511D-05	0.204756D-04	0.796336D-05	-0.177035D-04	-0.674493D-06
33	-0.924936D-06	-0.146201D-05	0.344660D-04	0.562637D-05	0.132369D-05
34	-0.224807D-05	-0.680672D-06	-0.356516D-06	0.113148D-04	0.465321D-04
35	-0.414269D-04	0.205927D-03	-0.604328D-04	-0.666314D-04	-0.778337D-04
36	-0.855481D-04	0.559560D-04	-0.713909D-05	-0.286001D-05	0.114553D-04
37	0.101999D-03	-0.178916D-04	-0.858223D-04	-0.279657D-04	0.882261D-05
38	0.711710D-04	0.451304D-04	0.622871D-04	0.370954D-04	0.131067D-04
39	-0.596404D-05	-0.336208D-04	0.126231D-03	0.152859D-03	0.123453D-03
40	-0.213192D-03	-0.114358D-03	0.143002D-03	0.540297D-04	0.879458D-06
41	-0.168453D-03	0.416740D-04	-0.101789D-03	-0.444649D-04	0.215227D-04
42	0.242549D-04	0.447674D-04	-0.410651D-04	-0.411210D-04	-0.128376D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769009D-03				
17	0.156206D-03	0.354715D-03			
18	-0.226983D-03	-0.189474D-03	0.243861D-02		
19	-0.865750D-04	-0.203720D-04	0.315483D-04	0.382766D-03	

20	-0.222617D-04	-0.469555D-04	-0.744959D-05	0.626882D-04	0.180151D-03
21	0.291372D-04	0.785494D-04	-0.291624D-03	-0.493439D-04	-0.695798D-04
22	-0.111506D-04	-0.190924D-04	0.504750D-04	0.403835D-04	0.785355D-04
23	-0.105869D-03	-0.310395D-04	0.594717D-04	0.140419D-03	0.267932D-04
24	-0.243675D-04	-0.662455D-04	0.113330D-04	0.237727D-04	0.630532D-04
25	0.126729D-03	0.658831D-04	-0.445798D-03	-0.691381D-06	-0.137540D-04
26	-0.290070D-05	-0.195056D-04	0.621405D-04	0.585844D-04	0.497015D-04
27	-0.684977D-05	-0.268426D-04	0.178498D-03	0.227394D-04	0.209038D-04
28	0.981510D-04	0.245187D-04	-0.701040D-04	-0.123490D-03	-0.325885D-04
29	0.251614D-04	0.505809D-04	0.577133D-05	-0.167932D-04	-0.546317D-04
30	-0.612736D-04	-0.710846D-04	0.278643D-03	0.387113D-04	0.125683D-04
31	0.720273D-05	0.232427D-04	-0.156705D-05	-0.352291D-04	-0.495724D-04
32	0.706436D-05	0.329128D-05	-0.324998D-04	-0.122126D-04	-0.576734D-05
33	-0.298211D-05	-0.142366D-04	-0.379896D-04	-0.477129D-07	0.177233D-04
34	0.920456D-04	-0.122375D-03	0.267156D-03	0.831813D-04	0.268950D-05
35	0.651579D-04	0.948610D-04	0.599245D-04	0.233233D-04	-0.731947D-04
36	0.356059D-04	0.601155D-04	-0.640618D-04	0.870875D-07	0.259763D-04
37	-0.187743D-04	-0.330009D-04	-0.371838D-04	-0.285495D-04	0.192146D-04
38	-0.271824D-04	-0.685066D-05	0.723644D-04	-0.497074D-05	0.481353D-05
39	-0.132730D-03	-0.182100D-03	0.869610D-04	-0.475748D-04	-0.958174D-04
40	-0.353517D-04	-0.706442D-05	-0.123835D-03	0.356318D-04	0.190854D-04
41	0.602330D-04	-0.761690D-05	-0.371596D-03	-0.119468D-03	-0.529822D-04
42	-0.270475D-04	-0.635448D-05	-0.119115D-03	0.225944D-04	0.342253D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679764D-03				
22	-0.137486D-03	0.652639D-03			
23	-0.299625D-04	0.352177D-04	0.732796D-03		
24	-0.239233D-04	0.149463D-04	0.119157D-03	0.338063D-03	
25	0.221855D-03	-0.480678D-04	-0.103069D-03	-0.980230D-04	0.129232D-02
26	-0.139738D-03	0.196818D-03	0.696398D-04	0.830241D-04	-0.137422D-03
27	-0.645542D-04	0.875199D-04	0.222549D-03	0.134563D-03	-0.395007D-03
28	0.286446D-04	-0.259945D-04	-0.206208D-03	-0.374942D-04	0.515156D-04
29	0.956625D-05	-0.238958D-04	-0.251797D-04	-0.784340D-04	0.282733D-04
30	-0.168737D-03	0.559163D-04	0.104458D-03	0.317032D-04	-0.300904D-03
31	0.801286D-04	-0.186281D-03	-0.155450D-04	-0.182888D-04	0.402079D-04
32	0.217145D-04	-0.449537D-04	-0.835936D-04	-0.752595D-04	0.166207D-03
33	-0.189811D-04	0.252740D-04	0.296112D-04	0.414211D-04	-0.419246D-04
34	-0.191270D-03	0.765303D-04	-0.524613D-04	0.527245D-04	-0.137491D-03
35	0.179039D-04	0.101855D-03	0.217287D-04	-0.914729D-05	-0.163073D-03
36	0.431189D-05	0.330345D-04	-0.708022D-04	0.132960D-04	-0.180281D-04

37	-0.145380D-04	-0.153267D-04	-0.569725D-04	-0.220630D-05	-0.395580D-04
38	0.168121D-04	0.139642D-04	0.198169D-04	0.969898D-05	0.708571D-08
39	0.148977D-03	-0.594790D-04	0.100463D-04	0.116707D-04	0.210104D-03
40	0.308076D-04	-0.149270D-03	-0.769848D-04	-0.485127D-04	0.166908D-03
41	0.228806D-04	0.429334D-05	-0.427764D-04	0.844925D-04	-0.859018D-04
42	0.201763D-04	-0.318340D-04	-0.201234D-04	0.165504D-04	0.971937D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650059D-03				
27	0.437842D-03	0.241821D-02			
28	-0.322583D-04	-0.687059D-04	0.686006D-03		
29	-0.368391D-04	-0.517551D-04	0.112366D-03	0.287857D-03	
30	0.842342D-04	0.150265D-03	-0.120936D-03	-0.785251D-04	0.112427D-02
31	-0.185709D-03	-0.123261D-03	0.743614D-04	0.729813D-04	-0.167915D-03
32	-0.234886D-03	-0.575760D-03	0.152293D-03	0.920626D-04	-0.231388D-03
33	0.832207D-04	0.153413D-03	-0.160471D-03	-0.131418D-03	0.271635D-03
34	0.561684D-04	-0.597230D-04	0.209956D-04	0.218678D-06	0.474998D-04
35	0.978957D-04	-0.535595D-04	-0.367615D-04	0.232191D-04	0.695937D-04
36	0.673437D-04	-0.237495D-04	0.646196D-05	-0.121848D-04	-0.386478D-04
37	0.212673D-04	-0.412219D-04	0.378963D-04	0.116311D-04	-0.599999D-04
38	-0.252940D-04	-0.114318D-04	-0.316600D-04	-0.349916D-05	0.586566D-04
39	0.554987D-04	-0.247303D-03	0.284635D-04	-0.703996D-04	-0.443097D-04
40	-0.173276D-04	-0.818479D-04	0.114963D-03	0.450630D-04	-0.146890D-03
41	0.183192D-03	0.299633D-03	0.718941D-04	0.722267D-04	-0.124658D-03
42	0.228578D-05	-0.522198D-04	0.139769D-04	0.401389D-05	-0.457850D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597750D-03				
32	0.241949D-03	0.115785D-02			
33	-0.349946D-03	-0.537314D-03	0.195428D-02		
34	0.523575D-04	-0.166812D-03	0.510301D-04	0.173126D-01	
35	-0.481721D-04	-0.645467D-04	0.419926D-04	0.259701D-03	0.175588D-01
36	-0.502859D-04	-0.307036D-04	-0.735484D-04	-0.127325D-03	-0.912354D-04
37	-0.374852D-05	0.173416D-04	0.786096D-04	0.904193D-04	0.191663D-03
38	-0.256639D-05	-0.185752D-04	0.298010D-04	-0.415489D-04	0.132364D-04
39	0.229111D-04	0.451568D-05	0.214908D-03	0.162779D-04	-0.398328D-03
40	-0.108547D-04	0.138284D-03	0.411757D-04	0.668006D-03	0.276587D-04
41	0.211954D-03	-0.789208D-04	-0.209412D-03	-0.712065D-03	0.282525D-03

42 -0.141681D-04 0.439451D-04 0.184643D-04 0.158787D-03 -0.307147D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.331293D-02				
37	-0.278903D-03	0.344813D-02			
38	-0.255190D-03	-0.330592D-03	0.100748D-02		
39	0.232775D-03	-0.203621D-03	-0.173992D-03	0.362333D-01	
40	0.606436D-04	-0.104625D-03	-0.157010D-03	0.705735D-03	0.171187D-01
41	0.404718D-04	0.772676D-03	-0.234191D-03	0.182620D-02	0.172013D-02
42	0.845393D-03	0.311876D-02	-0.439175D-03	0.213505D-03	-0.166671D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.313935D-01	
42	0.706480D-03	0.630377D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.022	-0.017	-0.039	-0.010	0.016
8	0.028	-0.006	0.025	-0.009	-0.020
9	0.014	0.019	0.031	0.018	0.047
10	-0.006	0.032	0.014	0.009	0.021
11	0.036	0.017	-0.013	-0.014	0.009
12	0.000	0.019	-0.011	0.011	-0.065
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020

20	0.016	0.010	0.002	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.006	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005
34	-0.005	-0.013	0.005	0.049	0.008
35	0.013	0.003	-0.025	-0.016	0.003
36	-0.015	-0.019	0.006	0.036	0.035
37	0.010	0.015	0.006	0.020	0.021
38	0.012	0.011	0.010	0.070	-0.002
39	0.006	0.025	-0.026	0.001	0.002
40	0.002	-0.001	-0.026	-0.001	0.013
41	-0.024	-0.020	-0.010	-0.010	0.050
42	0.024	0.010	0.017	0.045	0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.003	1.000			
8	-0.004	-0.119	1.000		
9	0.007	0.041	0.127	1.000	
10	-0.002	0.001	-0.040	0.062	1.000
11	-0.014	-0.134	-0.029	0.026	-0.121
12	0.013	-0.007	0.101	-0.108	0.126
13	-0.018	0.049	0.004	0.007	-0.012
14	0.039	0.035	-0.029	0.007	0.027
15	0.017	-0.011	-0.012	0.025	0.045
16	-0.025	0.002	0.002	0.013	0.002
17	-0.035	0.001	-0.014	-0.009	0.003
18	-0.029	0.023	-0.013	-0.012	0.013
19	0.020	-0.017	-0.003	0.002	-0.023
20	0.008	-0.014	0.048	0.009	-0.014
21	0.006	0.004	-0.060	-0.029	0.008

22	-0.043	0.012	0.025	-0.002	-0.018
23	-0.005	-0.009	0.003	-0.015	-0.018
24	-0.006	0.012	-0.016	0.025	0.014
25	-0.020	0.015	-0.042	-0.012	-0.026
26	-0.003	0.022	0.038	0.041	-0.001
27	-0.009	0.046	0.012	0.032	0.025
28	0.033	-0.011	-0.033	0.030	0.033
29	-0.009	0.023	-0.031	0.006	-0.017
30	-0.005	0.002	0.037	0.001	0.043
31	0.004	-0.011	-0.049	-0.021	0.007
32	-0.006	0.014	-0.043	-0.028	0.003
33	0.029	0.025	0.030	0.006	0.008
34	-0.027	0.008	-0.029	-0.060	-0.005
35	-0.023	0.022	-0.006	-0.021	-0.005
36	-0.018	0.021	0.024	-0.011	-0.056
37	-0.022	-0.026	-0.029	-0.136	0.041
38	0.029	0.042	0.065	0.085	0.031
39	-0.016	-0.004	0.017	0.007	-0.019
40	-0.039	0.016	0.032	-0.006	-0.027
41	-0.027	-0.004	-0.002	-0.017	-0.009
42	-0.025	-0.061	-0.135	-0.075	-0.027

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.174	1.000			
13	-0.004	-0.016	1.000		
14	0.017	0.045	0.334	1.000	
15	-0.007	0.005	0.062	0.327	1.000
16	0.008	-0.031	-0.185	-0.175	-0.084
17	0.053	-0.022	-0.092	-0.142	-0.200
18	-0.025	0.045	0.023	0.016	-0.011
19	-0.026	0.012	0.115	0.105	0.023
20	-0.060	-0.013	0.029	0.053	0.207
21	0.030	0.008	-0.025	-0.014	-0.026
22	0.001	0.006	0.014	-0.032	0.026
23	0.011	0.037	0.207	0.103	0.017
24	-0.034	0.014	0.056	0.145	0.140
25	0.024	-0.021	-0.021	-0.067	-0.009
26	-0.003	0.016	0.009	0.004	0.035
27	0.022	0.040	0.026	-0.014	-0.023
28	-0.010	-0.017	-0.109	-0.131	-0.041

29	0.052	0.030	-0.025	-0.083	-0.160
30	0.000	-0.001	0.076	0.055	0.023
31	0.004	0.002	-0.015	-0.020	-0.034
32	-0.006	0.014	0.008	-0.036	-0.001
33	-0.001	-0.001	0.026	0.009	0.002
34	0.000	0.000	0.000	0.006	0.026
35	-0.008	0.036	-0.015	-0.035	-0.044
36	-0.037	0.023	-0.004	-0.003	0.015
37	0.043	-0.007	-0.049	-0.033	0.011
38	0.056	0.033	0.066	0.081	0.031
39	-0.001	-0.004	0.022	0.055	0.049
40	-0.041	-0.020	0.037	0.029	0.001
41	-0.024	0.005	-0.019	-0.017	0.009
42	0.008	0.013	-0.017	-0.036	-0.012

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.227	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.044	0.265	0.074
24	-0.048	-0.191	0.012	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.029
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.025	-0.049	0.041	0.032	0.002
35	0.018	0.038	0.009	0.009	-0.041
36	0.022	0.055	-0.023	0.000	0.034
37	-0.012	-0.030	-0.013	-0.025	0.024
38	-0.031	-0.011	0.046	-0.008	0.011
39	-0.025	-0.051	0.009	-0.013	-0.038
40	-0.010	-0.003	-0.019	0.014	0.011



41	0.012	-0.002	-0.042	-0.034	-0.022
42	-0.012	-0.004	-0.030	0.015	0.032

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.042	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.023	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.056	0.023	-0.015	0.022	-0.029
35	0.005	0.030	0.006	-0.004	-0.034
36	0.003	0.022	-0.045	0.013	-0.009
37	-0.009	-0.010	-0.036	-0.002	-0.019
38	0.020	0.017	0.023	0.017	0.000
39	0.030	-0.012	0.002	0.003	0.031
40	0.009	-0.045	-0.022	-0.020	0.035
41	0.005	0.001	-0.009	0.026	-0.013
42	0.010	-0.016	-0.009	0.011	0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.017	-0.009	0.006	0.000	0.011
35	0.029	-0.008	-0.011	0.010	0.016

36	0.046	-0.008	0.004	-0.012	-0.020
37	0.014	-0.014	0.025	0.012	-0.030
38	-0.031	-0.007	-0.038	-0.006	0.055
39	0.011	-0.026	0.006	-0.022	-0.007
40	-0.005	-0.013	0.034	0.020	-0.033
41	0.041	0.034	0.015	0.024	-0.021
42	0.001	-0.013	0.007	0.003	-0.017

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.016	-0.037	0.009	1.000	
35	-0.015	-0.014	0.007	0.015	1.000
36	-0.036	-0.016	-0.029	-0.017	-0.012
37	-0.003	0.009	0.030	0.012	0.025
38	-0.003	-0.017	0.021	-0.010	0.003
39	0.005	0.001	0.026	0.001	-0.016
40	-0.003	0.031	0.007	0.039	0.002
41	0.049	-0.013	-0.027	-0.031	0.012
42	-0.007	0.016	0.005	0.015	-0.003

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.083	1.000			
38	-0.140	-0.177	1.000		
39	0.021	-0.018	-0.029	1.000	
40	0.008	-0.014	-0.038	0.028	1.000
41	0.004	0.074	-0.042	0.054	0.074
42	0.185	0.669	-0.174	0.014	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.050	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.016	38
300	1.005	13
400	1.002	36
500	1.008	38
600	1.005	38
700	1.002	6
800	1.003	42
900	1.004	42
1000	1.001	42

Effects of a single practice, management support

SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055

	58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
SINSQU		0.909	1.786	0.000	1.72%	0.078	0.212	0.410
	58.000	1.341	2.777	5.198	1.72%	0.608	1.392	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

-23.618 27.997

Posterior Predictive P-Value 0.523

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.170	0.051	0.001	0.068	0.267	*
CHOICE15	0.030	0.039	0.222	-0.048	0.109	
BULLY15	0.098	0.059	0.042	-0.012	0.217	
DUTIES15	-0.085	0.043	0.024	-0.173	-0.001	*
PRESS15	-0.045	0.040	0.131	-0.122	0.036	
KES15	0.804	0.095	0.000	0.617	0.990	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	-0.094	0.063	0.070	-0.217	0.032	
SINSQU	-0.150	0.056	0.001	-0.268	-0.047	*

SINGLE WITH						
SINSQU	-0.237	0.153	0.048	-0.572	0.039	

#### Means

SINGLE	0.022	0.126	0.425	-0.224	0.271	
SINSQU	0.922	0.160	0.000	0.597	1.234	*

#### Thresholds

KESCAT16\$1	-0.578	0.075	0.000	-0.738	-0.439	*
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#### Variances

SINGLE	0.915	0.177	0.000	0.656	1.361	*
SINSQU	1.354	0.254	0.000	0.954	1.942	*

#### Residual Variances

KESCAT16	0.030	0.035	0.000	0.002	0.131	*
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### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.126	0.037	0.001	0.051	0.196	*
CHOICE15	0.029	0.037	0.222	-0.047	0.104	
BULLY15	0.067	0.040	0.042	-0.009	0.149	



DUTIES15	-0.075	0.038	0.024	-0.153	-0.001	*
PRESS15	-0.043	0.038	0.131	-0.115	0.033	
KES15	0.397	0.040	0.000	0.314	0.473	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	-0.350	0.230	0.070	-0.767	0.123	
SINSQU	-0.696	0.184	0.001	-0.971	-0.255	*
SINGLE WITH						
SINSQU	-0.220	0.121	0.048	-0.437	0.036	
Means						
SINGLE	0.023	0.129	0.425	-0.221	0.278	
SINSQU	0.790	0.153	0.000	0.484	1.090	*
Thresholds						
KESCAT16\$1	-2.188	0.702	0.000	-4.108	-1.356	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.459	0.221	0.000	0.042	0.861	*

R-SQUARE

Within Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.224	0.034	0.000	0.160	0.290

Between Level

Variable	Estimate	Posterior	One-Tailed	95% C.I.	
		S.D.	P-Value	Lower 2.5%	Upper 2.5%
KESCAT16	0.541	0.221	0.000	0.139	0.958

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU	PRESS15	DUTIES15
	_____ 0	_____ 0

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA	PRESS15	DUTIES15
KESCAT16	_____ 0	_____ 0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	BETA	
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>13</u>	<u>15</u>	<u>18</u>	<u>22</u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u>33</u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>42</u>

NU		
KESCAT16	SINGLE	SINSQU
<u>          </u>	<u>          </u>	<u>          </u>

0	0	0
---	---	---

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU  
KESCAT16  

---

0.000

NU  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15  

---

0.000      0.000      0.000      0.000      0.000

NU  
PRESS15      DUTIES15  

---

0.000      0.000

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<hr/> 1.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<hr/> 0.000	<hr/> 0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA  
KESCAT16      PHY15      KES15      CHOICE15      BULLY15

KESCAT16	<u>0.000</u>				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

	PRESS15	DUTIES15
PRESS15	<u>0.000</u>	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

ALPHA

	PRESS15	DUTIES15
	<u>0.000</u>	<u>0.000</u>

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

	PRESS15	DUTIES15
	<u>          </u>	<u>          </u>



KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

	PSI				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u></u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU		
KESCAT16	SINGLE	SINSQU
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	-0.126	0.704

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.344	
SINSQU	0.000	0.000	0.430

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925469D-04	-0.649530D-04	0.111148D-02		
4	0.452064D-04	0.736533D-04	-0.136531D-03	0.544154D-03	
5	0.101043D-03	0.445899D-04	-0.215357D-03	0.177202D-03	0.108752D-02
6	-0.408531D-04	-0.473538D-04	0.976706D-04	-0.161986D-03	-0.253064D-03
7	-0.289178D-04	-0.148809D-04	-0.639873D-04	-0.127085D-04	0.243412D-04
8	0.658054D-04	-0.736069D-05	0.853629D-04	-0.217217D-04	-0.604052D-04
9	0.159922D-04	0.117699D-04	0.399232D-04	0.167469D-04	0.643529D-04
10	-0.104059D-04	0.311011D-04	0.290209D-04	0.181781D-04	0.419585D-04
11	0.341517D-04	0.910152D-05	-0.169604D-04	-0.127697D-04	0.126624D-04
12	0.333276D-07	0.146066D-04	-0.170031D-04	0.125513D-04	-0.913260D-04
13	0.611667D-04	0.212387D-04	-0.183405D-04	0.534624D-06	0.323008D-04
14	-0.108357D-05	0.118211D-04	-0.293307D-05	-0.151581D-04	-0.196750D-04
15	0.586018D-05	0.141453D-05	0.195652D-04	-0.166293D-04	-0.973794D-05
16	-0.436279D-04	-0.212712D-04	0.227933D-05	0.727799D-05	-0.173964D-04
17	0.588769D-06	0.109613D-04	-0.789193D-05	0.175373D-06	0.138654D-04
18	-0.383137D-04	-0.124734D-05	-0.341526D-04	0.775478D-05	0.209586D-04
19	0.997084D-05	0.174802D-04	0.153413D-04	-0.703259D-05	-0.129295D-04
20	0.517162D-05	0.215852D-05	0.666817D-06	0.934008D-05	0.686059D-05
21	0.831634D-05	-0.829457D-05	0.110267D-04	0.130777D-05	-0.288668D-04
22	0.170008D-04	0.432113D-05	-0.559350D-05	0.192267D-04	0.568179D-04
23	0.254845D-04	0.125176D-04	0.829009D-05	-0.153191D-04	0.219570D-04
24	0.452115D-05	0.211509D-05	0.163261D-04	0.962307D-05	0.159469D-04
25	-0.285393D-05	-0.388489D-05	-0.173979D-04	0.186810D-04	-0.516173D-05
26	-0.327320D-05	-0.116897D-04	0.200318D-05	0.236756D-04	0.304983D-04
27	0.343494D-04	-0.448999D-05	-0.247087D-04	0.183804D-04	0.476397D-04
28	-0.949965D-05	-0.209327D-04	-0.879817D-05	-0.345065D-04	-0.194324D-04
29	-0.213425D-05	0.179171D-05	-0.109412D-04	-0.407490D-05	0.197971D-04
30	-0.611008D-05	-0.126302D-04	-0.168592D-04	0.102624D-04	0.467521D-04
31	-0.880506D-05	0.160424D-05	0.306013D-04	-0.184719D-04	-0.474951D-05
32	-0.428700D-04	0.404126D-05	0.728991D-04	-0.344896D-04	-0.114397D-04
33	-0.108683D-05	0.622469D-05	-0.420462D-04	0.265247D-04	-0.687437D-05
34	-0.167090D-04	-0.275187D-04	0.183561D-04	0.148442D-03	0.372150D-04
35	0.567795D-04	0.211795D-04	-0.155021D-03	-0.101850D-03	0.184303D-04
36	-0.487912D-04	-0.220659D-04	-0.134804D-04	0.605451D-04	0.156140D-04
37	-0.100988D-06	0.223298D-04	-0.440236D-04	0.262627D-04	0.519246D-04
38	0.117682D-04	0.734269D-05	0.772859D-05	0.517372D-04	-0.121445D-05
39	0.210788D-04	0.663455D-04	-0.822231D-04	0.112166D-04	0.269090D-05
40	0.346619D-04	0.750474D-05	-0.108703D-03	0.382296D-05	-0.391196D-04
41	-0.157142D-03	-0.806434D-04	-0.980575D-04	-0.670657D-04	0.426219D-03
42	0.336578D-04	0.182286D-04	-0.506166D-05	0.488580D-04	0.113166D-03

	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881824D-03				
7	-0.759366D-05	0.259896D-02			
8	-0.143630D-04	-0.569337D-03	0.893829D-02		
9	0.513008D-05	0.866096D-04	0.460689D-03	0.150420D-02	
10	-0.487274D-05	0.242808D-05	-0.202281D-03	0.162544D-03	0.350646D-02
11	-0.176612D-04	-0.275650D-03	-0.104494D-03	0.392214D-04	-0.288183D-03
12	0.187338D-04	-0.210141D-04	0.397043D-03	-0.192918D-03	0.335039D-03
13	-0.161086D-04	0.755340D-04	0.508863D-05	0.778573D-05	-0.197717D-04
14	0.166906D-04	0.263185D-04	-0.407773D-04	0.397624D-05	0.248858D-04
15	0.692074D-05	-0.780666D-05	-0.168009D-04	0.137327D-04	0.368323D-04
16	-0.201658D-04	0.665586D-05	0.672352D-05	0.121030D-04	0.161187D-05
17	-0.197581D-04	0.466166D-05	-0.277040D-04	-0.796295D-05	0.660009D-05
18	-0.428626D-04	0.486294D-04	-0.632095D-04	-0.244669D-04	0.414366D-04
19	0.116399D-04	-0.148260D-04	-0.740052D-05	0.237094D-06	-0.238498D-04
20	0.329151D-05	-0.109391D-04	0.600463D-04	0.589637D-05	-0.934743D-05
21	0.474695D-05	0.508388D-05	-0.142760D-03	-0.288509D-04	0.991909D-05
22	-0.325520D-04	0.207315D-04	0.595244D-04	-0.193160D-05	-0.247198D-04
23	-0.409926D-05	-0.895024D-05	0.284367D-05	-0.173735D-04	-0.306635D-04
24	-0.332215D-05	0.135711D-04	-0.257992D-04	0.199005D-04	0.152195D-04
25	-0.215113D-04	0.296924D-04	-0.135372D-03	-0.184599D-04	-0.502024D-04
26	-0.222719D-05	0.291678D-04	0.863310D-04	0.431276D-04	0.418636D-05
27	-0.132702D-04	0.120245D-03	0.442829D-04	0.582822D-04	0.747912D-04
28	0.255352D-04	-0.174972D-04	-0.763563D-04	0.333887D-04	0.477390D-04
29	-0.445305D-05	0.183328D-04	-0.486421D-04	0.444260D-05	-0.181473D-04
30	-0.530597D-05	0.105792D-05	0.113716D-03	0.201454D-05	0.868912D-04
31	0.262533D-05	-0.135558D-04	-0.109956D-03	-0.206796D-04	0.687433D-05
32	-0.578956D-05	0.222498D-04	-0.125431D-03	-0.361286D-04	-0.911654D-06
33	0.387120D-04	0.447285D-04	0.119979D-03	0.144968D-04	0.222162D-04
34	-0.993633D-04	0.708412D-04	-0.332178D-03	-0.294418D-03	-0.431189D-04
35	-0.720603D-04	0.167493D-03	0.169622D-04	-0.167180D-04	-0.535113D-04
36	-0.398031D-04	0.115707D-03	0.111611D-04	-0.708693D-04	-0.579958D-04
37	0.344073D-05	-0.229899D-03	-0.275338D-03	-0.212959D-03	0.591020D-05
38	0.254590D-04	0.585710D-04	0.190998D-03	0.964913D-04	0.118326D-03
39	-0.129724D-04	-0.768920D-04	0.743600D-04	0.642313D-04	-0.105653D-03
40	-0.115788D-03	0.134293D-03	0.479934D-03	-0.105574D-04	-0.191908D-03
41	-0.209958D-03	-0.617313D-04	-0.925199D-04	-0.166546D-03	-0.176583D-03
42	-0.343551D-05	-0.395858D-03	-0.118683D-02	-0.111749D-03	-0.221930D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.160701D-02				
12	0.305844D-03	0.184598D-02			
13	-0.270118D-05	-0.225426D-04	0.887201D-03		
14	0.103673D-04	0.268565D-04	0.144167D-03	0.209517D-03	
15	-0.435950D-05	0.326240D-05	0.245873D-04	0.632900D-04	0.178541D-03
16	0.872387D-05	-0.393981D-04	-0.152813D-03	-0.702411D-04	-0.312477D-04
17	0.426681D-04	-0.195091D-04	-0.515580D-04	-0.385993D-04	-0.503959D-04
18	-0.523621D-04	0.965624D-04	0.342594D-04	0.115865D-04	-0.742536D-05
19	-0.198305D-04	0.759221D-05	0.672147D-04	0.296102D-04	0.604584D-05
20	-0.308951D-04	-0.607184D-05	0.115518D-04	0.103571D-04	0.370417D-04
21	0.303665D-04	0.112453D-04	-0.192936D-04	-0.532217D-05	-0.923948D-05
22	0.290361D-05	0.488264D-05	0.110039D-04	-0.118802D-04	0.892652D-05
23	0.113462D-04	0.374322D-04	0.167277D-03	0.404973D-04	0.601238D-05
24	-0.232318D-04	0.113094D-04	0.306036D-04	0.384784D-04	0.344868D-04
25	0.338558D-04	-0.312478D-04	-0.228115D-04	-0.347872D-04	-0.408775D-05
26	0.119349D-05	0.154102D-04	0.648903D-05	0.160127D-05	0.118951D-04
27	0.464760D-04	0.802109D-04	0.386279D-04	-0.102898D-04	-0.152312D-04
28	-0.831086D-05	-0.185060D-04	-0.849078D-04	-0.497596D-04	-0.142756D-04
29	0.354399D-04	0.214537D-04	-0.125947D-04	-0.204223D-04	-0.363784D-04
30	-0.180490D-05	-0.404076D-05	0.759435D-04	0.268322D-04	0.103320D-04
31	0.137909D-05	0.100025D-05	-0.109941D-04	-0.694204D-05	-0.112042D-04
32	-0.106632D-04	0.220211D-04	0.794496D-05	-0.177153D-04	-0.635364D-06
33	-0.389340D-05	0.762491D-05	0.344295D-04	0.559384D-05	0.130617D-05
34	-0.106276D-04	-0.875995D-05	0.164050D-05	0.109457D-04	0.446747D-04
35	-0.558121D-04	0.237710D-03	-0.882984D-04	-0.870332D-04	-0.105497D-03
36	0.478174D-04	-0.174286D-04	-0.255463D-04	-0.161344D-04	0.248793D-05
37	-0.198279D-04	0.108424D-03	-0.113831D-03	-0.293832D-04	0.129266D-04
38	0.805486D-04	0.427244D-04	0.667295D-04	0.381439D-04	0.921651D-05
39	0.104515D-03	0.102007D-05	0.290143D-04	0.101205D-03	0.106008D-03
40	-0.195973D-03	-0.133621D-03	0.182347D-03	0.739682D-04	-0.823001D-05
41	-0.244725D-03	0.799713D-04	-0.139143D-03	-0.617869D-04	0.320960D-04
42	-0.623389D-04	0.114080D-03	-0.549264D-04	-0.432916D-04	-0.144401D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769022D-03				
17	0.156216D-03	0.354724D-03			
18	-0.227046D-03	-0.189515D-03	0.243861D-02		
19	-0.865615D-04	-0.203810D-04	0.315753D-04	0.382753D-03	

20	-0.222484D-04	-0.469498D-04	-0.743770D-05	0.626869D-04	0.180144D-03
21	0.291632D-04	0.785555D-04	-0.291568D-03	-0.493818D-04	-0.695904D-04
22	-0.111552D-04	-0.191024D-04	0.505703D-04	0.404032D-04	0.785103D-04
23	-0.105870D-03	-0.310528D-04	0.595007D-04	0.140411D-03	0.267925D-04
24	-0.243683D-04	-0.662501D-04	0.113721D-04	0.237658D-04	0.630442D-04
25	0.126739D-03	0.658695D-04	-0.445693D-03	-0.683715D-06	-0.137392D-04
26	-0.291767D-05	-0.194978D-04	0.622172D-04	0.586109D-04	0.497205D-04
27	-0.684035D-05	-0.268305D-04	0.178489D-03	0.227336D-04	0.208931D-04
28	0.981687D-04	0.245318D-04	-0.700926D-04	-0.123469D-03	-0.325774D-04
29	0.251543D-04	0.505824D-04	0.577472D-05	-0.167977D-04	-0.546357D-04
30	-0.612984D-04	-0.711115D-04	0.278655D-03	0.387214D-04	0.125579D-04
31	0.718685D-05	0.232291D-04	-0.158619D-05	-0.352444D-04	-0.495611D-04
32	0.708148D-05	0.328667D-05	-0.325080D-04	-0.122113D-04	-0.578151D-05
33	-0.291173D-05	-0.142191D-04	-0.379541D-04	-0.689899D-07	0.177261D-04
34	0.903353D-04	-0.114367D-03	0.249604D-03	0.805241D-04	0.143446D-05
35	0.460961D-04	0.144621D-03	-0.122146D-04	-0.846582D-05	-0.862938D-04
36	0.531008D-04	0.704411D-04	-0.506904D-04	0.324972D-04	0.767292D-05
37	0.291878D-05	-0.916510D-05	-0.250348D-04	-0.604997D-05	0.187451D-04
38	-0.276457D-04	-0.477200D-05	0.620972D-04	0.449667D-05	-0.893071D-06
39	-0.984661D-04	-0.159029D-03	0.110013D-03	-0.684211D-04	-0.938247D-04
40	-0.619721D-04	-0.109595D-05	-0.438745D-04	0.803727D-04	0.392908D-04
41	0.930391D-04	-0.110580D-04	-0.526480D-03	-0.174355D-03	-0.814407D-04
42	-0.115413D-04	0.267685D-05	-0.923444D-04	0.364339D-04	0.248665D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679813D-03				
22	-0.137505D-03	0.652691D-03			
23	-0.299976D-04	0.352323D-04	0.732781D-03		
24	-0.239280D-04	0.149342D-04	0.119149D-03	0.338062D-03	
25	0.221871D-03	-0.480887D-04	-0.103098D-03	-0.980461D-04	0.129235D-02
26	-0.139739D-03	0.196805D-03	0.696517D-04	0.830284D-04	-0.137388D-03
27	-0.645303D-04	0.875081D-04	0.222574D-03	0.134563D-03	-0.395033D-03
28	0.286771D-04	-0.260066D-04	-0.206207D-03	-0.374914D-04	0.515237D-04
29	0.958313D-05	-0.238845D-04	-0.251828D-04	-0.784361D-04	0.282738D-04
30	-0.168732D-03	0.559513D-04	0.104499D-03	0.317220D-04	-0.300959D-03
31	0.801579D-04	-0.186279D-03	-0.155894D-04	-0.182974D-04	0.401938D-04
32	0.216869D-04	-0.450040D-04	-0.836182D-04	-0.752747D-04	0.166248D-03
33	-0.189887D-04	0.251808D-04	0.296612D-04	0.414197D-04	-0.418863D-04
34	-0.182471D-03	0.721814D-04	-0.518654D-04	0.508516D-04	-0.134497D-03
35	0.965871D-04	0.858342D-04	0.417504D-04	-0.227822D-04	-0.151340D-03
36	0.772038D-05	0.530957D-04	-0.980069D-04	0.742536D-05	0.356568D-04

37	0.357425D-05	-0.142423D-04	-0.771319D-04	-0.167208D-04	0.343408D-04
38	0.206696D-04	0.159509D-04	0.248137D-04	0.146190D-04	0.100662D-04
39	0.125999D-03	0.171428D-04	0.355367D-04	0.403535D-04	0.102944D-03
40	0.159286D-04	-0.166660D-03	-0.653268D-04	-0.819717D-04	0.209949D-03
41	0.311025D-04	0.139194D-04	-0.524110D-04	0.120763D-03	-0.130796D-03
42	0.413652D-04	-0.433478D-04	-0.111994D-04	0.159366D-05	0.838587D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650055D-03				
27	0.437850D-03	0.241825D-02			
28	-0.322463D-04	-0.686990D-04	0.686014D-03		
29	-0.368510D-04	-0.517565D-04	0.112373D-03	0.287871D-03	
30	0.842746D-04	0.150247D-03	-0.120976D-03	-0.785479D-04	0.112436D-02
31	-0.185722D-03	-0.123287D-03	0.743778D-04	0.729809D-04	-0.167911D-03
32	-0.234905D-03	-0.575871D-03	0.152288D-03	0.920614D-04	-0.231365D-03
33	0.832776D-04	0.153542D-03	-0.160470D-03	-0.131438D-03	0.271638D-03
34	0.581275D-04	-0.514592D-04	0.218320D-04	0.217831D-06	0.506362D-04
35	0.904694D-04	-0.801434D-04	-0.493227D-04	0.273753D-04	0.626009D-04
36	0.172797D-04	-0.472965D-04	0.453938D-05	-0.275089D-04	-0.101460D-03
37	0.289586D-04	-0.779390D-04	-0.204038D-04	-0.143532D-04	-0.469883D-04
38	-0.325276D-04	-0.129949D-04	-0.307706D-04	-0.658731D-05	0.560711D-04
39	0.602108D-04	-0.146155D-03	-0.248679D-04	-0.852148D-04	0.269864D-04
40	-0.700734D-04	-0.174558D-03	0.978911D-04	0.238288D-04	-0.133196D-03
41	0.271437D-03	0.426340D-03	0.110018D-03	0.112022D-03	-0.179395D-03
42	-0.226005D-04	-0.520595D-04	-0.439618D-04	-0.139285D-04	-0.107884D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597753D-03				
32	0.241950D-03	0.115792D-02			
33	-0.349918D-03	-0.537309D-03	0.195430D-02		
34	0.528561D-04	-0.164917D-03	0.473899D-04	0.157499D-01	
35	-0.623913D-04	-0.126605D-04	0.282565D-04	-0.485452D-02	0.256694D-01
36	-0.284089D-04	0.152122D-04	-0.136218D-03	0.249535D-03	0.260453D-04
37	-0.244194D-04	-0.598732D-05	0.974391D-04	-0.178137D-04	0.599271D-04
38	0.495649D-05	-0.795243D-05	0.296525D-04	-0.130531D-04	0.782006D-04
39	0.452597D-04	-0.744471D-04	0.149694D-03	-0.298569D-03	-0.249966D-03
40	-0.818364D-04	0.168777D-03	0.113979D-03	0.925863D-03	-0.282233D-03
41	0.302057D-03	-0.106197D-03	-0.296166D-03	-0.102945D-02	0.667359D-03



42 -0.146221D-04 0.295081D-04 0.464413D-04 0.784914D-04 -0.196500D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.395431D-02				
37	0.787296D-03	0.316762D-02			
38	-0.912095D-04	-0.579933D-03	0.121140D-02		
39	-0.622053D-04	-0.131631D-03	-0.142075D-03	0.312621D-01	
40	0.282338D-03	0.129954D-03	-0.939917D-04	-0.956662D-02	0.234726D-01
41	-0.186108D-03	0.560015D-03	-0.344240D-03	0.435154D-02	-0.116101D-01
42	0.522867D-03	0.264164D-02	-0.752862D-03	0.296473D-03	0.584498D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.646814D-01	
42	0.399885D-03	0.556058D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.023	-0.018	-0.038	-0.011	0.014
8	0.028	-0.005	0.027	-0.010	-0.019
9	0.017	0.018	0.031	0.019	0.050
10	-0.007	0.032	0.015	0.013	0.021
11	0.035	0.014	-0.013	-0.014	0.010
12	0.000	0.020	-0.012	0.013	-0.064
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.032	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.006	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.005	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.022
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.029	0.026	-0.005
34	-0.005	-0.013	0.004	0.051	0.009
35	0.014	0.008	-0.029	-0.027	0.003
36	-0.032	-0.021	-0.006	0.041	0.008
37	0.000	0.024	-0.023	0.020	0.028
38	0.014	0.013	0.007	0.064	-0.001
39	0.005	0.023	-0.014	0.003	0.000
40	0.009	0.003	-0.021	0.001	-0.008
41	-0.025	-0.019	-0.012	-0.011	0.051
42	0.018	0.015	-0.002	0.028	0.046

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.005	1.000			
8	-0.005	-0.118	1.000		
9	0.004	0.044	0.126	1.000	
10	-0.003	0.001	-0.036	0.071	1.000
11	-0.015	-0.135	-0.028	0.025	-0.121
12	0.015	-0.010	0.098	-0.116	0.132
13	-0.018	0.050	0.002	0.007	-0.011
14	0.039	0.036	-0.030	0.007	0.029
15	0.017	-0.011	-0.013	0.026	0.047
16	-0.024	0.005	0.003	0.011	0.001
17	-0.035	0.005	-0.016	-0.011	0.006
18	-0.029	0.019	-0.014	-0.013	0.014
19	0.020	-0.015	-0.004	0.000	-0.021
20	0.008	-0.016	0.047	0.011	-0.012
21	0.006	0.004	-0.058	-0.029	0.006

22	-0.043	0.016	0.025	-0.002	-0.016
23	-0.005	-0.006	0.001	-0.017	-0.019
24	-0.006	0.014	-0.015	0.028	0.014
25	-0.020	0.016	-0.040	-0.013	-0.024
26	-0.003	0.022	0.036	0.044	0.003
27	-0.009	0.048	0.010	0.031	0.026
28	0.033	-0.013	-0.031	0.033	0.031
29	-0.009	0.021	-0.030	0.007	-0.018
30	-0.005	0.001	0.036	0.002	0.044
31	0.004	-0.011	-0.048	-0.022	0.005
32	-0.006	0.013	-0.039	-0.027	0.000
33	0.029	0.020	0.029	0.008	0.008
34	-0.027	0.011	-0.028	-0.060	-0.006
35	-0.015	0.021	0.001	-0.003	-0.006
36	-0.021	0.036	0.002	-0.029	-0.016
37	0.002	-0.080	-0.052	-0.098	0.002
38	0.025	0.033	0.058	0.071	0.057
39	-0.002	-0.009	0.004	0.009	-0.010
40	-0.025	0.017	0.033	-0.002	-0.021
41	-0.028	-0.005	-0.004	-0.017	-0.012
42	-0.002	-0.104	-0.168	-0.039	-0.050

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.178	1.000			
13	-0.002	-0.018	1.000		
14	0.018	0.043	0.334	1.000	
15	-0.008	0.006	0.062	0.327	1.000
16	0.008	-0.033	-0.185	-0.175	-0.084
17	0.057	-0.024	-0.092	-0.142	-0.200
18	-0.026	0.046	0.023	0.016	-0.011
19	-0.025	0.009	0.115	0.105	0.023
20	-0.057	-0.011	0.029	0.053	0.207
21	0.029	0.010	-0.025	-0.014	-0.027
22	0.003	0.004	0.014	-0.032	0.026
23	0.010	0.032	0.207	0.103	0.017
24	-0.032	0.014	0.056	0.145	0.140
25	0.023	-0.020	-0.021	-0.067	-0.009
26	0.001	0.014	0.009	0.004	0.035
27	0.024	0.038	0.026	-0.014	-0.023
28	-0.008	-0.016	-0.109	-0.131	-0.041

29	0.052	0.029	-0.025	-0.083	-0.160
30	-0.001	-0.003	0.076	0.055	0.023
31	0.001	0.001	-0.015	-0.020	-0.034
32	-0.008	0.015	0.008	-0.036	-0.001
33	-0.002	0.004	0.026	0.009	0.002
34	-0.002	-0.002	0.000	0.006	0.027
35	-0.009	0.035	-0.019	-0.038	-0.049
36	0.019	-0.006	-0.014	-0.018	0.003
37	-0.009	0.045	-0.068	-0.036	0.017
38	0.058	0.029	0.064	0.076	0.020
39	0.015	0.000	0.006	0.040	0.045
40	-0.032	-0.020	0.040	0.033	-0.004
41	-0.024	0.007	-0.018	-0.017	0.009
42	-0.021	0.036	-0.025	-0.040	-0.014

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.045	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.255
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.118	0.145
27	-0.005	-0.029	0.074	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.008	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.026	-0.048	0.040	0.033	0.001
35	0.010	0.048	-0.002	-0.003	-0.040
36	0.030	0.059	-0.016	0.026	0.009
37	0.002	-0.009	-0.009	-0.005	0.025
38	-0.029	-0.007	0.036	0.007	-0.002
39	-0.020	-0.048	0.013	-0.020	-0.040
40	-0.015	0.000	-0.006	0.027	0.019

41	0.013	-0.002	-0.042	-0.035	-0.024
42	-0.006	0.002	-0.025	0.025	0.025

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.056	0.023	-0.015	0.022	-0.030
35	0.023	0.021	0.010	-0.008	-0.026
36	0.005	0.033	-0.058	0.006	0.016
37	0.002	-0.010	-0.051	-0.016	0.017
38	0.023	0.018	0.026	0.023	0.008
39	0.027	0.004	0.007	0.012	0.016
40	0.004	-0.043	-0.016	-0.029	0.038
41	0.005	0.002	-0.008	0.026	-0.014
42	0.021	-0.023	-0.006	0.001	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.018	-0.008	0.007	0.000	0.012
35	0.022	-0.010	-0.012	0.010	0.012

36	0.011	-0.015	0.003	-0.026	-0.048
37	0.020	-0.028	-0.014	-0.015	-0.025
38	-0.037	-0.008	-0.034	-0.011	0.048
39	0.013	-0.017	-0.005	-0.028	0.005
40	-0.018	-0.023	0.024	0.009	-0.026
41	0.042	0.034	0.017	0.026	-0.021
42	-0.012	-0.014	-0.023	-0.011	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.017	-0.039	0.009	1.000	
35	-0.016	-0.002	0.004	-0.241	1.000
36	-0.018	0.007	-0.049	0.032	0.003
37	-0.018	-0.003	0.039	-0.003	0.007
38	0.006	-0.007	0.019	-0.003	0.014
39	0.010	-0.012	0.019	-0.013	-0.009
40	-0.022	0.032	0.017	0.048	-0.011
41	0.049	-0.012	-0.026	-0.032	0.016
42	-0.008	0.012	0.014	0.008	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.222	1.000			
38	-0.042	-0.296	1.000		
39	-0.006	-0.013	-0.023	1.000	
40	0.029	0.015	-0.018	-0.353	1.000
41	-0.012	0.039	-0.039	0.097	-0.298
42	0.112	0.629	-0.290	0.022	0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	0.021	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.014	38
300	1.006	42
400	1.002	38
500	1.011	38
600	1.008	38
700	1.002	6
800	1.003	42
900	1.006	42
1000	1.002	42

Effects of a single practice, flexible time

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5



PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	SINGLE	SINSQU	PHY15	KES15
KESCAT16	1.000				
SINGLE	1.000	1.000			
SINSQU	1.000	1.000	1.000		
PHY15	1.000	1.000	1.000	1.000	
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage			
	CHOICE15	BULLY15	PRESS15	DUTIES15
CHOICE15	0.990			
BULLY15	0.989	0.990		
PRESS15	0.989	0.989	0.990	
DUTIES15	0.990	0.990	0.990	0.991

UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
SINGLE	0.431	0.291	0.000	22.41%	0.000	0.150	0.350

	58.000	0.159	-1.582	1.000	18.97%	0.500	0.950	
SINSQU		0.345	0.672	0.000	22.41%	0.000	0.022	0.125
	58.000	0.161	-1.240	1.000	18.97%	0.250	0.902	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

#### MODEL FIT INFORMATION

Number of Free Parameters 42

Bayesian Posterior Predictive Checking using Chi-Square

95% Confidence Interval for the Difference Between  
the Observed and the Replicated Chi-Square Values

16.194 78.751

Posterior Predictive P-Value 0.007

#### MODEL RESULTS

Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5% Upper 2.5%	Significance
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Within Level

KESCAT16 ON						
PHY15	0.167	0.051	0.001	0.068	0.262	*
CHOICE15	0.027	0.039	0.247	-0.052	0.105	
BULLY15	0.105	0.059	0.029	-0.005	0.227	
DUTIES15	-0.080	0.043	0.027	-0.169	0.002	
PRESS15	-0.049	0.040	0.111	-0.126	0.029	
KES15	0.807	0.095	0.000	0.620	0.994	*

KES15 WITH						
PHY15	0.107	0.014	0.000	0.080	0.136	*
CHOICE15	-0.096	0.019	0.000	-0.134	-0.061	*
BULLY15	0.073	0.013	0.000	0.045	0.100	*
PRESS15	0.063	0.018	0.001	0.029	0.101	*
DUTIES15	-0.073	0.017	0.000	-0.106	-0.041	*

PHY15 WITH						
CHOICE15	-0.096	0.028	0.000	-0.152	-0.043	*
BULLY15	0.040	0.020	0.021	0.003	0.077	*
PRESS15	0.120	0.027	0.000	0.068	0.174	*
DUTIES15	-0.059	0.026	0.010	-0.112	-0.007	*

CHOICE15 WITH						
BULLY15	-0.139	0.026	0.000	-0.191	-0.089	*
PRESS15	-0.197	0.036	0.000	-0.266	-0.123	*
DUTIES15	0.149	0.034	0.000	0.086	0.218	*

BULLY15 WITH						
PRESS15	0.201	0.026	0.000	0.152	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.222	-0.130	*

PRESS15 WITH						
DUTIES15	-0.285	0.034	0.000	-0.357	-0.223	*

Means						
PHY15	0.000	0.025	0.496	-0.049	0.047	
KES15	0.001	0.017	0.491	-0.033	0.033	
CHOICE15	0.000	0.033	0.497	-0.064	0.065	
BULLY15	-0.001	0.023	0.494	-0.046	0.044	
PRESS15	0.000	0.033	0.497	-0.065	0.066	
DUTIES15	0.001	0.030	0.479	-0.058	0.060	

Variances

PHY15	0.704	0.030	0.000	0.650	0.766	*
KES15	0.314	0.013	0.000	0.289	0.342	*
CHOICE15	1.194	0.049	0.000	1.107	1.298	*
BULLY15	0.603	0.026	0.000	0.559	0.657	*
PRESS15	1.160	0.049	0.000	1.074	1.259	*
DUTIES15	1.031	0.044	0.000	0.947	1.123	*

#### Between Level

KESCAT16 ON						
SINGLE	0.261	0.585	0.325	-0.844	1.505	
SINSQU	-0.160	0.596	0.397	-1.382	0.946	

SINGLE WITH						
SINSQU	0.155	0.031	0.000	0.105	0.228	*

#### Means

SINGLE	0.430	0.055	0.000	0.326	0.538	*
SINSQU	0.346	0.055	0.000	0.238	0.454	*

#### Thresholds

KESCAT16\$1	-0.410	0.096	0.000	-0.602	-0.210	*
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#### Variances

SINGLE	0.177	0.033	0.000	0.125	0.253	*
SINSQU	0.178	0.033	0.000	0.127	0.256	*

#### Residual Variances

KESCAT16	0.037	0.043	0.000	0.002	0.164	*
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### STANDARDIZED MODEL RESULTS

#### STDYX Standardization

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.124	0.037	0.001	0.050	0.194	*
CHOICE15	0.026	0.037	0.247	-0.051	0.099	
BULLY15	0.071	0.040	0.029	-0.003	0.154	

DUTIES15	-0.071	0.038	0.027	-0.148	0.002	
PRESS15	-0.047	0.038	0.111	-0.119	0.028	
KES15	0.398	0.040	0.000	0.315	0.474	*
KES15 WITH						
PHY15	0.227	0.028	0.000	0.173	0.282	*
CHOICE15	-0.157	0.030	0.000	-0.215	-0.101	*
BULLY15	0.168	0.030	0.000	0.106	0.224	*
PRESS15	0.104	0.030	0.001	0.047	0.165	*
DUTIES15	-0.128	0.029	0.000	-0.185	-0.072	*
PHY15 WITH						
CHOICE15	-0.104	0.030	0.000	-0.164	-0.048	*
BULLY15	0.062	0.030	0.021	0.004	0.119	*
PRESS15	0.132	0.029	0.000	0.075	0.190	*
DUTIES15	-0.069	0.030	0.010	-0.129	-0.008	*
CHOICE15 WITH						
BULLY15	-0.164	0.030	0.000	-0.220	-0.105	*
PRESS15	-0.168	0.029	0.000	-0.224	-0.105	*
DUTIES15	0.135	0.029	0.000	0.077	0.192	*
BULLY15 WITH						
PRESS15	0.241	0.028	0.000	0.186	0.295	*
DUTIES15	-0.223	0.029	0.000	-0.277	-0.168	*
PRESS15 WITH						
DUTIES15	-0.261	0.028	0.000	-0.319	-0.206	*
Means						
PHY15	0.000	0.029	0.496	-0.058	0.057	
KES15	0.001	0.030	0.491	-0.059	0.060	
CHOICE15	0.000	0.031	0.497	-0.060	0.060	
BULLY15	-0.001	0.030	0.494	-0.061	0.057	
PRESS15	0.000	0.031	0.497	-0.060	0.062	
DUTIES15	0.001	0.029	0.479	-0.057	0.060	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	

Between Level

KESCAT16 ON						
SINGLE	0.529	0.917	0.325	-1.424	1.860	
SINSQU	-0.347	0.947	0.397	-1.740	1.619	
SINGLE WITH						
SINSQU	0.881	0.030	0.000	0.811	0.926	*
Means						
SINGLE	1.031	0.160	0.000	0.726	1.337	*
SINSQU	0.821	0.150	0.000	0.532	1.119	*
Thresholds						
KESCAT16\$1	-1.738	1.288	0.000	-5.725	-0.573	*
Variances						
SINGLE	1.000	0.000	0.000	1.000	1.000	
SINSQU	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.713	0.248	0.000	0.101	0.986	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.224	0.034	0.000	0.160	0.291

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.287	0.248	0.000	0.014	0.899

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

0

NU

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

NU

PRESS15

0

DUTIES15

0

LAMBDA

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

LAMBDA

PRESS15

0

DUTIES15

0

KESCAT16

0

PHY15

0

KES15

0

CHOICE15

0

BULLY15

0

PRESS15

0

DUTIES15

0

THETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA			
	PRESS15	DUTIES15	
PRESS15	0		
DUTIES15	0	0	

ALPHA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	0	1	2	3	4

ALPHA			
	PRESS15	DUTIES15	
	5	6	

BETA					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0	7	8	9	10
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0



BETA		
	PRESS15	DUTIES15
KESCAT16	<u>11</u>	<u>12</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0	13			
KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

PSI		
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
	KESCAT16
	<u>42</u>

NU			
	KESCAT16	SINGLE	SINSQU
	<u></u>	<u></u>	<u></u>

0                      0                      0

# LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	0	0
SINGLE	0	0	0
SINSQU	0	0	0

# THETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0		
SINGLE	0	0	
SINSQU	0	0	0

# ALPHA

	KESCAT16	SINGLE	SINSQU
	0	34	35

# BETA

	KESCAT16	SINGLE	SINSQU
KESCAT16	0	36	37
SINGLE	0	0	0
SINSQU	0	0	0

# PSI

	KESCAT16	SINGLE	SINSQU
KESCAT16	38		
SINGLE	0	39	
SINSQU	0	40	41

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<hr/>
0.000

NU				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0.000	0.000	0.000	0.000	0.000

NU	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

LAMBDA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000
CHOICE15	0.000	0.000	0.000	1.000
BULLY15	0.000	0.000	1.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

LAMBDA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000
PHY15	0.000
KES15	0.000
CHOICE15	0.000
BULLY15	0.000
PRESS15	1.000
DUTIES15	0.000

THETA				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15

KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA

PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
0.000	0.000	0.000	0.000	0.000

ALPHA

PRESS15	DUTIES15
0.000	0.000

BETA

KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000

BETA

PRESS15	DUTIES15

KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u>          </u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>          </u>
	-0.352

NU			
	KESCAT16	SINGLE	SINSQU
	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>

LAMBDA

	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000	0.000	0.000
SINGLE	0.000	1.000	0.000
SINSQU	0.000	0.000	1.000

THETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000		
SINGLE	0.000	0.000	
SINSQU	0.000	0.000	0.000

ALPHA			
	KESCAT16	SINGLE	SINSQU
	0.000	0.454	0.337

BETA			
	KESCAT16	SINGLE	SINSQU
KESCAT16	0.000	0.000	0.000
SINGLE	0.000	0.000	0.000
SINSQU	0.000	0.000	0.000

PSI			
	KESCAT16	SINGLE	SINSQU
KESCAT16	1.000		
SINGLE	0.000	0.065	
SINSQU	0.000	0.000	0.063

# PRIORS FOR ALL PARAMETERS

Parameter	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity

Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity
Parameter 33~IW(1.000,7)	infinity	infinity	infinity
Parameter 34~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 35~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 36~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 37~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 38~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 39~IW(1.000,3)	infinity	infinity	infinity
Parameter 40~IW(0.000,3)	infinity	infinity	infinity
Parameter 41~IW(1.000,3)	infinity	infinity	infinity
Parameter 42~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.606068D-03				
2	0.104890D-03	0.277347D-03			
3	-0.925443D-04	-0.649596D-04	0.111153D-02		
4	0.451936D-04	0.736501D-04	-0.136572D-03	0.544191D-03	
5	0.101052D-03	0.445908D-04	-0.215374D-03	0.177186D-03	0.108754D-02
6	-0.408420D-04	-0.473456D-04	0.976760D-04	-0.161981D-03	-0.253045D-03
7	-0.258656D-04	-0.123101D-04	-0.665628D-04	-0.110766D-04	0.266367D-04
8	0.669620D-04	-0.505248D-05	0.793349D-04	-0.197520D-04	-0.590302D-04
9	0.153612D-04	0.126880D-04	0.387426D-04	0.215517D-04	0.607081D-04
10	-0.103804D-04	0.311635D-04	0.338219D-04	0.113278D-04	0.427785D-04
11	0.348055D-04	0.941480D-05	-0.181780D-04	-0.957182D-05	0.997843D-05
12	0.254553D-06	0.154026D-04	-0.154502D-04	0.100044D-04	-0.915604D-04
13	0.611668D-04	0.212392D-04	-0.183465D-04	0.548002D-06	0.322790D-04
14	-0.108290D-05	0.118216D-04	-0.293040D-05	-0.151544D-04	-0.196795D-04
15	0.586054D-05	0.141445D-05	0.195774D-04	-0.166265D-04	-0.974369D-05
16	-0.436408D-04	-0.212723D-04	0.229049D-05	0.728446D-05	-0.174061D-04
17	0.582882D-06	0.109617D-04	-0.788705D-05	0.187919D-06	0.138669D-04
18	-0.382899D-04	-0.124095D-05	-0.341116D-04	0.776410D-05	0.209099D-04
19	0.998031D-05	0.174805D-04	0.153289D-04	-0.702374D-05	-0.129177D-04
20	0.517603D-05	0.215683D-05	0.647836D-06	0.933855D-05	0.687447D-05
21	0.832064D-05	-0.828459D-05	0.110336D-04	0.130610D-05	-0.288399D-04
22	0.169862D-04	0.430217D-05	-0.561507D-05	0.192209D-04	0.568129D-04
23	0.254796D-04	0.125250D-04	0.828634D-05	-0.152909D-04	0.219481D-04
24	0.452107D-05	0.212117D-05	0.163429D-04	0.962869D-05	0.159342D-04
25	-0.283852D-05	-0.390232D-05	-0.174001D-04	0.186675D-04	-0.511715D-05
26	-0.326788D-05	-0.116887D-04	0.201072D-05	0.236799D-04	0.304706D-04
27	0.343600D-04	-0.452862D-05	-0.246252D-04	0.183770D-04	0.476215D-04
28	-0.949773D-05	-0.209425D-04	-0.876725D-05	-0.345132D-04	-0.194367D-04
29	-0.212851D-05	0.179246D-05	-0.109423D-04	-0.407672D-05	0.198182D-04
30	-0.611532D-05	-0.126235D-04	-0.169696D-04	0.102389D-04	0.467609D-04
31	-0.881347D-05	0.162058D-05	0.306105D-04	-0.185004D-04	-0.474658D-05
32	-0.429081D-04	0.405696D-05	0.729522D-04	-0.344759D-04	-0.114480D-04
33	-0.109559D-05	0.620789D-05	-0.419545D-04	0.265112D-04	-0.689413D-05
34	-0.102931D-04	-0.152341D-04	0.179110D-04	0.581700D-04	0.105772D-04
35	-0.257408D-05	-0.111956D-04	-0.644459D-05	0.444884D-04	0.978163D-05
36	-0.238969D-03	-0.479451D-03	-0.899007D-04	0.618397D-03	-0.310062D-03
37	0.296168D-03	0.565641D-03	-0.725299D-05	-0.406577D-03	0.559203D-03
38	0.172266D-04	0.129013D-04	0.201059D-04	0.640026D-04	-0.166031D-04
39	-0.109928D-04	-0.907751D-06	-0.337400D-04	-0.556091D-05	0.515462D-04
40	-0.136449D-04	-0.465216D-05	-0.188430D-04	-0.410844D-05	0.549524D-04
41	-0.159309D-04	-0.659142D-05	-0.956191D-05	-0.298718D-05	0.572809D-04
42	0.318810D-04	-0.978294D-05	-0.150956D-04	0.157277D-03	0.119302D-03



	ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	6	7	8	9	10
6	0.881819D-03				
7	-0.813555D-05	0.258326D-02			
8	-0.178077D-04	-0.556128D-03	0.897197D-02		
9	0.516564D-05	0.801827D-04	0.463742D-03	0.150853D-02	
10	-0.462123D-05	0.950433D-05	-0.185697D-03	0.155941D-03	0.349895D-02
11	-0.150005D-04	-0.282367D-03	-0.115179D-03	0.447204D-04	-0.291824D-03
12	0.195271D-04	-0.176707D-04	0.411618D-03	-0.177823D-03	0.324587D-03
13	-0.161054D-04	0.727915D-04	0.235194D-05	0.841742D-05	-0.204867D-04
14	0.166938D-04	0.255767D-04	-0.415979D-04	0.446873D-05	0.235411D-04
15	0.691821D-05	-0.812002D-05	-0.169901D-04	0.143341D-04	0.364360D-04
16	-0.201911D-04	0.290365D-05	0.541944D-05	0.117291D-04	0.312980D-05
17	-0.197728D-04	0.208037D-05	-0.264378D-04	-0.650960D-05	0.498298D-05
18	-0.428689D-04	0.578201D-04	-0.554267D-04	-0.224975D-04	0.366495D-04
19	0.116432D-04	-0.144711D-04	-0.805803D-05	0.204185D-05	-0.269243D-04
20	0.330581D-05	-0.845194D-05	0.636936D-04	0.740327D-05	-0.101532D-04
21	0.471078D-05	0.396878D-05	-0.148098D-03	-0.301887D-04	0.957871D-05
22	-0.325230D-04	0.153468D-04	0.600696D-04	-0.223254D-05	-0.231208D-04
23	-0.408708D-05	-0.107380D-04	0.542177D-05	-0.168089D-04	-0.308413D-04
24	-0.330844D-05	0.895286D-05	-0.294281D-04	0.205816D-04	0.151865D-04
25	-0.215064D-04	0.273448D-04	-0.138615D-03	-0.199488D-04	-0.511667D-04
26	-0.224120D-05	0.242830D-04	0.869324D-04	0.428338D-04	0.429512D-05
27	-0.132726D-04	0.108999D-03	0.451550D-04	0.544362D-04	0.796678D-04
28	0.255182D-04	-0.216020D-04	-0.830408D-04	0.315055D-04	0.496148D-04
29	-0.446831D-05	0.191042D-04	-0.491115D-04	0.410286D-05	-0.193001D-04
30	-0.524702D-05	0.602245D-05	0.120829D-03	0.285022D-05	0.867133D-04
31	0.263781D-05	-0.132691D-04	-0.112518D-03	-0.225741D-04	0.845611D-05
32	-0.579043D-05	0.252416D-04	-0.129710D-03	-0.374190D-04	0.275952D-05
33	0.387206D-04	0.627622D-04	0.138525D-03	0.127469D-04	0.195349D-04
34	-0.466868D-04	0.170686D-04	-0.128370D-03	-0.137638D-03	-0.870341D-05
35	-0.549500D-04	0.544978D-04	-0.127381D-03	-0.136961D-03	-0.271053D-04
36	0.431293D-03	-0.285976D-03	-0.149217D-02	0.987592D-03	0.702033D-04
37	-0.606038D-03	0.458002D-03	0.201182D-02	-0.116921D-02	-0.263699D-03
38	0.391440D-04	0.825669D-04	0.244563D-03	0.166460D-03	0.890122D-04
39	-0.507286D-04	0.697446D-05	0.671117D-04	-0.256356D-04	-0.584017D-04
40	-0.412581D-04	0.169449D-05	0.411202D-04	-0.239265D-04	-0.423059D-04
41	-0.307503D-04	-0.732162D-05	0.128184D-04	-0.192966D-04	-0.273733D-04
42	-0.295671D-04	-0.174507D-03	-0.928926D-03	0.107885D-03	-0.272102D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	11	12	13	14	15
11	0.161125D-02				
12	0.305895D-03	0.183778D-02			
13	-0.128394D-05	-0.231497D-04	0.887201D-03		
14	0.114808D-04	0.267886D-04	0.144166D-03	0.209516D-03	
15	-0.362381D-05	0.324796D-05	0.245868D-04	0.632891D-04	0.178540D-03
16	0.938550D-05	-0.376159D-04	-0.152793D-03	-0.702399D-04	-0.312448D-04
17	0.428825D-04	-0.190646D-04	-0.515409D-04	-0.385932D-04	-0.503925D-04
18	-0.534037D-04	0.955321D-04	0.342410D-04	0.115901D-04	-0.744295D-05
19	-0.187214D-04	0.691941D-05	0.671957D-04	0.296142D-04	0.604275D-05
20	-0.316193D-04	-0.697492D-05	0.115453D-04	0.103564D-04	0.370426D-04
21	0.317449D-04	0.116421D-04	-0.192623D-04	-0.532017D-05	-0.923015D-05
22	0.330213D-05	0.772282D-05	0.109827D-04	-0.118935D-04	0.891558D-05
23	0.107771D-04	0.399850D-04	0.167286D-03	0.404981D-04	0.601530D-05
24	-0.215496D-04	0.106848D-04	0.306018D-04	0.384803D-04	0.344860D-04
25	0.367257D-04	-0.327818D-04	-0.228218D-04	-0.347895D-04	-0.407303D-05
26	0.990831D-06	0.146089D-04	0.650092D-05	0.161105D-05	0.119122D-04
27	0.450782D-04	0.818159D-04	0.386163D-04	-0.102898D-04	-0.152013D-04
28	-0.931701D-05	-0.202116D-04	-0.849055D-04	-0.497642D-04	-0.142772D-04
29	0.344370D-04	0.226006D-04	-0.125939D-04	-0.204264D-04	-0.363795D-04
30	-0.239285D-05	-0.220564D-05	0.759108D-04	0.268195D-04	0.103249D-04
31	0.761362D-06	0.232287D-05	-0.109949D-04	-0.693845D-05	-0.112083D-04
32	-0.140625D-04	0.229619D-04	0.793486D-05	-0.177051D-04	-0.675234D-06
33	-0.598027D-05	0.422960D-05	0.344806D-04	0.559665D-05	0.131067D-05
34	-0.363772D-05	0.689722D-05	0.743390D-05	0.763754D-05	0.190988D-04
35	-0.183570D-04	0.481779D-04	0.221059D-05	-0.546657D-05	-0.223572D-06
36	0.751859D-03	-0.571158D-03	0.655646D-03	0.304933D-03	0.522845D-04
37	-0.826493D-03	0.443683D-03	-0.761084D-03	-0.314038D-03	-0.849688D-05
38	0.140163D-03	0.769982D-04	0.833504D-04	0.470853D-04	0.119355D-04
39	-0.593361D-04	-0.127049D-04	0.170187D-04	0.826951D-05	0.955197D-05
40	-0.476498D-04	-0.505719D-05	0.103921D-05	-0.225139D-05	0.470841D-05
41	-0.317331D-04	0.491239D-05	-0.154828D-04	-0.844869D-05	0.441055D-05
42	0.171667D-05	-0.539847D-04	0.731362D-04	0.802844D-05	-0.647950D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.769023D-03				
17	0.156220D-03	0.354737D-03			
18	-0.227067D-03	-0.189521D-03	0.243858D-02		
19	-0.865749D-04	-0.203848D-04	0.315657D-04	0.382749D-03	

20	-0.222513D-04	-0.469576D-04	-0.745335D-05	0.626873D-04	0.180147D-03
21	0.291901D-04	0.785650D-04	-0.291536D-03	-0.493625D-04	-0.695904D-04
22	-0.111465D-04	-0.190995D-04	0.505438D-04	0.403886D-04	0.785258D-04
23	-0.105874D-03	-0.310566D-04	0.594796D-04	0.140427D-03	0.268050D-04
24	-0.243727D-04	-0.662508D-04	0.113633D-04	0.237720D-04	0.630520D-04
25	0.126710D-03	0.658355D-04	-0.445629D-03	-0.697170D-06	-0.137502D-04
26	-0.289981D-05	-0.194919D-04	0.621650D-04	0.585947D-04	0.497176D-04
27	-0.687011D-05	-0.268249D-04	0.178418D-03	0.227734D-04	0.209158D-04
28	0.981870D-04	0.245444D-04	-0.701138D-04	-0.123494D-03	-0.325944D-04
29	0.251636D-04	0.505831D-04	0.574908D-05	-0.168008D-04	-0.546346D-04
30	-0.613237D-04	-0.711224D-04	0.278691D-03	0.387398D-04	0.125695D-04
31	0.720275D-05	0.232479D-04	-0.154611D-05	-0.352457D-04	-0.495784D-04
32	0.707587D-05	0.327412D-05	-0.324373D-04	-0.122351D-04	-0.578356D-05
33	-0.298051D-05	-0.142487D-04	-0.379523D-04	-0.180078D-07	0.177394D-04
34	0.365462D-04	-0.524930D-04	0.121471D-03	0.358521D-04	0.546143D-06
35	0.483982D-04	-0.208088D-04	0.108977D-03	0.391099D-04	-0.154228D-04
36	0.257986D-03	0.347955D-03	0.982481D-04	0.384499D-03	-0.210321D-04
37	-0.342674D-03	-0.294007D-03	0.386859D-04	-0.323317D-03	0.118840D-03
38	-0.393035D-04	-0.713496D-05	0.883322D-04	0.495718D-05	0.512793D-05
39	0.832667D-06	-0.105359D-04	-0.549625D-04	-0.144993D-04	-0.959554D-05
40	0.816598D-05	-0.390654D-05	-0.583025D-04	-0.173651D-04	-0.735551D-05
41	0.113207D-04	-0.385878D-05	-0.596732D-04	-0.230001D-04	-0.977712D-05
42	-0.175991D-04	0.582322D-04	-0.148692D-04	0.102205D-03	0.392177D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.679767D-03				
22	-0.137459D-03	0.652621D-03			
23	-0.300211D-04	0.352174D-04	0.732780D-03		
24	-0.239443D-04	0.149325D-04	0.119148D-03	0.338056D-03	
25	0.221906D-03	-0.480838D-04	-0.103071D-03	-0.980361D-04	0.129238D-02
26	-0.139754D-03	0.196820D-03	0.696515D-04	0.830406D-04	-0.137396D-03
27	-0.644839D-04	0.874873D-04	0.222556D-03	0.134534D-03	-0.395063D-03
28	0.286568D-04	-0.259934D-04	-0.206200D-03	-0.374884D-04	0.515555D-04
29	0.957976D-05	-0.238914D-04	-0.251875D-04	-0.784301D-04	0.282750D-04
30	-0.168810D-03	0.559641D-04	0.104522D-03	0.317125D-04	-0.300923D-03
31	0.801305D-04	-0.186277D-03	-0.155896D-04	-0.183010D-04	0.401847D-04
32	0.216976D-04	-0.449722D-04	-0.836245D-04	-0.752738D-04	0.166243D-03
33	-0.189978D-04	0.252813D-04	0.296303D-04	0.413834D-04	-0.418177D-04
34	-0.850767D-04	0.345613D-04	-0.211870D-04	0.200710D-04	-0.547219D-04
35	-0.719732D-04	0.545228D-04	-0.149821D-04	0.174795D-04	-0.815577D-04
36	0.423303D-04	-0.291021D-03	-0.685615D-04	0.180128D-03	0.232417D-04

37	-0.161058D-03	0.290058D-03	0.971479D-04	-0.256906D-03	-0.954055D-04
38	0.239388D-04	0.192517D-04	0.470584D-04	0.220110D-04	0.551523D-05
39	0.162433D-04	-0.228512D-04	-0.175370D-04	0.501665D-05	0.194556D-04
40	0.119079D-04	-0.129455D-04	-0.171065D-04	0.976438D-05	0.255074D-05
41	0.113020D-04	-0.148740D-05	-0.132013D-04	0.160516D-04	-0.110503D-04
42	0.398925D-05	-0.599249D-04	0.631236D-04	0.104039D-04	0.231012D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.650044D-03				
27	0.437862D-03	0.241818D-02			
28	-0.322469D-04	-0.687219D-04	0.686003D-03		
29	-0.368543D-04	-0.517644D-04	0.112364D-03	0.287867D-03	
30	0.842992D-04	0.150281D-03	-0.120974D-03	-0.785402D-04	0.112446D-02
31	-0.185731D-03	-0.123282D-03	0.743654D-04	0.730115D-04	-0.167901D-03
32	-0.234910D-03	-0.575796D-03	0.152300D-03	0.920820D-04	-0.231386D-03
33	0.832311D-04	0.153485D-03	-0.160446D-03	-0.131456D-03	0.271600D-03
34	0.227533D-04	-0.159450D-04	0.629783D-05	-0.256678D-05	0.188112D-04
35	0.495974D-04	-0.613057D-05	-0.851755D-06	0.169093D-05	0.382251D-04
36	0.544647D-04	-0.890429D-03	0.138229D-03	-0.164057D-03	-0.413510D-03
37	-0.130994D-03	0.566206D-03	-0.361078D-03	0.143430D-03	0.436168D-03
38	-0.431521D-04	-0.235851D-05	-0.546768D-04	-0.980703D-05	0.797262D-04
39	0.231665D-04	0.128283D-04	0.312720D-04	0.175527D-04	-0.360760D-04
40	0.239885D-04	0.346316D-04	0.253032D-04	0.173555D-04	-0.283096D-04
41	0.287449D-04	0.516384D-04	0.168495D-04	0.134349D-04	-0.193684D-04
42	-0.694160D-04	-0.179934D-03	-0.848745D-04	-0.199256D-04	0.506645D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.597738D-03				
32	0.241976D-03	0.115795D-02			
33	-0.349927D-03	-0.537285D-03	0.195422D-02		
34	0.157161D-04	-0.699918D-04	0.249834D-04	0.301903D-02	
35	0.230155D-05	-0.855991D-04	0.327342D-04	0.261216D-02	0.301597D-02
36	-0.477131D-03	-0.385811D-03	-0.861680D-03	0.406606D-03	0.270254D-03
37	0.403335D-03	0.326893D-03	0.117403D-02	-0.439208D-03	-0.328255D-03
38	0.605820D-06	-0.271026D-04	0.394627D-04	-0.270261D-04	-0.413046D-05
39	0.281706D-04	0.148972D-04	-0.147425D-04	0.543905D-05	0.310144D-05
40	0.341376D-04	0.483359D-05	-0.303671D-04	-0.139296D-04	-0.824469D-05
41	0.423933D-04	-0.102729D-04	-0.394495D-04	-0.440614D-04	-0.315947D-04

42 -0.588759D-04 -0.782149D-05 -0.285316D-04 0.508096D-04 0.123560D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.341976D+00				
37	-0.336769D+00	0.355013D+00			
38	0.185890D-02	-0.214404D-02	0.187354D-02		
39	-0.311366D-03	0.470008D-03	-0.720250D-04	0.108861D-02	
40	-0.431059D-03	0.575817D-03	-0.522700D-04	0.965212D-03	0.973852D-03
41	-0.611483D-03	0.759712D-03	-0.415963D-04	0.861110D-03	0.973583D-03
42	0.341096D-01	-0.263558D-01	-0.707279D-04	-0.259498D-05	-0.266596D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42
41	0.111673D-02	
42	-0.331111D-04	0.913554D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.256	1.000			
3	-0.113	-0.117	1.000		
4	0.079	0.190	-0.176	1.000	
5	0.124	0.081	-0.196	0.230	1.000
6	-0.056	-0.096	0.099	-0.234	-0.258
7	-0.021	-0.015	-0.039	-0.009	0.016
8	0.029	-0.003	0.025	-0.009	-0.019
9	0.016	0.020	0.030	0.024	0.047
10	-0.007	0.032	0.017	0.008	0.022
11	0.035	0.014	-0.014	-0.010	0.008
12	0.000	0.022	-0.011	0.010	-0.065
13	0.083	0.043	-0.018	0.001	0.033
14	-0.003	0.049	-0.006	-0.045	-0.041
15	0.018	0.006	0.044	-0.053	-0.022
16	-0.064	-0.046	0.002	0.011	-0.019
17	0.001	0.035	-0.013	0.000	0.022
18	-0.031	-0.002	-0.021	0.007	0.013
19	0.021	0.054	0.024	-0.015	-0.020

20	0.016	0.010	0.001	0.030	0.016
21	0.013	-0.019	0.013	0.002	-0.034
22	0.027	0.010	-0.007	0.032	0.067
23	0.038	0.028	0.009	-0.024	0.025
24	0.010	0.007	0.027	0.022	0.026
25	-0.003	-0.007	-0.015	0.022	-0.004
26	-0.005	-0.028	0.002	0.040	0.036
27	0.028	-0.006	-0.015	0.016	0.029
28	-0.015	-0.048	-0.010	-0.056	-0.023
29	-0.005	0.006	-0.019	-0.010	0.035
30	-0.007	-0.023	-0.015	0.013	0.042
31	-0.015	0.004	0.038	-0.032	-0.006
32	-0.051	0.007	0.064	-0.043	-0.010
33	-0.001	0.008	-0.028	0.026	-0.005
34	-0.008	-0.017	0.010	0.045	0.006
35	-0.002	-0.012	-0.004	0.035	0.005
36	-0.017	-0.049	-0.005	0.045	-0.016
37	0.020	0.057	0.000	-0.029	0.028
38	0.016	0.018	0.014	0.063	-0.012
39	-0.014	-0.002	-0.031	-0.007	0.047
40	-0.018	-0.009	-0.018	-0.006	0.053
41	-0.019	-0.012	-0.009	-0.004	0.052
42	0.014	-0.006	-0.005	0.071	0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.005	1.000			
8	-0.006	-0.116	1.000		
9	0.004	0.041	0.126	1.000	
10	-0.003	0.003	-0.033	0.068	1.000
11	-0.013	-0.138	-0.030	0.029	-0.123
12	0.015	-0.008	0.101	-0.107	0.128
13	-0.018	0.048	0.001	0.007	-0.012
14	0.039	0.035	-0.030	0.008	0.027
15	0.017	-0.012	-0.013	0.028	0.046
16	-0.025	0.002	0.002	0.011	0.002
17	-0.035	0.002	-0.015	-0.009	0.004
18	-0.029	0.023	-0.012	-0.012	0.013
19	0.020	-0.015	-0.004	0.003	-0.023
20	0.008	-0.012	0.050	0.014	-0.013
21	0.006	0.003	-0.060	-0.030	0.006

22	-0.043	0.012	0.025	-0.002	-0.015
23	-0.005	-0.008	0.002	-0.016	-0.019
24	-0.006	0.010	-0.017	0.029	0.014
25	-0.020	0.015	-0.041	-0.014	-0.024
26	-0.003	0.019	0.036	0.043	0.003
27	-0.009	0.044	0.010	0.029	0.027
28	0.033	-0.016	-0.033	0.031	0.032
29	-0.009	0.022	-0.031	0.006	-0.019
30	-0.005	0.004	0.038	0.002	0.044
31	0.004	-0.011	-0.049	-0.024	0.006
32	-0.006	0.015	-0.040	-0.028	0.001
33	0.029	0.028	0.033	0.007	0.007
34	-0.029	0.006	-0.025	-0.064	-0.003
35	-0.034	0.020	-0.024	-0.064	-0.008
36	0.025	-0.010	-0.027	0.043	0.002
37	-0.034	0.015	0.036	-0.051	-0.007
38	0.030	0.038	0.060	0.099	0.035
39	-0.052	0.004	0.021	-0.020	-0.030
40	-0.045	0.001	0.014	-0.020	-0.023
41	-0.031	-0.004	0.004	-0.015	-0.014
42	-0.010	-0.036	-0.103	0.029	-0.048

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.178	1.000			
13	-0.001	-0.018	1.000		
14	0.020	0.043	0.334	1.000	
15	-0.007	0.006	0.062	0.327	1.000
16	0.008	-0.032	-0.185	-0.175	-0.084
17	0.057	-0.024	-0.092	-0.142	-0.200
18	-0.027	0.045	0.023	0.016	-0.011
19	-0.024	0.008	0.115	0.105	0.023
20	-0.059	-0.012	0.029	0.053	0.207
21	0.030	0.010	-0.025	-0.014	-0.026
22	0.003	0.007	0.014	-0.032	0.026
23	0.010	0.034	0.207	0.103	0.017
24	-0.029	0.014	0.056	0.145	0.140
25	0.025	-0.021	-0.021	-0.067	-0.008
26	0.001	0.013	0.009	0.004	0.035
27	0.023	0.039	0.026	-0.014	-0.023
28	-0.009	-0.018	-0.109	-0.131	-0.041

29	0.051	0.031	-0.025	-0.083	-0.160
30	-0.002	-0.002	0.076	0.055	0.023
31	0.001	0.002	-0.015	-0.020	-0.034
32	-0.010	0.016	0.008	-0.036	-0.001
33	-0.003	0.002	0.026	0.009	0.002
34	-0.002	0.003	0.005	0.010	0.026
35	-0.008	0.020	0.001	-0.007	0.000
36	0.032	-0.023	0.038	0.036	0.007
37	-0.035	0.017	-0.043	-0.036	-0.001
38	0.081	0.041	0.065	0.075	0.021
39	-0.045	-0.009	0.017	0.017	0.022
40	-0.038	-0.004	0.001	-0.005	0.011
41	-0.024	0.003	-0.016	-0.017	0.010
42	0.000	-0.013	0.026	0.006	-0.005

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.299	1.000			
18	-0.166	-0.204	1.000		
19	-0.160	-0.055	0.033	1.000	
20	-0.060	-0.186	-0.011	0.239	1.000
21	0.040	0.160	-0.226	-0.097	-0.199
22	-0.016	-0.040	0.040	0.081	0.229
23	-0.141	-0.061	0.044	0.265	0.074
24	-0.048	-0.191	0.013	0.066	0.256
25	0.127	0.097	-0.251	-0.001	-0.028
26	-0.004	-0.041	0.049	0.117	0.145
27	-0.005	-0.029	0.073	0.024	0.032
28	0.135	0.050	-0.054	-0.241	-0.093
29	0.053	0.158	0.007	-0.051	-0.240
30	-0.066	-0.113	0.168	0.059	0.028
31	0.011	0.050	-0.001	-0.074	-0.151
32	0.007	0.005	-0.019	-0.018	-0.013
33	-0.002	-0.017	-0.017	0.000	0.030
34	0.024	-0.051	0.045	0.033	0.001
35	0.032	-0.020	0.040	0.036	-0.021
36	0.016	0.032	0.003	0.034	-0.003
37	-0.021	-0.026	0.001	-0.028	0.015
38	-0.033	-0.009	0.041	0.006	0.009
39	0.001	-0.017	-0.034	-0.022	-0.022
40	0.009	-0.007	-0.038	-0.028	-0.018



41	0.012	-0.006	-0.036	-0.035	-0.022
42	-0.007	0.032	-0.003	0.055	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.206	1.000			
23	-0.043	0.051	1.000		
24	-0.050	0.032	0.239	1.000	
25	0.237	-0.052	-0.106	-0.148	1.000
26	-0.210	0.302	0.101	0.177	-0.150
27	-0.050	0.070	0.167	0.149	-0.223
28	0.042	-0.039	-0.291	-0.078	0.055
29	0.022	-0.055	-0.055	-0.251	0.046
30	-0.193	0.065	0.115	0.051	-0.250
31	0.126	-0.298	-0.024	-0.041	0.046
32	0.024	-0.052	-0.091	-0.120	0.136
33	-0.016	0.022	0.025	0.051	-0.026
34	-0.059	0.025	-0.014	0.020	-0.028
35	-0.050	0.039	-0.010	0.017	-0.041
36	0.003	-0.019	-0.004	0.017	0.001
37	-0.010	0.019	0.006	-0.023	-0.004
38	0.021	0.017	0.040	0.028	0.004
39	0.019	-0.027	-0.020	0.008	0.016
40	0.015	-0.016	-0.020	0.017	0.002
41	0.013	-0.002	-0.015	0.026	-0.009
42	0.002	-0.025	0.024	0.006	0.007

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.349	1.000			
28	-0.048	-0.053	1.000		
29	-0.085	-0.062	0.253	1.000	
30	0.099	0.091	-0.138	-0.138	1.000
31	-0.298	-0.103	0.116	0.176	-0.205
32	-0.271	-0.344	0.171	0.159	-0.203
33	0.074	0.071	-0.139	-0.175	0.183
34	0.016	-0.006	0.004	-0.003	0.010
35	0.035	-0.002	-0.001	0.002	0.021

36	0.004	-0.031	0.009	-0.017	-0.021
37	-0.009	0.019	-0.023	0.014	0.022
38	-0.039	-0.001	-0.048	-0.013	0.055
39	0.028	0.008	0.036	0.031	-0.033
40	0.030	0.023	0.031	0.033	-0.027
41	0.034	0.031	0.019	0.024	-0.017
42	-0.028	-0.038	-0.034	-0.012	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.291	1.000			
33	-0.324	-0.357	1.000		
34	0.012	-0.037	0.010	1.000	
35	0.002	-0.046	0.013	0.866	1.000
36	-0.033	-0.019	-0.033	0.013	0.008
37	0.028	0.016	0.045	-0.013	-0.010
38	0.001	-0.018	0.021	-0.011	-0.002
39	0.035	0.013	-0.010	0.003	0.002
40	0.045	0.005	-0.022	-0.008	-0.005
41	0.052	-0.009	-0.027	-0.024	-0.017
42	-0.025	-0.002	-0.007	0.010	0.002

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	-0.967	1.000			
38	0.073	-0.083	1.000		
39	-0.016	0.024	-0.050	1.000	
40	-0.024	0.031	-0.039	0.937	1.000
41	-0.031	0.038	-0.029	0.781	0.934
42	0.610	-0.463	-0.017	-0.001	-0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42
41	1.000	
42	-0.010	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.017	13
200	1.013	38
300	1.005	13
400	1.004	36
500	1.010	38
600	1.008	38
700	1.002	6
800	1.002	42
900	1.002	42
1000	1.000	20

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	ACC	ACT	EAT	ALC
KESCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990

BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	1.000				
CHOICE15	0.990	0.990			
BULLY15	0.990	0.989	0.990		
PRESS15	0.990	0.989	0.989	0.990	
DUTIES15	0.991	0.990	0.990	0.990	0.991

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

#### UNIVARIATE SAMPLE STATISTICS

#### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/	Mean/	Skewness/	Minimum/	% with	Percentiles
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	Sample Size	Variance	Kurtosis	Maximum	Min/Max	20%/60%	40%/80%	Median
ACC		0.466	0.138	0.000	53.45%	0.000	0.000	0.000
	58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT		0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
	58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT		0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
	58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC		0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
	58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY		0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
	58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY		0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
	58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO		0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
	58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER		0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
	58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN		0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
	58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR		0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
	58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR		0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
	58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL		0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
	58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL		43.091	0.291	0.000	22.41%	0.000	15.000	35.000
	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

# MODEL FIT INFORMATION

Number of Free Parameters 80

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.166	0.052	0.000	0.059	0.266	*
CHOICE15	0.030	0.039	0.217	-0.047	0.107	
BULLY15	0.104	0.060	0.041	-0.011	0.226	
DUTIES15	-0.076	0.042	0.035	-0.164	0.006	
PRESS15	-0.047	0.042	0.127	-0.129	0.034	
KES15	0.815	0.095	0.000	0.618	1.004	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.079	0.135	*
CHOICE15	-0.097	0.019	0.000	-0.135	-0.061	*
BULLY15	0.072	0.014	0.000	0.046	0.100	*
PRESS15	0.062	0.018	0.001	0.028	0.100	*
DUTIES15	-0.073	0.018	0.000	-0.106	-0.036	*
PHY15 WITH						
CHOICE15	-0.098	0.028	0.000	-0.153	-0.046	*
BULLY15	0.039	0.019	0.024	0.000	0.077	*
PRESS15	0.120	0.028	0.000	0.067	0.172	*
DUTIES15	-0.057	0.026	0.018	-0.106	-0.005	*
CHOICE15 WITH						
BULLY15	-0.139	0.025	0.000	-0.189	-0.090	*
PRESS15	-0.194	0.037	0.000	-0.271	-0.124	*
DUTIES15	0.147	0.034	0.000	0.081	0.214	*



BULLY15 WITH						
PRESS15	0.200	0.026	0.000	0.149	0.253	*
DUTIES15	-0.175	0.025	0.000	-0.225	-0.127	*
PRESS15 WITH						
DUTIES15	-0.286	0.034	0.000	-0.357	-0.221	*
Means						
PHY15	0.000	0.025	0.498	-0.048	0.048	
KES15	0.000	0.017	0.491	-0.035	0.033	
CHOICE15	0.000	0.034	0.494	-0.067	0.067	
BULLY15	-0.001	0.024	0.487	-0.048	0.044	
PRESS15	-0.001	0.032	0.491	-0.066	0.060	
DUTIES15	0.002	0.030	0.474	-0.058	0.060	
Variances						
PHY15	0.705	0.029	0.000	0.649	0.762	*
KES15	0.314	0.014	0.000	0.290	0.343	*
CHOICE15	1.193	0.051	0.000	1.099	1.299	*
BULLY15	0.602	0.026	0.000	0.555	0.656	*
PRESS15	1.158	0.050	0.000	1.067	1.267	*
DUTIES15	1.030	0.043	0.000	0.954	1.119	*
Between Level						
PROG BY						
ACC	1.000	0.000	0.000	1.000	1.000	
ACT	3.393	0.736	0.000	2.279	5.111	*
EAT	3.970	0.778	0.000	2.792	5.820	*
ALC	2.638	0.787	0.000	1.383	4.501	*
PHY	3.545	0.745	0.000	2.425	5.360	*
PSY	3.636	0.783	0.000	2.446	5.642	*
SMO	4.119	0.949	0.000	2.635	6.479	*
TER	2.958	0.796	0.000	1.671	4.773	*
BEN	2.064	0.703	0.000	0.861	3.579	*
HPR	4.158	0.923	0.000	2.471	6.194	*
SPR	3.728	0.785	0.000	2.543	5.739	*
CUL	3.350	0.737	0.000	2.164	5.034	*
FEL	72.300	28.768	0.001	21.545	134.496	*
SING BY						
HPR	1.000	0.000	0.000	1.000	1.000	
KESCAT16 ON						

PROG	-0.595	0.388	0.051	-1.411	0.114	
PROGSQ	-2.413	1.279	0.029	-5.182	0.160	
SING	-0.174	0.227	0.193	-0.629	0.272	
SINGSQ	0.170	0.626	0.310	-1.305	1.359	
PROG WITH SING	-0.004	0.030	0.439	-0.061	0.062	
Intercepts						
ACC	0.464	0.071	0.000	0.328	0.606	*
ACT	0.123	0.142	0.211	-0.162	0.391	
EAT	0.318	0.150	0.026	-0.006	0.595	
ALC	0.053	0.157	0.367	-0.267	0.350	
PHY	0.203	0.147	0.077	-0.079	0.495	
PSY	0.099	0.150	0.239	-0.212	0.389	
SMO	0.317	0.179	0.038	-0.039	0.682	
TER	0.184	0.153	0.113	-0.116	0.488	
BEN	0.048	0.137	0.363	-0.231	0.313	
HPR	0.232	0.164	0.085	-0.114	0.540	
SPR	0.213	0.149	0.079	-0.088	0.517	
CUL	0.018	0.141	0.442	-0.258	0.301	
FEL	42.991	5.828	0.000	31.408	54.253	*
Thresholds						
KESCAT16\$1	-0.535	0.091	0.000	-0.724	-0.346	*
Variances						
PROG	0.060	0.020	0.000	0.035	0.109	*
SING	0.182	0.093	0.000	0.078	0.434	*
Residual Variances						
KESCAT16	0.013	0.024	0.000	0.000	0.090	*
ACC	0.251	0.054	0.000	0.176	0.378	*
ACT	0.454	0.098	0.000	0.302	0.695	*
EAT	0.294	0.073	0.000	0.188	0.467	*
ALC	0.881	0.181	0.000	0.618	1.342	*
PHY	0.475	0.106	0.000	0.319	0.720	*
PSY	0.416	0.098	0.000	0.278	0.658	*
SMO	0.795	0.182	0.000	0.542	1.239	*
TER	0.770	0.163	0.000	0.523	1.165	*
BEN	0.769	0.155	0.000	0.543	1.149	*
HPR	0.204	0.107	0.000	0.028	0.439	*
SPR	0.407	0.097	0.000	0.267	0.637	*
CUL	0.438	0.104	0.000	0.289	0.705	*

FEL	1475.245	297.582	0.000	1048.800	2209.826	*
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# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
PHY15		0.123	0.038	0.000	0.043	0.194	*
CHOICE15		0.029	0.038	0.217	-0.044	0.103	
BULLY15		0.071	0.041	0.041	-0.008	0.155	
DUTIES15		-0.068	0.038	0.035	-0.144	0.006	
PRESS15		-0.045	0.040	0.127	-0.122	0.033	
KES15		0.401	0.040	0.000	0.315	0.476	*
KES15	WITH						
PHY15		0.228	0.028	0.000	0.170	0.281	*
CHOICE15		-0.158	0.030	0.000	-0.216	-0.100	*
BULLY15		0.165	0.030	0.000	0.107	0.226	*
PRESS15		0.102	0.029	0.001	0.047	0.162	*
DUTIES15		-0.128	0.030	0.000	-0.184	-0.065	*
PHY15	WITH						
CHOICE15		-0.106	0.030	0.000	-0.164	-0.050	*
BULLY15		0.061	0.030	0.024	0.001	0.117	*
PRESS15		0.133	0.030	0.000	0.075	0.188	*
DUTIES15		-0.067	0.030	0.018	-0.124	-0.005	*
CHOICE15	WITH						
BULLY15		-0.164	0.029	0.000	-0.220	-0.108	*
PRESS15		-0.165	0.030	0.000	-0.227	-0.105	*
DUTIES15		0.133	0.030	0.000	0.073	0.189	*
BULLY15	WITH						
PRESS15		0.239	0.029	0.000	0.180	0.295	*
DUTIES15		-0.223	0.029	0.000	-0.279	-0.163	*
PRESS15	WITH						
DUTIES15		-0.261	0.028	0.000	-0.317	-0.206	*

Means						
PHY15	0.000	0.030	0.498	-0.057	0.057	
KES15	-0.001	0.030	0.491	-0.061	0.058	
CHOICE15	0.000	0.031	0.494	-0.061	0.061	
BULLY15	-0.001	0.030	0.487	-0.062	0.058	
PRESS15	-0.001	0.030	0.491	-0.061	0.055	
DUTIES15	0.002	0.030	0.474	-0.057	0.059	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PROG	BY					
ACC		0.441	0.061	0.000	0.327	0.566 *
ACT		0.779	0.066	0.000	0.633	0.882 *
EAT		0.877	0.043	0.000	0.763	0.936 *
ALC		0.574	0.107	0.000	0.324	0.747 *
PHY		0.788	0.061	0.000	0.640	0.878 *
PSY		0.815	0.060	0.000	0.667	0.897 *
SMO		0.755	0.074	0.000	0.569	0.860 *
TER		0.641	0.095	0.000	0.414	0.786 *
BEN		0.501	0.118	0.000	0.220	0.701 *
HPR		0.861	0.108	0.000	0.620	1.052 *
SPR		0.823	0.056	0.000	0.687	0.908 *
CUL		0.786	0.068	0.000	0.607	0.879 *
FEL		0.418	0.129	0.001	0.137	0.643 *
SING	BY					
HPR		0.363	0.088	0.000	0.224	0.568 *
KESCAT16	ON					
PROG		-0.437	0.235	0.051	-0.819	0.083
PROGSQ		-0.444	0.173	0.029	-0.660	0.028
SING		-0.219	0.249	0.193	-0.685	0.324
SINGSQ		0.112	0.234	0.310	-0.493	0.472
PROG	WITH					

SING	-0.037	0.238	0.439	-0.465	0.455	
Intercepts						
ACC	0.831	0.143	0.000	0.561	1.107	*
ACT	0.115	0.130	0.211	-0.144	0.367	
EAT	0.283	0.138	0.026	-0.006	0.550	
ALC	0.047	0.134	0.367	-0.214	0.308	
PHY	0.186	0.132	0.077	-0.075	0.447	
PSY	0.091	0.133	0.239	-0.176	0.353	
SMO	0.232	0.132	0.038	-0.026	0.495	
TER	0.162	0.132	0.113	-0.097	0.420	
BEN	0.047	0.132	0.363	-0.221	0.301	
HPR	0.197	0.139	0.085	-0.087	0.471	
SPR	0.188	0.134	0.079	-0.079	0.452	
CUL	0.017	0.130	0.442	-0.225	0.287	
FEL	1.005	0.169	0.000	0.654	1.340	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	
SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.110	0.152	0.000	0.002	0.534	*
ACC	0.806	0.055	0.000	0.680	0.893	*
ACT	0.393	0.099	0.000	0.223	0.599	*
EAT	0.232	0.073	0.000	0.123	0.418	*
ALC	0.670	0.116	0.000	0.442	0.895	*
PHY	0.380	0.093	0.000	0.229	0.590	*
PSY	0.336	0.094	0.000	0.196	0.556	*
SMO	0.429	0.106	0.000	0.261	0.676	*
TER	0.589	0.114	0.000	0.383	0.828	*
BEN	0.749	0.111	0.000	0.509	0.951	*
HPR	0.143	0.079	0.000	0.018	0.324	*
SPR	0.322	0.089	0.000	0.176	0.528	*
CUL	0.383	0.102	0.000	0.227	0.632	*
FEL	0.826	0.103	0.000	0.587	0.981	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%

KESCAT16	0.224	0.035	0.000	0.157	0.295
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Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.890	0.152	0.000	0.466	0.998
ACC	0.194	0.055	0.000	0.107	0.320
ACT	0.607	0.099	0.000	0.401	0.777
EAT	0.768	0.073	0.000	0.582	0.877
ALC	0.330	0.116	0.000	0.105	0.558
PHY	0.620	0.093	0.000	0.410	0.771
PSY	0.664	0.094	0.000	0.444	0.804
SMO	0.571	0.106	0.000	0.324	0.739
TER	0.411	0.114	0.000	0.172	0.617
BEN	0.251	0.111	0.000	0.049	0.491
HPR	0.857	0.079	0.000	0.676	0.982
SPR	0.678	0.089	0.000	0.472	0.824
CUL	0.617	0.102	0.000	0.368	0.773
FEL	0.174	0.103	0.000	0.019	0.413

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU  
PRESS15      DUTIES15

<u>0</u>	<u>0</u>
----------	----------

LAMBDA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

PRESS15

DUTIES15

KESCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

PRESS15

DUTIES15

PRESS15	<u>0</u>	<u>0</u>
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DUTIES15	0	0
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ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 1	<hr/> 2	<hr/> 3	<hr/> 4	

ALPHA	
PRESS15	DUTIES15
<hr/> 5	<hr/> 6

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 7	<hr/> 8	<hr/> 9	<hr/> 10	
KESCAT16	0	0	0	0	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA	
PRESS15	DUTIES15
<hr/> 11	<hr/> 12
KESCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 13	<hr/>	<hr/>	<hr/>
KESCAT16	0			
PHY15	0			



KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>80</u>

NU	KESCAT16	ACC	ACT	EAT	ALC
	<u>0</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>38</u>	<u>39</u>	<u>40</u>	<u>41</u>	<u>42</u>

NU	HPR	SPR	CUL	FEL
	<u>43</u>	<u>44</u>	<u>45</u>	<u>46</u>

LAMBDA				
PROG	SING	PROGSQ	SINGSQ	KESCAT16
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

KESCAT16	0	0	0	0	0
ACC	0	0	0	0	0
ACT	47	0	0	0	0
EAT	48	0	0	0	0
ALC	49	0	0	0	0
PHY	50	0	0	0	0
PSY	51	0	0	0	0
SMO	52	0	0	0	0
TER	53	0	0	0	0
BEN	54	0	0	0	0
HPR	55	0	0	0	0
SPR	56	0	0	0	0
CUL	57	0	0	0	0
FEL	58	0	0	0	0

THETA		ACC		ACT		EAT		ALC	
KESCAT16									
KESCAT16	0								
ACC	0	59							
ACT	0	0	60						
EAT	0	0	0	61					
ALC	0	0	0	0	62				
PHY	0	0	0	0	0				
PSY	0	0	0	0	0				
SMO	0	0	0	0	0				
TER	0	0	0	0	0				
BEN	0	0	0	0	0				
HPR	0	0	0	0	0				
SPR	0	0	0	0	0				
CUL	0	0	0	0	0				
FEL	0	0	0	0	0				

THETA		PSY		SMO		TER		BEN	
PHY									
PHY	63								
PSY	0	64							
SMO	0	0	65						
TER	0	0	0	66					
BEN	0	0	0	0	67				
HPR	0	0	0	0	0				

SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA			
	HPR	SPR	CUL	FEL
HPR	<u>68</u>			
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

	ALPHA				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

	BETA				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0	0	0
PROGSQ	0	0	0	0	0
SINGSQ	0	0	0	0	0
KESCAT16	72	73	74	75	0

	PSI				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	<u>76</u>				
SING	77	78			
PROGSQ	0	0	0		
SINGSQ	0	0	0	0	
KESCAT16	0	0	0	0	79

STARTING VALUES FOR WITHIN

TAU

KESCAT16

0.000

NU

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

0.000

0.000

0.000

0.000

0.000

NU

PRESS15

DUTIES15

0.000

0.000

LAMBDA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16

1.000

0.000

0.000

0.000

0.000

PHY15

0.000

1.000

0.000

0.000

0.000

KES15

0.000

0.000

1.000

0.000

0.000

CHOICE15

0.000

0.000

0.000

1.000

0.000

BULLY15

0.000

0.000

0.000

0.000

1.000

PRESS15

0.000

0.000

0.000

0.000

0.000

DUTIES15

0.000

0.000

0.000

0.000

0.000

LAMBDA

PRESS15

DUTIES15

KESCAT16

0.000

0.000

PHY15

0.000

0.000

KES15

0.000

0.000

CHOICE15

0.000

0.000

BULLY15

0.000

0.000

PRESS15

1.000

0.000

DUTIES15

0.000

1.000

THETA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.000
DUTIES15	0.000

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0.000	0.000	0.000	0.000	
PHY15	0.000	0.000	0.000	0.000	
KES15	0.000	0.000	0.000	0.000	
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	
PRESS15	0.000	0.000	0.000	0.000	
DUTIES15	0.000	0.000	0.000	0.000	

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000

PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000
	<u>          </u>
	0.516

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>          </u>
-0.352

NU	KESCAT16	ACC	ACT	EAT	ALC
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
	0.000	0.495	0.208	0.407	0.715

NU	PHY	PSY	SMO	TER	BEN
----	-----	-----	-----	-----	-----

	<u>0.303</u>	<u>0.210</u>	<u>0.237</u>	<u>0.333</u>	<u>0.205</u>
NU					
HPR		SPR	CUL	FEL	
	<u>0.416</u>	<u>0.415</u>	<u>-0.126</u>	<u>45.410</u>	
LAMBDA					
PROG		SING	PROGSQ	SINGSQ	KESCAT16
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>1.000</u>
ACC	1.000	0.000	0.000	0.000	0.000
ACT	1.000	0.000	0.000	0.000	0.000
EAT	1.000	0.000	0.000	0.000	0.000
ALC	1.000	0.000	0.000	0.000	0.000
PHY	1.000	0.000	0.000	0.000	0.000
PSY	1.000	0.000	0.000	0.000	0.000
SMO	1.000	0.000	0.000	0.000	0.000
TER	1.000	0.000	0.000	0.000	0.000
BEN	1.000	0.000	0.000	0.000	0.000
HPR	1.000	1.000	0.000	0.000	0.000
SPR	1.000	0.000	0.000	0.000	0.000
CUL	1.000	0.000	0.000	0.000	0.000
FEL	1.000	0.000	0.000	0.000	0.000
THETA					
KESCAT16		ACC	ACT	EAT	ALC
KESCAT16	<u>0.000</u>				
ACC	0.000	0.125			
ACT	0.000	0.000	0.415		
EAT	0.000	0.000	0.000	0.367	
ALC	0.000	0.000	0.000	0.000	0.694
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000

CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

	THETA PHY	PSY	SMO	TER	BEN
PHY	0.305				
PSY	0.000	0.499			
SMO	0.000	0.000	0.537		
TER	0.000	0.000	0.000	0.684	
BEN	0.000	0.000	0.000	0.000	0.316
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

	THETA HPR	SPR	CUL	FEL
HPR	0.372			
SPR	0.000	0.351		
CUL	0.000	0.000	0.344	
FEL	0.000	0.000	0.000	654.953

	ALPHA PROG	SING	PROGSQ	SINGSQ	KESCAT16
	0.000	0.000	0.000	0.000	0.000

	BETA PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	0.000	0.000	0.000	0.000	0.000
SING	0.000	0.000	0.000	0.000	0.000
PROGSQ	0.000	0.000	0.000	0.000	0.000
SINGSQ	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000

PSI



	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	1.000				
SING	0.000	1.000			
PROGSQ	0.000	0.000	0.000		
SINGSQ	0.000	0.000	0.000	0.000	
KESCAT16	0.000	0.000	0.000	0.000	1.000

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity

[illegible]

Parameter 77~IW(0.000,3)	infinity	infinity	infinity
Parameter 78~IW(1.000,3)	infinity	infinity	infinity
Parameter 79~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 80~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.629658D-03				
2	0.104181D-03	0.284961D-03			
3	-0.785829D-04	-0.112319D-03	0.115132D-02		
4	0.423574D-04	0.597331D-04	-0.945226D-04	0.557592D-03	
5	0.634137D-04	0.687879D-04	-0.161608D-03	0.181329D-03	0.104083D-02
6	-0.638445D-04	-0.654149D-04	0.126180D-03	-0.139817D-03	-0.244314D-03
7	-0.102215D-04	-0.982894D-05	-0.303543D-04	0.101728D-04	0.730762D-04
8	-0.517174D-04	0.717814D-05	-0.139102D-03	0.289817D-04	-0.134094D-03
9	0.104980D-04	0.576640D-05	-0.180765D-06	-0.165462D-04	0.298426D-04
10	0.190785D-04	0.636288D-04	-0.271122D-04	-0.474563D-05	0.545023D-04
11	-0.299684D-04	-0.276439D-04	0.981699D-04	0.153862D-05	-0.479203D-04
12	-0.728966D-05	0.949169D-05	0.118955D-03	0.679619D-05	-0.551116D-04
13	0.238006D-04	-0.185371D-04	-0.446684D-04	0.295176D-04	0.435443D-05
14	0.996944D-05	0.598532D-05	-0.238391D-05	0.827548D-05	-0.249776D-04
15	0.162728D-04	0.874439D-05	-0.799434D-05	0.781281D-05	-0.117757D-04
16	-0.155640D-04	0.324042D-05	0.124152D-04	0.923135D-06	-0.153241D-04
17	0.100138D-04	-0.405372D-06	-0.231662D-05	0.939470D-06	-0.109962D-04
18	0.523628D-04	-0.175790D-05	-0.240008D-04	0.285887D-04	0.516921D-04
19	-0.298027D-05	0.736046D-05	-0.869738D-05	0.150398D-04	-0.287233D-05
20	-0.329699D-05	0.383826D-05	-0.432515D-05	0.152172D-04	0.265591D-05
21	0.513519D-06	-0.204215D-05	0.959714D-05	-0.674181D-05	0.788850D-06
22	0.171840D-04	0.226916D-04	-0.298381D-04	0.293770D-04	-0.656038D-05
23	0.657160D-05	0.267052D-05	-0.316462D-05	0.189947D-04	0.166607D-04
24	0.338058D-05	0.178347D-05	0.587477D-05	-0.103545D-05	-0.124129D-05
25	-0.373205D-04	0.183877D-04	-0.312812D-04	-0.183547D-04	-0.158891D-04
26	0.160619D-04	0.909853D-05	-0.217761D-04	-0.206281D-05	-0.119803D-04
27	0.948828D-05	-0.716502D-05	-0.401155D-04	-0.146253D-04	0.245506D-04
28	0.793068D-05	-0.761445D-05	0.171402D-05	-0.225062D-04	-0.199007D-04
29	-0.529052D-05	-0.137101D-04	0.390669D-05	-0.348875D-05	-0.622691D-05
30	0.232369D-04	0.847478D-05	-0.220793D-04	0.124171D-04	0.285206D-05
31	-0.993522D-05	-0.124848D-04	0.477630D-04	-0.105946D-04	-0.327899D-04
32	-0.758535D-05	0.103871D-04	0.152936D-04	0.145171D-05	-0.803550D-04

33	-0.399771D-04	-0.520090D-05	-0.129010D-04	0.698274D-05	0.226255D-04
34	-0.232231D-04	-0.232118D-04	-0.134408D-04	0.400521D-04	-0.587582D-05
35	-0.415867D-04	0.276531D-04	0.827973D-04	-0.547692D-04	0.647880D-04
36	0.550317D-05	0.282713D-05	0.166275D-03	-0.255729D-04	0.665512D-04
37	0.115556D-03	-0.155927D-04	0.156842D-03	-0.632888D-04	-0.131125D-03
38	0.628408D-04	0.922905D-04	-0.911957D-05	0.344872D-04	0.746321D-04
39	0.784662D-04	0.438267D-04	0.325169D-04	-0.246723D-04	0.115624D-03
40	0.345087D-04	0.298386D-04	0.681952D-04	0.626877D-04	0.239113D-03
41	0.715972D-04	0.523378D-04	-0.130663D-03	0.875593D-05	0.690639D-04
42	-0.672582D-05	0.362678D-04	0.140567D-03	-0.508880D-04	-0.975305D-04
43	-0.413957D-04	0.786026D-04	0.361620D-04	0.100061D-04	0.656675D-04
44	0.978072D-04	0.512409D-04	0.145362D-03	0.338347D-06	0.119988D-03
45	-0.746947D-05	0.531784D-04	0.104914D-04	0.100286D-04	-0.106568D-04
46	0.520616D-02	0.170738D-03	0.469402D-02	-0.398570D-03	0.694672D-02
47	0.183226D-03	0.695018D-03	-0.958384D-03	0.565514D-04	0.758606D-03
48	0.275535D-03	0.605305D-03	-0.149153D-02	-0.467058D-04	-0.108809D-03
49	-0.364853D-03	0.468612D-03	-0.111099D-02	0.379325D-03	0.542911D-03
50	0.654352D-03	0.643219D-03	-0.803066D-03	0.639480D-03	-0.326770D-03
51	0.497558D-03	0.696318D-03	-0.101058D-02	0.300889D-03	0.231307D-03
52	0.438024D-06	0.886630D-03	-0.110722D-02	-0.623933D-04	-0.577192D-04
53	0.321670D-03	0.706674D-03	-0.146107D-02	0.418491D-03	0.705076D-03
54	-0.395436D-04	0.376297D-03	-0.491793D-03	0.286481D-03	0.317425D-03
55	0.391808D-03	0.903405D-03	-0.109638D-02	0.954206D-04	0.104218D-03
56	0.323477D-03	0.800754D-03	-0.158914D-02	0.337674D-03	0.906127D-04
57	0.495084D-03	0.100680D-02	-0.132583D-02	0.510538D-03	0.817356D-03
58	-0.556992D-02	-0.446473D-02	-0.207246D-01	0.374565D-01	-0.271373D-01
59	0.462620D-04	0.273155D-05	-0.824235D-05	0.484547D-04	0.626620D-05
60	-0.325610D-04	0.716330D-04	-0.449563D-04	-0.466163D-04	0.572008D-04
61	0.127391D-03	-0.344180D-04	-0.942830D-04	0.301192D-04	0.849539D-04
62	0.652596D-04	0.383917D-04	0.683570D-04	-0.994099D-04	0.208729D-03
63	-0.146579D-04	0.151966D-04	0.624193D-04	-0.961139D-04	-0.111284D-04
64	-0.960179D-04	-0.716375D-05	-0.347623D-04	-0.760665D-07	0.121026D-04
65	0.262513D-04	-0.778712D-04	-0.164644D-04	0.975868D-04	-0.444768D-04
66	-0.739102D-05	0.288280D-05	0.183297D-03	-0.902990D-04	-0.235335D-03
67	-0.698715D-04	-0.799096D-04	0.411380D-04	-0.291900D-04	-0.804359D-04
68	-0.119417D-03	-0.344288D-04	-0.182836D-04	-0.149772D-04	0.156218D-03
69	0.185031D-03	0.763090D-04	0.661255D-05	0.466674D-04	0.290822D-04
70	0.252677D-04	0.291225D-04	0.136694D-03	0.725622D-04	0.960570D-04
71	0.923913D-01	0.259611D+00	-0.281139D+00	0.146699D+00	0.644719D+00
72	-0.128758D-03	-0.746016D-03	0.242330D-03	0.116262D-03	-0.135136D-03
73	0.892424D-04	0.180079D-03	0.106828D-03	-0.355663D-04	0.288631D-03
74	-0.931158D-03	-0.379762D-03	0.103686D-02	0.213629D-03	0.852456D-03
75	-0.126939D-03	0.148521D-03	-0.821177D-04	-0.355558D-03	-0.690250D-03
76	-0.141077D-04	-0.124305D-04	0.254813D-04	-0.138118D-04	0.329026D-05

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77 -0.101334D-04 -0.740129D-05 -0.259271D-05 -0.184698D-04 -0.105945D-05
78  0.531698D-04  0.406481D-04  0.646985D-04 -0.289000D-04 -0.571111D-04
79  0.481567D-05 -0.827999D-05 -0.104081D-04 -0.348333D-04  0.416430D-06
80 -0.660839D-04  0.472870D-04  0.172411D-04 -0.144519D-04 -0.273653D-04

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ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.914569D-03				
7	-0.116589D-04	0.274454D-02			
8	-0.131823D-04	-0.501308D-03	0.894816D-02		
9	0.845826D-06	0.428586D-04	0.331582D-03	0.154181D-02	
10	-0.871107D-04	0.154259D-03	-0.294518D-03	0.236027D-03	0.362118D-02
11	0.483995D-04	-0.237072D-03	-0.641156D-04	0.165944D-03	-0.322466D-03
12	-0.909851D-05	-0.383882D-04	0.294604D-03	-0.161178D-03	0.297716D-03
13	0.408735D-06	-0.283645D-04	-0.569555D-04	-0.398800D-04	0.115294D-04
14	-0.752776D-05	-0.279661D-05	0.213324D-04	-0.324556D-04	0.272948D-04
15	-0.166761D-04	-0.849693D-05	0.107413D-04	-0.102975D-04	0.228284D-05
16	0.229822D-04	0.197783D-04	-0.128672D-03	0.159854D-04	0.179626D-04
17	-0.135246D-04	0.304508D-04	0.122501D-04	-0.133380D-04	0.714115D-05
18	0.322015D-04	-0.473554D-04	0.555974D-04	-0.897915D-04	-0.718924D-04
19	-0.124877D-04	0.973915D-05	0.673046D-04	-0.986988D-05	0.196968D-04
20	-0.903617D-05	0.199950D-05	0.399134D-04	-0.859227D-05	0.136998D-04
21	-0.926535D-05	0.227030D-04	-0.356092D-05	0.204603D-04	0.500526D-04
22	-0.144052D-04	0.178622D-04	0.141296D-03	-0.156135D-04	0.102329D-04
23	-0.168254D-04	0.385538D-04	0.450863D-04	-0.723139D-05	0.261626D-04
24	-0.344963D-04	-0.798092D-05	0.133535D-04	-0.104935D-04	-0.237054D-04
25	0.164025D-04	0.118327D-04	0.344102D-04	0.240083D-04	0.620543D-04
26	-0.241043D-04	-0.176648D-04	0.659288D-04	-0.550839D-05	-0.252760D-04
27	-0.642723D-05	-0.464457D-05	-0.535209D-04	0.553770D-04	-0.799432D-04
28	0.234111D-05	-0.165951D-04	-0.314535D-04	0.528544D-04	0.397880D-04
29	0.116804D-05	0.307630D-05	0.217873D-05	-0.603903D-07	0.169679D-05
30	0.318903D-04	0.868884D-05	0.863559D-06	-0.233987D-04	-0.665326D-04
31	0.369677D-04	-0.107277D-04	-0.124843D-04	0.327017D-04	-0.288369D-04
32	0.348407D-04	-0.471523D-04	0.567519D-04	0.323364D-04	0.824922D-04
33	0.364633D-05	0.442424D-04	-0.552912D-05	-0.290420D-04	-0.907540D-04
34	0.939469D-04	0.227383D-03	-0.179562D-03	-0.509157D-04	0.647236D-04
35	0.114564D-03	-0.102348D-03	-0.168226D-03	0.864760D-04	-0.142498D-03
36	0.168660D-03	-0.147058D-04	-0.790709D-04	0.211978D-03	-0.578856D-03
37	0.128797D-03	-0.432982D-04	-0.163835D-03	0.157183D-03	-0.484927D-03
38	0.173774D-03	-0.229684D-03	-0.616128D-04	0.117455D-03	-0.109618D-03
39	0.164382D-03	-0.116691D-03	0.403103D-04	0.290639D-03	-0.174267D-03
40	0.211778D-03	0.152141D-03	0.264724D-03	0.378026D-03	-0.387505D-03

41	0.770955D-04	-0.338050D-03	-0.277024D-03	0.434057D-04	-0.318631D-03
42	0.182241D-03	0.677041D-04	0.151945D-04	0.258317D-03	0.240820D-03
43	0.262104D-03	-0.348915D-03	-0.643353D-05	0.282308D-03	-0.269109D-03
44	0.708592D-04	-0.189036D-03	-0.210805D-04	0.169522D-03	-0.294344D-03
45	0.790420D-04	-0.160260D-03	0.127874D-03	0.422002D-04	-0.413249D-03
46	-0.221411D-02	0.348039D-02	-0.541429D-02	0.404015D-02	-0.711599D-02
47	-0.125845D-02	0.466197D-03	-0.108027D-02	0.585546D-04	0.234970D-02
48	-0.134887D-02	-0.801538D-03	-0.167500D-02	-0.736778D-03	0.353044D-02
49	-0.660873D-03	-0.103084D-02	0.485718D-04	0.234055D-03	0.139866D-02
50	-0.117073D-02	-0.387093D-03	0.202533D-03	-0.688101D-03	0.318332D-02
51	-0.119018D-02	-0.113234D-02	-0.136106D-03	-0.183338D-02	0.384879D-02
52	-0.845664D-03	0.277206D-03	-0.184873D-02	-0.109048D-02	0.293320D-02
53	-0.145294D-02	0.746343D-03	-0.889663D-04	-0.903242D-03	0.261214D-02
54	-0.474898D-04	0.101051D-02	0.946296D-04	-0.235816D-03	-0.503057D-03
55	-0.155282D-02	0.684712D-03	-0.992992D-03	-0.284329D-03	0.424900D-02
56	-0.147418D-02	0.726190D-03	-0.141993D-02	-0.811264D-03	0.237942D-02
57	-0.176007D-02	-0.172969D-03	-0.184661D-02	-0.106446D-02	0.317342D-02
58	0.114761D-02	0.192927D-01	0.854474D-01	0.136902D-02	0.595254D-01
59	0.137282D-04	-0.140813D-03	-0.149976D-03	-0.535405D-04	-0.810560D-04
60	0.208060D-04	-0.118350D-03	0.794504D-04	-0.150435D-03	-0.590860D-04
61	-0.121066D-03	-0.802035D-04	-0.185483D-03	-0.791397D-04	0.709327D-04
62	0.393760D-04	0.154957D-04	0.210080D-03	-0.684691D-04	0.132924D-03
63	-0.116907D-04	0.358662D-04	-0.111501D-03	0.737301D-04	0.150102D-03
64	-0.658448D-04	0.197174D-04	0.211180D-03	0.868678D-04	-0.193634D-03
65	-0.718306D-04	0.282288D-03	-0.651308D-03	0.290257D-04	0.983644D-04
66	0.133874D-03	0.122846D-03	0.405923D-03	-0.286167D-05	-0.112014D-03
67	-0.877751D-05	0.131332D-03	-0.207577D-03	-0.200197D-04	0.339033D-03
68	-0.299324D-04	-0.328519D-04	0.336427D-03	0.127168D-04	0.363998D-04
69	-0.928118D-04	-0.132936D-03	-0.181350D-03	-0.437928D-04	-0.174881D-04
70	-0.377821D-05	-0.102100D-04	0.688713D-04	-0.153924D-04	-0.179650D-04
71	-0.558668D-01	-0.170617D+00	-0.105633D+01	0.149667D+00	-0.292623D+00
72	0.366589D-03	0.537804D-04	0.362532D-03	-0.992315D-03	-0.100953D-02
73	0.853311D-04	-0.255940D-03	-0.160710D-02	0.576507D-04	0.290551D-03
74	0.108746D-03	-0.153455D-03	-0.472677D-02	-0.252389D-04	-0.217813D-02
75	0.174230D-03	0.868192D-03	0.159533D-02	-0.107915D-02	-0.982824D-03
76	0.353931D-04	-0.847404D-07	0.369437D-04	0.485549D-04	-0.739890D-04
77	0.860687D-06	-0.316511D-04	0.773933D-04	0.854469D-07	-0.300652D-04
78	0.319626D-04	0.206783D-03	-0.464612D-03	-0.388406D-04	0.623342D-07
79	0.273818D-04	-0.404119D-04	0.175151D-03	0.341286D-04	0.744439D-05
80	0.351197D-04	-0.529859D-04	-0.709976D-03	-0.267368D-04	-0.221461D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

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11	0.177076D-02				
12	0.399552D-03	0.180458D-02			
13	0.312025D-04	0.840884D-05	0.845202D-03		
14	-0.979648D-06	0.144119D-04	0.137289D-03	0.204582D-03	
15	0.104624D-04	0.792120D-05	0.163511D-04	0.500125D-04	0.184057D-03
16	-0.254143D-04	-0.334530D-04	-0.126647D-03	-0.669423D-04	-0.120821D-04
17	-0.575418D-04	-0.180656D-04	-0.718298D-05	-0.297922D-04	-0.532870D-04
18	0.985724D-05	-0.210559D-04	0.304678D-04	0.657932D-05	0.188756D-04
19	-0.854579D-05	-0.818650D-05	0.325553D-04	0.418164D-04	0.658958D-05
20	0.671515D-05	0.235685D-04	0.672987D-05	0.998890D-05	0.394877D-04
21	-0.592753D-04	-0.265876D-04	-0.177727D-05	-0.614864D-05	-0.217205D-04
22	-0.118397D-04	0.524176D-05	-0.424542D-04	-0.239243D-05	0.888141D-05
23	0.390663D-04	-0.485923D-05	0.124952D-03	0.615218D-04	0.156362D-04
24	0.272391D-04	0.915676D-05	0.218556D-04	0.447595D-04	0.429112D-04
25	-0.408685D-04	0.716190D-04	-0.644928D-05	0.708598D-06	0.708665D-05
26	0.204436D-04	0.373265D-05	-0.108195D-05	-0.577602D-05	0.772084D-05
27	0.631743D-04	-0.993734D-04	0.367906D-04	0.213620D-04	0.306822D-04
28	0.688643D-05	-0.259629D-04	-0.531436D-04	-0.478449D-04	-0.676904D-05
29	-0.132923D-04	-0.153881D-04	0.204516D-04	-0.233144D-04	-0.448850D-04
30	-0.448737D-04	-0.248234D-04	0.607456D-05	-0.907832D-05	0.355244D-05
31	-0.144988D-05	-0.331688D-04	0.597544D-05	0.349941D-05	-0.136469D-04
32	-0.210507D-04	0.273819D-04	-0.636821D-05	-0.955926D-05	-0.841109D-05
33	0.320186D-04	0.278685D-04	0.177116D-04	-0.121345D-04	0.135873D-04
34	0.124563D-03	0.172730D-03	-0.132395D-04	-0.347290D-04	-0.293129D-04
35	0.107158D-03	0.686509D-04	-0.476567D-04	0.611245D-05	-0.751631D-05
36	0.217725D-03	-0.136777D-04	-0.154385D-03	-0.504579D-04	0.159198D-04
37	0.262493D-03	0.124329D-03	-0.166766D-04	-0.618050D-04	-0.371165D-04
38	0.294725D-03	0.136956D-03	-0.165636D-03	-0.389131D-04	-0.198820D-05
39	0.279110D-03	0.267316D-04	-0.181796D-03	-0.775124D-04	0.382798D-04
40	0.182955D-03	-0.230020D-03	-0.203449D-03	0.224367D-04	0.163998D-04
41	0.296804D-03	0.309603D-03	-0.576981D-04	-0.931677D-04	-0.360699D-04
42	0.287724D-03	0.656968D-04	-0.124599D-03	-0.226177D-04	0.370340D-04
43	0.247150D-03	0.336138D-04	-0.174247D-03	-0.765064D-04	-0.160244D-04
44	0.108872D-03	-0.266385D-04	-0.856705D-04	-0.997470D-04	0.240087D-04
45	0.125194D-03	0.171911D-03	-0.164733D-03	-0.364404D-04	-0.526638D-05
46	0.199705D-02	0.176125D-02	-0.961215D-02	-0.438482D-02	-0.229863D-02
47	0.322484D-03	-0.853886D-03	-0.989769D-04	-0.434099D-04	-0.780874D-03
48	0.118264D-03	-0.908691D-03	0.439431D-03	0.763077D-04	-0.567073D-03
49	0.359519D-03	-0.134116D-02	-0.188936D-03	-0.383882D-03	-0.361487D-03
50	-0.148692D-02	-0.161060D-02	0.305538D-03	0.156496D-03	-0.341108D-03
51	-0.352760D-04	-0.778685D-03	0.752073D-03	0.235311D-03	-0.174085D-03
52	-0.724838D-03	-0.243087D-02	-0.208819D-03	0.238108D-03	-0.168362D-03
53	-0.990139D-03	-0.148395D-02	0.178665D-03	0.218095D-03	-0.331169D-03

54	-0.402770D-03	-0.130581D-02	0.921348D-04	0.175877D-03	-0.786853D-04
55	-0.124041D-02	-0.156185D-02	-0.107564D-03	-0.132433D-03	-0.287675D-03
56	-0.293453D-03	-0.142040D-02	0.915318D-04	0.351440D-05	-0.543131D-03
57	-0.228722D-03	-0.889210D-03	-0.552163D-03	0.622756D-04	-0.161566D-03
58	-0.131056D-01	-0.311446D-01	0.217208D-01	-0.160734D-01	-0.272693D-01
59	0.138248D-03	0.509529D-04	0.147311D-04	0.430221D-04	0.199455D-04
60	-0.163004D-03	0.458209D-04	0.817664D-05	-0.441631D-04	-0.351837D-04
61	-0.124066D-03	0.874028D-04	0.632943D-06	0.563046D-05	-0.139734D-04
62	-0.621369D-04	0.127865D-03	-0.507774D-04	0.710922D-05	-0.513133D-05
63	0.158097D-03	0.115442D-03	0.316054D-04	0.385816D-04	0.119657D-04
64	-0.450685D-04	-0.146991D-03	-0.108898D-03	-0.736588D-04	-0.346615D-05
65	0.307345D-03	-0.757758D-04	0.214475D-03	-0.268987D-04	-0.432438D-04
66	0.197203D-03	-0.107317D-03	0.125138D-04	-0.570407D-04	0.238147D-05
67	-0.171143D-03	-0.603118D-04	0.466115D-04	0.838743D-05	0.767651D-04
68	0.950761D-04	0.117913D-03	0.254158D-03	0.620219D-04	0.466281D-05
69	-0.441321D-05	0.143152D-04	0.921669D-04	0.220424D-04	0.180740D-04
70	-0.297816D-05	0.516048D-04	0.811701D-04	-0.262167D-04	0.230148D-04
71	0.833721D+00	0.214895D+00	0.228883D+00	0.634613D-01	-0.114314D+00
72	-0.786124D-03	-0.314130D-03	-0.303343D-03	0.429174D-04	-0.181468D-04
73	0.151501D-03	0.171095D-03	-0.602106D-04	-0.188931D-03	-0.119268D-03
74	0.284315D-02	-0.458830D-03	-0.298968D-03	-0.289570D-04	-0.690316D-04
75	-0.658272D-03	0.243103D-04	0.501013D-03	0.145535D-03	0.384360D-03
76	0.381982D-04	0.111000D-04	0.572959D-05	-0.243251D-05	0.541011D-05
77	0.368316D-04	0.258234D-04	-0.172935D-04	0.107585D-05	-0.658252D-05
78	0.489183D-04	-0.111928D-03	-0.104175D-03	-0.137604D-04	-0.151255D-04
79	0.605517D-04	0.240605D-04	-0.451824D-05	0.664203D-05	0.346680D-05
80	0.392275D-04	0.391592D-04	0.965174D-05	-0.456388D-04	0.127405D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.772842D-03				
17	0.116910D-03	0.363648D-03			
18	-0.235504D-03	-0.206928D-03	0.259650D-02		
19	-0.976945D-04	-0.136183D-04	-0.125479D-04	0.377226D-03	
20	-0.246163D-04	-0.476348D-04	0.285739D-04	0.582326D-04	0.183147D-03
21	0.778187D-04	0.947717D-04	-0.310218D-03	-0.527303D-04	-0.564481D-04
22	-0.574026D-05	-0.249519D-04	0.405106D-04	0.411177D-04	0.807248D-04
23	-0.140541D-03	-0.266744D-04	0.136735D-04	0.131640D-03	0.181425D-04
24	-0.361382D-04	-0.647460D-04	0.281895D-04	0.209794D-04	0.629470D-04
25	0.161369D-03	0.119026D-03	-0.460317D-03	0.528101D-05	-0.886395D-05
26	-0.201224D-04	-0.277861D-04	0.707716D-04	0.663923D-04	0.412288D-04
27	-0.113363D-04	-0.372211D-04	0.711624D-04	0.186755D-04	-0.253174D-07



28	0.101993D-03	0.307347D-04	-0.932708D-05	-0.120520D-03	-0.123501D-04
29	0.305906D-04	0.520296D-04	-0.205989D-04	-0.200197D-04	-0.447225D-04
30	-0.123198D-03	-0.891499D-04	0.326635D-03	0.285804D-04	0.112223D-04
31	0.213326D-04	0.116576D-04	-0.921073D-04	-0.228614D-04	-0.449456D-04
32	0.484446D-04	0.441959D-04	-0.137108D-03	-0.289078D-04	-0.201364D-04
33	-0.335022D-04	-0.316466D-04	0.133270D-03	0.139331D-04	0.159200D-04
34	-0.282420D-04	-0.290595D-04	-0.103166D-03	0.144100D-04	-0.823389D-05
35	-0.364755D-04	-0.811066D-04	-0.254884D-03	-0.898334D-04	-0.781249D-04
36	0.525089D-05	-0.496342D-04	-0.208252D-03	-0.847000D-04	-0.821330D-04
37	0.382386D-04	-0.520371D-04	0.115127D-04	-0.197474D-03	-0.117587D-03
38	-0.103638D-03	0.307780D-04	-0.186319D-03	-0.419717D-04	-0.434955D-04
39	0.378363D-04	-0.176034D-04	-0.604550D-04	-0.140112D-03	-0.828110D-04
40	0.875285D-04	-0.911924D-04	0.102307D-04	-0.857486D-04	-0.187857D-04
41	0.424519D-04	0.291166D-04	-0.190740D-03	-0.129901D-03	-0.773839D-04
42	-0.143473D-03	-0.111594D-03	-0.192812D-03	-0.472429D-04	0.198204D-04
43	-0.272720D-04	-0.516798D-04	-0.147990D-03	-0.134908D-03	-0.136222D-03
44	-0.210243D-04	-0.753898D-04	-0.802199D-04	-0.643293D-04	-0.221107D-04
45	0.873146D-04	-0.562306D-04	-0.829524D-04	-0.722695D-04	-0.812491D-04
46	-0.708075D-03	0.409151D-03	0.389370D-03	-0.617769D-03	-0.502894D-03
47	0.414111D-03	0.610906D-03	0.673003D-03	0.221068D-03	0.109919D-03
48	0.580448D-03	0.448239D-03	0.914781D-03	0.321945D-04	-0.287234D-04
49	-0.942937D-04	0.809948D-04	0.113065D-02	0.239449D-03	-0.296120D-03
50	0.360268D-03	0.217204D-03	0.132142D-02	0.136647D-03	-0.212190D-03
51	-0.660379D-04	0.181760D-03	0.902482D-03	0.283502D-03	0.191150D-03
52	0.600579D-03	0.140785D-03	0.119043D-03	0.177165D-03	0.619134D-04
53	0.963039D-05	0.420776D-03	-0.103660D-03	-0.163093D-03	-0.498718D-04
54	-0.206235D-03	0.501243D-03	0.119891D-02	0.415782D-03	-0.111319D-03
55	0.123129D-04	0.815082D-03	0.803710D-04	0.500804D-03	-0.248150D-03
56	0.104043D-04	0.434194D-03	0.124491D-02	-0.430903D-04	0.161673D-03
57	0.105184D-03	0.311726D-03	0.441579D-04	0.226949D-03	-0.815162D-04
58	0.100553D-01	0.143824D-01	-0.215019D-01	-0.296245D-02	0.519141D-02
59	-0.628431D-04	0.936835D-05	0.109256D-03	0.185595D-04	0.135450D-05
60	-0.424687D-04	0.363132D-04	-0.660615D-04	-0.245419D-05	-0.395027D-04
61	-0.604037D-04	-0.195644D-05	0.242750D-04	0.431231D-05	0.638753D-05
62	0.169121D-04	-0.591029D-04	0.399100D-04	0.907233D-04	0.143300D-04
63	-0.389494D-04	-0.483438D-04	-0.106654D-03	-0.462047D-04	-0.855638D-05
64	0.137579D-03	0.172747D-04	0.273251D-03	0.137788D-04	0.420847D-04
65	-0.789857D-04	0.124348D-03	0.703178D-04	-0.335991D-05	-0.758976D-04
66	-0.154110D-03	-0.107180D-03	0.371365D-03	-0.228207D-03	-0.668530D-04
67	-0.287716D-04	0.437161D-04	-0.196255D-03	-0.170199D-03	0.838467D-05
68	-0.475938D-04	0.165172D-04	-0.445234D-04	0.163500D-04	-0.839447D-04
69	-0.463451D-04	-0.551950D-04	0.122574D-03	0.962974D-04	0.137063D-04
70	-0.162923D-04	-0.312230D-04	0.455511D-04	-0.657671D-04	-0.339656D-04
71	-0.495288D-01	-0.106263D-01	-0.432844D+00	-0.216589D-01	0.213206D-01

72	-0.287377D-03	0.194113D-03	0.451622D-03	0.666681D-04	-0.832894D-04
73	0.413004D-04	0.438709D-04	0.447676D-04	0.102221D-04	-0.779285D-04
74	0.378753D-03	-0.859608D-03	-0.151973D-02	0.922114D-03	0.863089D-03
75	-0.311688D-03	0.145485D-03	0.576414D-03	0.621160D-04	-0.222309D-03
76	0.333105D-05	-0.122536D-04	0.439994D-05	-0.381059D-05	-0.397733D-05
77	-0.190744D-07	-0.407948D-04	0.138917D-04	0.582063D-06	0.245595D-04
78	-0.679690D-04	-0.190590D-04	-0.452248D-04	-0.570116D-04	0.352655D-04
79	0.110143D-04	-0.202858D-04	-0.485637D-04	0.116275D-04	0.251903D-05
80	0.234228D-05	0.350513D-04	0.113545D-03	0.199117D-05	-0.119574D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.648187D-03				
22	-0.150902D-03	0.664127D-03			
23	-0.123159D-04	0.225383D-04	0.756536D-03		
24	-0.981636D-05	0.367140D-04	0.122541D-03	0.333423D-03	
25	0.223306D-03	-0.331005D-04	-0.123124D-03	-0.121750D-03	0.136522D-02
26	-0.110295D-03	0.229905D-03	0.255549D-04	0.913822D-04	-0.189870D-03
27	-0.638685D-04	0.388594D-04	0.235460D-03	0.185654D-03	-0.431545D-03
28	0.193015D-04	-0.190175D-04	-0.161554D-03	-0.474617D-04	0.957216D-04
29	0.243990D-04	-0.248505D-04	-0.144233D-04	-0.100590D-03	0.134682D-04
30	-0.182988D-03	0.384521D-04	0.638854D-05	0.409547D-04	-0.350794D-03
31	0.117035D-03	-0.186307D-03	-0.837756D-05	-0.405691D-04	0.479539D-04
32	0.838741D-04	-0.578188D-04	-0.630854D-04	-0.102731D-03	0.249018D-03
33	-0.512039D-04	0.627090D-04	0.188333D-04	0.127752D-04	-0.107778D-04
34	0.501684D-04	0.129994D-04	0.113124D-03	0.819818D-05	0.153483D-04
35	0.189808D-04	-0.252691D-04	-0.130060D-03	-0.284397D-04	0.179163D-03
36	0.312409D-04	-0.435126D-04	0.205528D-04	0.308027D-04	-0.267908D-04
37	-0.153357D-03	0.886376D-04	-0.706672D-05	-0.297245D-04	-0.512008D-04
38	0.681865D-04	0.745042D-04	-0.160264D-04	-0.175536D-04	0.425025D-05
39	0.241226D-04	0.361574D-04	-0.115179D-03	-0.770936D-05	-0.502064D-04
40	-0.165579D-03	-0.327432D-04	-0.376080D-04	0.791687D-04	-0.128876D-03
41	-0.372348D-04	0.137976D-03	-0.417249D-04	0.105066D-04	-0.130501D-03
42	-0.116189D-03	0.572263D-05	0.866063D-04	0.234185D-06	-0.251578D-04
43	0.732697D-04	-0.504218D-04	-0.118516D-05	-0.291598D-04	-0.377230D-04
44	0.135566D-04	0.176440D-05	-0.541361D-04	0.824739D-05	0.134130D-03
45	-0.725011D-04	-0.791076D-04	0.135561D-04	0.395143D-05	-0.893727D-04
46	-0.283175D-02	0.721580D-02	-0.186378D-02	0.170922D-02	-0.710384D-02
47	-0.253371D-03	0.122850D-03	-0.556301D-03	-0.439082D-03	-0.230193D-03
48	-0.270027D-03	-0.726095D-04	-0.358259D-03	-0.459848D-04	-0.110889D-02
49	-0.108458D-02	0.531298D-03	0.104645D-03	-0.192238D-03	-0.615847D-03
50	0.213743D-04	0.137217D-03	-0.661118D-03	0.847869D-04	-0.729153D-03

51	-0.106176D-02	0.623974D-03	-0.316710D-03	-0.126931D-03	-0.202498D-02
52	-0.107446D-02	-0.267167D-03	-0.347920D-03	0.733342D-04	-0.409664D-03
53	-0.184959D-03	0.352675D-03	0.301648D-03	0.565838D-03	-0.180935D-02
54	0.125163D-04	-0.477003D-03	-0.252205D-03	0.278287D-04	-0.475596D-03
55	-0.310408D-04	0.247932D-03	0.147561D-04	0.713851D-04	-0.819026D-03
56	-0.258225D-03	0.779539D-03	-0.934438D-03	0.928850D-04	-0.162881D-03
57	-0.512970D-04	0.100766D-04	-0.778999D-03	-0.315991D-03	-0.513853D-03
58	0.710424D-02	0.699362D-02	-0.118465D-01	-0.353462D-02	0.705412D-02
59	0.451575D-04	0.503855D-05	-0.125374D-04	0.132304D-04	0.503988D-04
60	-0.577936D-04	0.380061D-04	0.540279D-04	-0.205963D-04	-0.239111D-03
61	-0.893715D-05	0.210735D-04	0.397826D-04	0.407788D-04	-0.433950D-04
62	-0.415586D-04	0.300491D-04	-0.887591D-04	-0.817044D-04	0.946849D-04
63	-0.539853D-04	-0.874614D-04	0.159399D-04	0.824724D-04	-0.117170D-03
64	0.126804D-05	-0.215777D-04	-0.848706D-04	-0.544907D-04	-0.924743D-04
65	-0.432019D-04	-0.124512D-03	-0.202695D-03	-0.906679D-04	-0.296478D-04
66	-0.909501D-04	-0.127735D-03	-0.678398D-04	-0.537596D-04	-0.230619D-03
67	0.762946D-04	-0.750449D-04	-0.453647D-04	0.838702D-04	-0.688519D-04
68	-0.271568D-04	-0.827520D-04	0.145112D-03	-0.805643D-04	-0.159483D-04
69	0.386595D-04	0.463430D-05	0.161622D-03	0.449399D-05	-0.993421D-04
70	0.368188D-04	-0.442729D-04	0.208677D-04	-0.533319D-04	0.255959D-04
71	0.131766D+00	0.375787D+00	0.510354D-01	0.346870D-01	-0.248437D+00
72	-0.340797D-03	0.889154D-04	0.953094D-06	-0.423219D-03	0.108528D-03
73	0.626307D-04	-0.981109D-04	-0.923174D-04	0.538939D-04	-0.229105D-03
74	0.271098D-03	-0.624087D-03	0.780083D-03	0.165314D-04	0.302500D-03
75	0.278648D-03	-0.757241D-03	0.125532D-03	-0.715557D-04	-0.351803D-03
76	0.137289D-04	-0.278554D-05	0.116419D-04	-0.166955D-05	0.335953D-04
77	-0.283799D-04	0.124857D-04	-0.106873D-04	-0.328254D-05	0.357656D-05
78	0.239973D-04	0.153484D-04	-0.101039D-03	0.660359D-04	-0.658805D-04
79	0.132479D-04	-0.557631D-05	-0.655009D-05	0.237052D-04	0.109103D-04
80	-0.155644D-04	-0.101224D-03	-0.483828D-04	-0.230397D-04	-0.221478D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.701501D-03				
27	0.406898D-03	0.254351D-02			
28	-0.247711D-04	-0.556012D-05	0.650511D-03		
29	-0.375672D-04	-0.103402D-04	0.101227D-03	0.309465D-03	
30	0.660579D-04	0.231289D-04	-0.736134D-04	-0.932882D-04	0.117726D-02
31	-0.185027D-03	-0.779450D-04	0.303423D-04	0.825486D-04	-0.164219D-03
32	-0.235315D-03	-0.541477D-03	0.121644D-03	0.569914D-04	-0.248751D-03
33	0.436405D-04	0.118662D-04	-0.819731D-04	-0.137255D-03	0.341926D-03
34	0.526012D-04	0.683927D-04	-0.512500D-04	-0.353985D-04	-0.289904D-04

35	0.681901D-04	0.148935D-03	0.893124D-04	0.534835D-04	-0.903457D-04
36	0.135217D-03	0.306490D-03	0.970203D-04	0.583855D-04	-0.136635D-04
37	0.947225D-04	-0.553397D-04	0.869173D-04	0.120750D-03	0.104484D-03
38	0.881856D-04	0.635341D-04	0.138499D-03	0.129601D-03	-0.142259D-03
39	0.138811D-03	0.417572D-03	0.160944D-03	0.137255D-03	-0.145514D-03
40	0.145685D-03	0.463204D-03	0.928396D-04	0.150180D-04	0.847893D-04
41	0.116491D-03	0.790494D-04	0.195084D-03	0.575954D-04	-0.125254D-03
42	-0.233337D-04	0.221803D-03	0.148613D-03	0.100057D-03	-0.387570D-04
43	0.118421D-03	0.251594D-03	0.127320D-03	0.937488D-04	0.521605D-04
44	0.866208D-04	0.357248D-03	0.644327D-04	0.598433D-04	-0.146931D-03
45	-0.160225D-05	0.168341D-03	0.618455D-04	0.694237D-04	0.671993D-05
46	0.109412D-01	0.522188D-02	0.263959D-02	0.309363D-02	-0.325184D-02
47	0.757750D-03	-0.308252D-03	0.333619D-03	-0.989951D-04	-0.166880D-03
48	0.826737D-04	0.237359D-03	0.361446D-03	0.164417D-03	-0.244723D-03
49	0.749463D-03	0.397091D-03	-0.267319D-03	-0.163670D-04	-0.148133D-02
50	0.984560D-03	0.360437D-03	0.111962D-03	0.222630D-03	0.178689D-03
51	0.823322D-03	0.329826D-03	0.172395D-03	0.140670D-03	0.400277D-03
52	0.412220D-03	-0.269295D-03	0.522209D-03	-0.552457D-04	-0.365573D-03
53	0.919840D-04	0.148906D-02	-0.254437D-03	-0.184097D-03	-0.400425D-03
54	0.421370D-03	-0.399761D-03	-0.434847D-05	-0.518702D-03	0.821760D-04
55	0.877751D-03	-0.388860D-03	-0.248896D-03	-0.208772D-03	0.447646D-03
56	0.745507D-03	0.201248D-03	0.205128D-04	-0.598628D-03	-0.734271D-03
57	0.461294D-03	-0.391323D-03	-0.181913D-05	0.131461D-03	0.158720D-03
58	0.134334D-01	-0.333590D-02	-0.142793D-01	0.342130D-02	0.157655D-01
59	0.127901D-04	-0.811932D-04	-0.265675D-04	-0.501450D-04	0.380066D-04
60	0.376359D-04	0.275689D-03	0.879224D-04	0.544936D-04	-0.645973D-04
61	-0.398200D-04	-0.291085D-04	-0.490555D-04	0.316422D-04	0.585001D-04
62	0.141025D-03	-0.276856D-03	0.816693D-04	0.104408D-03	0.180272D-03
63	-0.654202D-04	-0.220315D-03	-0.124106D-04	-0.204634D-04	0.203748D-03
64	0.407153D-04	-0.525118D-04	0.151794D-04	0.518559D-04	-0.557082D-04
65	-0.588980D-04	-0.396704D-04	-0.744172D-05	-0.344829D-04	0.642893D-04
66	0.104466D-03	0.394231D-03	0.735517D-04	0.126532D-03	0.997731D-04
67	-0.381273D-04	0.790447D-04	-0.104607D-03	-0.115293D-03	0.323680D-04
68	-0.650745D-07	0.102265D-03	-0.204566D-04	-0.108632D-04	0.725035D-04
69	0.186729D-04	0.193890D-03	0.104449D-04	0.115906D-04	0.118326D-04
70	0.647129D-04	-0.116138D-03	0.184121D-04	-0.231117D-04	-0.189883D-03
71	-0.170072D-01	0.142196D+00	0.178261D+00	0.100883D+00	0.916276D-01
72	-0.532596D-06	-0.452013D-03	0.176109D-03	0.361882D-03	0.188733D-03
73	0.269294D-04	0.210928D-03	0.289476D-03	0.628256D-04	-0.374034D-04
74	-0.930106D-03	-0.269633D-02	0.109459D-03	0.224700D-03	-0.553037D-03
75	-0.521619D-03	-0.659420D-03	-0.106045D-02	0.186122D-03	0.392258D-03
76	-0.209325D-04	0.107100D-04	0.170213D-04	0.529487D-06	0.655006D-05
77	0.663840D-05	0.175406D-04	0.823849D-05	-0.780752D-07	0.296192D-05
78	-0.766313D-04	-0.518067D-04	0.566394D-04	-0.294277D-04	-0.407475D-04

79	0.134780D-04	0.309687D-04	0.350813D-05	-0.237852D-06	-0.594408D-05
80	-0.277130D-04	-0.141657D-03	-0.273839D-04	0.467042D-04	-0.699835D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.616725D-03				
32	0.243885D-03	0.116178D-02			
33	-0.331269D-03	-0.475783D-03	0.181229D-02		
34	0.551567D-04	-0.883638D-04	0.941168D-04	0.499751D-02	
35	0.660560D-04	-0.243865D-03	-0.162717D-05	0.368538D-02	0.201313D-01
36	0.214343D-04	-0.259168D-03	-0.609827D-04	0.405953D-02	0.140480D-01
37	-0.916353D-04	-0.268089D-04	0.100986D-03	0.324440D-02	0.997777D-02
38	0.371605D-04	-0.257694D-03	-0.755882D-04	0.369174D-02	0.121579D-01
39	0.838837D-04	-0.395499D-03	0.637407D-05	0.400721D-02	0.134073D-01
40	0.628555D-05	-0.288648D-03	0.765106D-04	0.432233D-02	0.144236D-01
41	-0.986166D-04	-0.166261D-03	0.363687D-05	0.301524D-02	0.104553D-01
42	-0.369913D-04	-0.184509D-03	0.181018D-03	0.232297D-02	0.848541D-02
43	0.634288D-04	-0.423704D-03	0.149523D-03	0.449714D-02	0.152593D-01
44	-0.316997D-04	-0.129018D-03	-0.144414D-04	0.366155D-02	0.126371D-01
45	0.601730D-04	-0.421557D-03	0.104922D-03	0.354411D-02	0.118963D-01
46	-0.241942D-02	-0.966261D-02	0.218189D-02	0.803779D-01	0.287594D+00
47	-0.128525D-02	-0.493648D-03	0.163842D-02	-0.531247D-02	-0.137679D-01
48	-0.131876D-02	-0.682268D-03	0.343258D-03	-0.558693D-02	-0.147772D-01
49	-0.167639D-02	0.105168D-03	-0.814585D-04	-0.254394D-02	-0.715401D-02
50	-0.145063D-02	-0.136533D-02	0.104430D-02	-0.565607D-02	-0.109392D-01
51	-0.156178D-02	-0.762014D-03	0.538483D-04	-0.384801D-02	-0.993615D-02
52	-0.116127D-02	0.712946D-03	-0.474961D-04	-0.599508D-02	-0.131471D-01
53	-0.751954D-03	-0.428555D-03	-0.895297D-03	-0.370725D-02	-0.124254D-01
54	-0.485560D-04	-0.499143D-03	0.352728D-03	-0.199177D-02	-0.495803D-02
55	-0.215264D-02	-0.150260D-02	0.199896D-02	-0.538081D-02	-0.110941D-01
56	-0.176044D-02	-0.130942D-02	0.117362D-02	-0.496046D-02	-0.101305D-01
57	-0.115462D-02	-0.789831D-03	0.295522D-03	-0.368163D-02	-0.963350D-02
58	-0.200172D-01	0.172189D-01	-0.259187D-01	-0.109976D+00	-0.377579D+00
59	0.232545D-04	0.514545D-04	0.829467D-04	-0.820241D-04	0.219683D-03
60	-0.307033D-04	-0.420911D-04	0.556544D-04	-0.525190D-04	0.316681D-03
61	-0.114808D-04	-0.432644D-04	0.649756D-04	-0.116839D-05	-0.904396D-04
62	-0.113550D-03	-0.147429D-05	0.375840D-03	-0.462177D-03	-0.566803D-03
63	-0.287921D-04	0.148492D-03	-0.115468D-04	0.798885D-06	-0.259221D-03
64	-0.459154D-04	-0.636445D-04	-0.633852D-04	-0.555996D-04	-0.418846D-03
65	0.191542D-03	-0.767861D-04	-0.159651D-03	0.249499D-04	0.174176D-03
66	0.141336D-04	-0.643596D-04	0.235011D-03	0.199753D-03	0.951288D-03
67	-0.528353D-04	-0.122736D-03	0.832325D-04	0.534968D-03	0.126376D-02

68	-0.536838D-04	-0.102104D-05	0.109177D-03	-0.302890D-04	0.107081D-02
69	0.349969D-04	0.474048D-04	-0.354156D-04	0.403790D-03	0.367923D-03
70	0.968613D-04	0.444804D-04	-0.132370D-03	0.198026D-03	0.100660D-02
71	-0.334221D+00	0.244804D+00	-0.246275D+00	0.869554D-02	0.798826D+00
72	0.222253D-03	0.574907D-03	-0.401606D-03	-0.521362D-02	-0.138626D-01
73	-0.123015D-03	0.450658D-04	-0.116844D-03	-0.413132D-03	0.548799D-03
74	0.110501D-02	0.389978D-03	0.799206D-03	0.300735D-02	0.193614D-02
75	-0.125152D-03	-0.468369D-04	-0.241240D-03	-0.112117D-02	-0.276323D-02
76	0.267247D-04	0.188638D-04	-0.127000D-04	0.931900D-04	0.272881D-03
77	0.683729D-05	-0.178567D-04	-0.139285D-04	0.329943D-04	-0.292440D-04
78	0.585553D-04	-0.749929D-05	0.109379D-04	-0.365803D-04	-0.477834D-03
79	-0.162169D-04	0.347607D-04	0.396549D-04	-0.807579D-05	-0.107342D-03
80	0.121094D-04	-0.716504D-04	0.573424D-04	0.367600D-03	0.139135D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.225524D-01				
37	0.116726D-01	0.246666D-01			
38	0.148785D-01	0.108274D-01	0.215696D-01		
39	0.158833D-01	0.102769D-01	0.140697D-01	0.226043D-01	
40	0.169268D-01	0.122112D-01	0.153153D-01	0.168641D-01	0.321812D-01
41	0.124872D-01	0.923819D-02	0.108148D-01	0.116239D-01	0.131573D-01
42	0.100402D-01	0.650157D-02	0.850246D-02	0.942147D-02	0.103881D-01
43	0.179015D-01	0.122573D-01	0.161116D-01	0.170399D-01	0.188419D-01
44	0.153939D-01	0.109628D-01	0.134232D-01	0.145297D-01	0.157091D-01
45	0.143834D-01	0.952643D-02	0.128646D-01	0.133143D-01	0.148369D-01
46	0.325128D+00	0.223990D+00	0.291860D+00	0.315099D+00	0.347870D+00
47	-0.157160D-01	-0.100850D-01	-0.164607D-01	-0.143657D-01	-0.131896D-01
48	-0.196497D-01	-0.139782D-01	-0.171575D-01	-0.187629D-01	-0.192811D-01
49	-0.852775D-02	-0.118606D-01	-0.106438D-01	-0.822584D-02	-0.772476D-02
50	-0.137004D-01	-0.929639D-02	-0.152281D-01	-0.125095D-01	-0.130295D-01
51	-0.139871D-01	-0.986379D-02	-0.134789D-01	-0.128411D-01	-0.109616D-01
52	-0.166626D-01	-0.125516D-01	-0.179485D-01	-0.160816D-01	-0.193682D-01
53	-0.139435D-01	-0.102551D-01	-0.121152D-01	-0.121158D-01	-0.109407D-01
54	-0.738934D-02	-0.382969D-02	-0.515511D-02	-0.783539D-02	-0.458063D-02
55	-0.135362D-01	-0.112958D-01	-0.142511D-01	-0.117460D-01	-0.172380D-01
56	-0.126784D-01	-0.834626D-02	-0.116107D-01	-0.145156D-01	-0.128930D-01
57	-0.144790D-01	-0.128046D-01	-0.125569D-01	-0.131771D-01	-0.115689D-01
58	-0.381550D+00	-0.306661D+00	-0.523661D+00	-0.547644D+00	-0.491771D+00
59	-0.434577D-04	0.333036D-03	0.488083D-03	0.432743D-03	0.204698D-03
60	0.360317D-03	0.435764D-03	-0.259117D-04	0.618297D-03	0.495467D-03
61	-0.195222D-03	-0.445333D-03	-0.430045D-03	-0.153360D-03	0.555306D-05

62	-0.608003D-04	-0.654287D-03	-0.310403D-03	-0.347244D-03	-0.105977D-02
63	-0.256883D-03	0.436064D-03	-0.465110D-03	-0.338223D-04	-0.180333D-03
64	0.114980D-03	-0.586968D-04	0.112014D-03	0.510729D-04	-0.203230D-03
65	-0.807119D-04	-0.191824D-03	-0.907772D-03	-0.117599D-02	-0.515183D-03
66	-0.154143D-03	-0.114756D-03	-0.565192D-04	0.135638D-03	0.174409D-02
67	0.128047D-02	0.830547D-03	0.122038D-02	0.105203D-02	0.139401D-02
68	0.112651D-02	0.682866D-03	0.112895D-02	0.806067D-03	0.112119D-02
69	0.103973D-02	0.985114D-04	0.665724D-03	0.928530D-03	0.792123D-03
70	0.700905D-03	0.602247D-03	0.592007D-03	0.784975D-03	0.996686D-03
71	0.392543D+00	0.894107D+00	0.879969D+00	0.108404D+01	0.215954D+01
72	-0.163669D-01	-0.105724D-01	-0.156055D-01	-0.166488D-01	-0.171729D-01
73	-0.315998D-03	0.178154D-06	-0.685727D-03	-0.556372D-04	0.875434D-03
74	0.880839D-02	0.755008D-02	0.700629D-02	0.733421D-02	0.863757D-02
75	-0.458697D-02	-0.471421D-02	-0.256020D-02	-0.417428D-02	-0.567529D-02
76	0.248773D-03	0.227740D-03	0.254403D-03	0.251586D-03	0.211691D-03
77	-0.792154D-04	-0.770263D-04	-0.990287D-04	-0.191135D-03	-0.130384D-04
78	-0.464359D-03	-0.246910D-03	-0.306365D-03	-0.456808D-03	-0.183965D-03
79	-0.658396D-04	0.296547D-06	-0.125550D-03	-0.214717D-03	-0.101552D-03
80	0.183032D-02	0.115685D-02	0.174055D-02	0.164483D-02	0.162687D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.234226D-01				
42	0.722617D-02	0.188707D-01			
43	0.135135D-01	0.107805D-01	0.268277D-01		
44	0.112964D-01	0.909344D-02	0.162287D-01	0.222996D-01	
45	0.107198D-01	0.839928D-02	0.157191D-01	0.127256D-01	0.199549D-01
46	0.254071D+00	0.177986D+00	0.356033D+00	0.297624D+00	0.291465D+00
47	-0.891312D-02	-0.986125D-02	-0.188681D-01	-0.168139D-01	-0.110349D-01
48	-0.104813D-01	-0.126896D-01	-0.224735D-01	-0.186577D-01	-0.142888D-01
49	-0.320771D-02	-0.600465D-02	-0.121306D-01	-0.120219D-01	-0.879104D-02
50	-0.104838D-01	-0.962751D-02	-0.169504D-01	-0.163201D-01	-0.119404D-01
51	-0.843869D-02	-0.990029D-02	-0.147785D-01	-0.160578D-01	-0.117092D-01
52	-0.105431D-01	-0.111877D-01	-0.211899D-01	-0.176751D-01	-0.122569D-01
53	-0.101427D-01	-0.132018D-01	-0.160106D-01	-0.147036D-01	-0.825032D-02
54	-0.544163D-02	-0.775851D-02	-0.749730D-02	-0.633118D-02	-0.769320D-02
55	-0.770063D-02	-0.859402D-02	-0.191595D-01	-0.143323D-01	-0.106087D-01
56	-0.470244D-02	-0.111583D-01	-0.168419D-01	-0.162968D-01	-0.966791D-02
57	-0.671112D-02	-0.868188D-02	-0.154970D-01	-0.155474D-01	-0.126268D-01
58	-0.311863D+00	-0.269066D+00	-0.431644D+00	-0.436651D+00	-0.187589D+00
59	0.194856D-03	0.340419D-04	0.198162D-03	0.149047D-03	0.108277D-03
60	0.540641D-03	0.562613D-03	0.950908D-03	0.251508D-03	0.136456D-03

61	0.184122D-03	0.314942D-05	-0.273756D-04	-0.358275D-03	-0.205457D-03
62	-0.291519D-04	-0.567091D-03	-0.862569D-03	0.314315D-03	0.327799D-03
63	0.962384D-04	-0.253895D-03	-0.812320D-03	-0.268178D-03	-0.576308D-03
64	-0.134796D-03	-0.423711D-03	-0.827153D-03	0.213950D-03	0.366817D-03
65	-0.738664D-03	0.252823D-03	-0.379034D-03	-0.117617D-02	-0.414542D-03
66	0.422171D-03	0.148328D-03	0.284298D-03	-0.476037D-06	-0.134489D-03
67	0.147609D-02	0.859437D-03	0.122544D-02	0.850385D-03	0.535448D-03
68	0.865969D-03	0.865863D-03	0.128764D-02	0.107813D-02	0.532447D-03
69	0.518424D-03	0.655227D-03	0.976874D-03	0.303983D-03	0.731607D-03
70	0.205751D-03	0.465031D-04	0.426977D-03	0.103848D-02	0.525821D-03
71	0.171177D+01	0.962819D+00	0.121251D+01	0.207563D+00	0.583186D-01
72	-0.116856D-01	-0.845886D-02	-0.181434D-01	-0.164767D-01	-0.151001D-01
73	0.992905D-03	-0.564934D-03	0.124926D-02	-0.315432D-03	-0.616059D-03
74	0.495034D-02	0.205530D-02	0.575365D-02	0.554236D-02	0.504105D-02
75	-0.499295D-02	-0.378139D-02	-0.594202D-02	-0.210394D-02	-0.254636D-02
76	0.177829D-03	0.203880D-03	0.301375D-03	0.310383D-03	0.243234D-03
77	-0.144356D-03	-0.148284D-03	-0.185655D-04	-0.201959D-03	-0.122427D-03
78	-0.327769D-03	-0.286922D-03	-0.680935D-03	-0.410061D-03	-0.386610D-04
79	0.625271D-04	0.511178D-05	-0.317738D-04	-0.149153D-03	-0.108246D-03
80	0.120628D-02	0.819032D-03	0.237858D-02	0.170815D-02	0.161241D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.339397D+02				
47	-0.219666D+00	0.541756D+00			
48	-0.216523D+00	0.398052D+00	0.605634D+00		
49	-0.107291D-01	0.262599D+00	0.322866D+00	0.618271D+00	
50	-0.213205D+00	0.329812D+00	0.402361D+00	0.274877D+00	0.554875D+00
51	-0.211425D+00	0.367956D+00	0.421902D+00	0.285757D+00	0.377900D+00
52	-0.121451D+00	0.420879D+00	0.484700D+00	0.324925D+00	0.420977D+00
53	-0.255936D+00	0.284236D+00	0.353995D+00	0.258020D+00	0.298155D+00
54	-0.114931D+00	0.214740D+00	0.253451D+00	0.197453D+00	0.229797D+00
55	-0.161466D+00	0.371425D+00	0.448098D+00	0.299215D+00	0.383589D+00
56	-0.159201D+00	0.392390D+00	0.441952D+00	0.286241D+00	0.388166D+00
57	-0.221342D-01	0.328169D+00	0.374102D+00	0.262169D+00	0.327799D+00
58	-0.568624D+01	0.665904D+01	0.792670D+01	0.548089D+01	0.724566D+01
59	-0.213678D-02	-0.267915D-02	-0.243214D-02	-0.401648D-02	-0.251977D-02
60	0.160827D-01	-0.673509D-02	-0.847282D-03	0.155529D-02	-0.437879D-03
61	-0.601135D-02	-0.424430D-03	-0.746859D-02	-0.129806D-02	-0.224064D-02
62	-0.956249D-02	0.415323D-02	0.661825D-02	-0.801965D-02	0.484337D-02
63	-0.244636D-01	0.301668D-03	0.716816D-03	0.368160D-03	-0.488211D-02
64	0.165827D-01	0.277228D-02	0.410798D-02	0.167541D-02	0.219746D-02



65	-0.118756D-01	0.664553D-02	0.264331D-02	0.898802D-02	0.325352D-02
66	0.445944D-02	0.823776D-02	0.428424D-02	0.453628D-02	0.128164D-02
67	0.255562D-01	-0.196874D-02	-0.414957D-03	0.266372D-02	0.515662D-03
68	-0.361829D-02	-0.400483D-02	-0.104667D-02	-0.618503D-03	-0.155784D-02
69	0.526481D-01	-0.529982D-03	-0.234510D-02	-0.277358D-03	0.201875D-02
70	-0.328047D-02	-0.337246D-02	-0.206229D-02	-0.255098D-02	-0.355358D-02
71	-0.267511D+02	0.137391D+01	0.604121D+00	-0.448595D+00	-0.314944D+01
72	-0.294022D+00	-0.464854D-01	-0.451856D-01	-0.291056D-01	-0.449785D-01
73	0.629330D-01	0.272975D-02	0.452593D-02	0.100940D-01	0.632325D-02
74	0.567979D-01	-0.190824D+00	-0.215418D+00	-0.170848D+00	-0.183242D+00
75	-0.275040D+00	-0.238939D-01	-0.204701D-01	-0.143754D-01	-0.123017D-01
76	0.262193D-02	-0.797002D-02	-0.974870D-02	-0.649107D-02	-0.842659D-02
77	-0.433568D-02	0.109775D-02	0.524590D-03	0.943538D-03	0.905025D-03
78	0.522942D-02	0.398965D-02	0.406491D-02	0.794762D-03	0.319298D-02
79	-0.342629D-02	0.120815D-03	-0.251676D-03	-0.618313D-03	0.923596D-05
80	0.241806D-01	0.109723D-03	0.216529D-02	-0.938722D-03	0.254261D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.613170D+00				
52	0.443770D+00	0.900161D+00			
53	0.334713D+00	0.369418D+00	0.633643D+00		
54	0.230878D+00	0.262348D+00	0.208865D+00	0.493902D+00	
55	0.426064D+00	0.481332D+00	0.337283D+00	0.259430D+00	0.852123D+00
56	0.417939D+00	0.465710D+00	0.318848D+00	0.231000D+00	0.428210D+00
57	0.368248D+00	0.396452D+00	0.281969D+00	0.194383D+00	0.384553D+00
58	0.701754D+01	0.956191D+01	0.683025D+01	0.500905D+01	0.747284D+01
59	-0.348846D-02	-0.337510D-02	-0.239449D-02	-0.945199D-03	-0.239698D-02
60	-0.114862D-02	0.138313D-02	0.171819D-02	0.388093D-03	0.576863D-03
61	-0.467312D-04	-0.348920D-02	-0.232859D-02	-0.257631D-02	-0.236832D-02
62	0.553047D-02	0.487171D-02	-0.166093D-02	0.294609D-02	0.302032D-03
63	0.124447D-02	0.128348D-03	-0.259715D-04	-0.137116D-02	0.806194D-03
64	-0.672784D-02	0.400541D-02	0.304136D-02	0.559649D-02	0.321074D-02
65	0.549828D-02	-0.732692D-02	-0.194457D-02	0.309517D-02	-0.168494D-02
66	0.687339D-02	-0.643972D-03	0.103960D-03	-0.187312D-02	0.267667D-02
67	-0.734592D-03	-0.258168D-02	-0.273517D-02	-0.179176D-02	-0.274492D-02
68	-0.206220D-02	0.903805D-03	-0.402663D-02	-0.141750D-02	-0.126703D-01
69	0.366538D-02	0.140795D-02	0.143020D-02	-0.184363D-03	-0.324793D-03
70	-0.528276D-02	-0.321781D-02	-0.421336D-02	0.215012D-02	-0.641358D-02
71	0.255842D+01	0.445638D+01	0.247983D+01	-0.781154D+01	0.230566D+01
72	-0.469507D-01	-0.500790D-01	-0.359571D-01	-0.300314D-01	-0.109026D+00
73	0.334482D-02	0.934960D-03	-0.335814D-02	0.243330D-02	0.213706D-01

74	-0.191155D+00	-0.199344D+00	-0.177324D+00	-0.125485D+00	-0.339895D+00
75	-0.190259D-01	-0.282235D-01	0.318670D-02	-0.167547D-02	0.869529D-01
76	-0.905713D-02	-0.991499D-02	-0.747303D-02	-0.525613D-02	-0.951507D-02
77	0.571964D-03	0.415908D-04	0.611262D-03	-0.311149D-04	-0.125359D-01
78	0.448048D-02	0.178420D-02	0.515852D-02	0.589312D-03	0.634835D-02
79	-0.382740D-03	0.136535D-03	-0.111139D-02	0.276880D-03	-0.159695D-02
80	0.128315D-02	0.121366D-02	0.340781D-02	0.255293D-02	0.142913D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	0.616302D+00				
57	0.362204D+00	0.543355D+00			
58	0.760040D+01	0.713259D+01	0.827070D+03		
59	-0.226353D-02	-0.251641D-02	-0.212813D-01	0.286939D-02	
60	-0.353265D-02	0.200832D-03	-0.182078D-01	0.239130D-04	0.955182D-02
61	-0.342497D-02	0.155356D-02	-0.115390D+00	-0.533241D-04	0.338219D-03
62	0.714069D-02	0.128042D-02	0.904567D-01	0.325724D-03	-0.133274D-05
63	0.641493D-03	-0.103466D-02	0.106165D-01	-0.328234D-04	-0.231293D-03
64	0.370556D-02	-0.193010D-02	0.196181D+00	0.212636D-03	-0.852075D-04
65	0.598488D-02	0.506776D-02	0.212092D-01	0.219084D-03	-0.683292D-03
66	0.701860D-02	0.654464D-02	-0.500314D-01	0.813322D-04	-0.490831D-03
67	0.553935D-02	-0.256476D-02	-0.427456D-01	0.246333D-03	-0.101378D-03
68	-0.511595D-02	-0.651270D-02	-0.115823D+00	0.233742D-03	0.512435D-04
69	-0.567251D-02	0.221767D-02	0.140019D+00	-0.719267D-04	0.646502D-03
70	-0.253223D-02	-0.118021D-01	-0.824439D-01	-0.276364D-03	-0.535278D-03
71	0.184601D+01	-0.319368D+01	0.394607D+02	0.914029D+00	0.493587D+00
72	-0.631160D-01	-0.390869D-01	-0.375124D+00	0.183506D-03	0.276365D-03
73	0.435998D-02	0.949291D-03	0.236250D-01	-0.520823D-03	-0.696920D-03
74	-0.224519D+00	-0.192541D+00	-0.510926D+01	0.534859D-02	0.669681D-02
75	-0.527353D-02	-0.211502D-01	-0.270879D+00	0.120793D-02	-0.741262D-03
76	-0.913701D-02	-0.823666D-02	-0.175133D+00	0.926362D-04	-0.382988D-04
77	0.796183D-03	0.803195D-03	0.437973D-02	-0.193391D-04	-0.979376D-04
78	0.323028D-02	0.329246D-02	0.180746D+00	0.305057D-04	-0.154312D-03
79	-0.450928D-04	-0.357777D-03	-0.283372D-01	-0.138842D-04	-0.984237D-04
80	0.220820D-02	0.201490D-03	-0.917675D-01	0.268727D-03	0.276928D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES				
	61	62	63	64
61	0.532707D-02			
62	-0.423300D-03	0.328111D-01		

63	-0.117977D-03	0.350328D-03	0.111427D-01		
64	-0.875661D-03	0.800160D-03	0.316143D-03	0.966032D-02	
65	0.386901D-03	0.411073D-03	0.551757D-03	-0.131539D-02	0.331891D-01
66	0.828978D-03	0.257446D-03	-0.252417D-03	0.259643D-04	0.272389D-02
67	-0.954369D-04	-0.128260D-03	-0.264218D-03	-0.509943D-03	0.575864D-03
68	-0.493821D-03	-0.219484D-03	0.235112D-03	-0.493209D-03	-0.555944D-03
69	0.570353D-03	0.397587D-03	-0.357490D-03	-0.546491D-03	-0.197188D-03
70	-0.496753D-03	-0.146797D-03	0.625102D-03	0.614155D-03	-0.233669D-03
71	0.385066D+00	0.879787D+00	-0.181342D+00	-0.289079D+00	-0.808173D+00
72	0.128379D-02	0.144189D-02	0.171267D-02	-0.158100D-02	0.149143D-02
73	0.916324D-04	-0.359592D-03	-0.529297D-04	0.812091D-03	0.964082D-03
74	-0.382290D-02	-0.327375D-02	0.369307D-02	-0.484571D-03	-0.661544D-02
75	-0.243269D-02	-0.523755D-02	-0.528076D-02	-0.136321D-02	-0.506121D-02
76	0.271043D-04	-0.142725D-03	0.424128D-04	-0.821750D-04	-0.190102D-03
77	0.577384D-04	0.206139D-03	-0.139716D-03	-0.587608D-04	0.101568D-03
78	-0.228503D-03	-0.177487D-03	-0.320699D-03	0.663075D-04	-0.682212D-04
79	-0.470323D-04	0.113978D-03	-0.465346D-05	-0.203427D-04	0.118292D-03
80	-0.690125D-03	-0.126968D-03	-0.257993D-03	0.139024D-03	-0.641488D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.265595D-01				
67	0.846258D-04	0.241606D-01			
68	-0.129700D-03	0.360481D-03	0.115290D-01		
69	-0.252607D-03	-0.214720D-03	-0.345473D-04	0.945425D-02	
70	-0.369973D-03	-0.253365D-03	0.915912D-03	-0.308931D-03	0.108636D-01
71	-0.338743D+01	-0.337775D+00	0.874905D+00	0.459892D+00	-0.150869D+01
72	-0.438898D-03	-0.255574D-02	0.446252D-03	0.735109D-04	-0.238180D-02
73	0.170609D-03	-0.260409D-03	-0.371758D-02	-0.429235D-04	0.119356D-02
74	-0.274288D-02	0.911177D-02	0.798991D-02	-0.999090D-03	0.342795D-02
75	-0.293684D-02	-0.355881D-02	-0.442870D-02	-0.130596D-02	-0.341688D-03
76	-0.732130D-04	-0.533920D-04	0.117822D-03	-0.478963D-04	0.145502D-03
77	0.104951D-03	0.128352D-03	0.245728D-03	-0.310824D-04	-0.150624D-04
78	-0.470622D-03	0.136402D-03	-0.559599D-02	0.361490D-03	0.558756D-04
79	0.362637D-04	-0.114923D-03	0.203713D-03	-0.135857D-04	0.402126D-04
80	-0.100339D-03	-0.263494D-03	-0.688167D-03	-0.767018D-04	0.313274D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.884957D+05				

72	-0.169084D+01	0.150718D+00				
73	0.260093D+00	-0.253119D-02	0.512923D-01			
74	0.518862D+01	0.194581D-02	-0.165923D-01	0.163461D+01		
75	-0.107134D+01	-0.387149D-01	0.965417D-02	-0.961841D-01	0.391247D+00	
76	0.494249D-01	0.108017D-02	0.138606D-04	0.486372D-02	0.212591D-03	
77	0.412410D+00	0.235922D-02	-0.964065D-03	0.445514D-02	-0.510397D-02	
78	-0.300787D+00	0.181876D-03	0.353000D-02	0.288198D-02	0.950904D-03	
79	0.832882D-01	-0.512215D-03	-0.302371D-03	0.104665D-02	0.447537D-03	
80	-0.339833D+00	-0.678917D-02	0.337997D-02	0.313974D-01	0.311846D-01	

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	0.396141D-03				
77	-0.231192D-04	0.883421D-03			
78	-0.339785D-04	-0.187515D-03	0.872860D-02		
79	0.115080D-04	0.560472D-04	-0.448389D-04	0.597734D-03	
80	-0.509304D-04	-0.645775D-03	0.794931D-03	-0.356225D-04	0.823163D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.246	1.000			
3	-0.092	-0.196	1.000		
4	0.071	0.150	-0.118	1.000	
5	0.078	0.126	-0.148	0.238	1.000
6	-0.084	-0.128	0.123	-0.196	-0.250
7	-0.008	-0.011	-0.017	0.008	0.043
8	-0.022	0.004	-0.043	0.013	-0.044
9	0.011	0.009	0.000	-0.018	0.024
10	0.013	0.063	-0.013	-0.003	0.028
11	-0.028	-0.039	0.069	0.002	-0.035
12	-0.007	0.013	0.083	0.007	-0.040
13	0.033	-0.038	-0.045	0.043	0.005
14	0.028	0.025	-0.005	0.025	-0.054
15	0.048	0.038	-0.017	0.024	-0.027
16	-0.022	0.007	0.013	0.001	-0.017
17	0.021	-0.001	-0.004	0.002	-0.018
18	0.041	-0.002	-0.014	0.024	0.031
19	-0.006	0.022	-0.013	0.033	-0.005
20	-0.010	0.017	-0.009	0.048	0.006

21	0.001	-0.005	0.011	-0.011	0.001
22	0.027	0.052	-0.034	0.048	-0.008
23	0.010	0.006	-0.003	0.029	0.019
24	0.007	0.006	0.009	-0.002	-0.002
25	-0.040	0.029	-0.025	-0.021	-0.013
26	0.024	0.020	-0.024	-0.003	-0.014
27	0.007	-0.008	-0.023	-0.012	0.015
28	0.012	-0.018	0.002	-0.037	-0.024
29	-0.012	-0.046	0.007	-0.008	-0.011
30	0.027	0.015	-0.019	0.015	0.003
31	-0.016	-0.030	0.057	-0.018	-0.041
32	-0.009	0.018	0.013	0.002	-0.073
33	-0.037	-0.007	-0.009	0.007	0.016
34	-0.013	-0.019	-0.006	0.024	-0.003
35	-0.012	0.012	0.017	-0.016	0.014
36	0.001	0.001	0.033	-0.007	0.014
37	0.029	-0.006	0.029	-0.017	-0.026
38	0.017	0.037	-0.002	0.010	0.016
39	0.021	0.017	0.006	-0.007	0.024
40	0.008	0.010	0.011	0.015	0.041
41	0.019	0.020	-0.025	0.002	0.014
42	-0.002	0.016	0.030	-0.016	-0.022
43	-0.010	0.028	0.007	0.003	0.012
44	0.026	0.020	0.029	0.000	0.025
45	-0.002	0.022	0.002	0.003	-0.002
46	0.036	0.002	0.024	-0.003	0.037
47	0.010	0.056	-0.038	0.003	0.032
48	0.014	0.046	-0.056	-0.003	-0.004
49	-0.018	0.035	-0.042	0.020	0.021
50	0.035	0.051	-0.032	0.036	-0.014
51	0.025	0.053	-0.038	0.016	0.009
52	0.000	0.055	-0.034	-0.003	-0.002
53	0.016	0.053	-0.054	0.022	0.027
54	-0.002	0.032	-0.021	0.017	0.014
55	0.017	0.058	-0.035	0.004	0.003
56	0.016	0.060	-0.060	0.018	0.004
57	0.027	0.081	-0.053	0.029	0.034
58	-0.008	-0.009	-0.021	0.055	-0.029
59	0.034	0.003	-0.005	0.038	0.004
60	-0.013	0.043	-0.014	-0.020	0.018
61	0.070	-0.028	-0.038	0.017	0.036
62	0.014	0.013	0.011	-0.023	0.036
63	-0.006	0.009	0.017	-0.039	-0.003
64	-0.039	-0.004	-0.010	0.000	0.004

65	0.006	-0.025	-0.003	0.023	-0.008
66	-0.002	0.001	0.033	-0.023	-0.045
67	-0.018	-0.030	0.008	-0.008	-0.016
68	-0.044	-0.019	-0.005	-0.006	0.045
69	0.076	0.046	0.002	0.020	0.009
70	0.010	0.017	0.039	0.029	0.029
71	0.012	0.052	-0.028	0.021	0.067
72	-0.013	-0.011	0.018	0.013	-0.011
73	0.016	0.047	0.014	-0.007	0.040
74	-0.029	-0.018	0.024	0.007	0.021
75	-0.008	0.014	-0.004	-0.024	-0.034
76	-0.028	-0.037	0.038	-0.029	0.005
77	-0.014	-0.015	-0.003	-0.026	-0.001
78	0.023	0.026	0.020	-0.013	-0.019
79	0.008	-0.020	-0.013	-0.060	0.001
80	-0.029	0.031	0.006	-0.007	-0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.007	1.000			
8	-0.005	-0.101	1.000		
9	0.001	0.021	0.089	1.000	
10	-0.048	0.049	-0.052	0.100	1.000
11	0.038	-0.108	-0.016	0.100	-0.127
12	-0.007	-0.017	0.073	-0.097	0.116
13	0.000	-0.019	-0.021	-0.035	0.007
14	-0.017	-0.004	0.016	-0.058	0.032
15	-0.041	-0.012	0.008	-0.019	0.003
16	0.027	0.014	-0.049	0.015	0.011
17	-0.023	0.030	0.007	-0.018	0.006
18	0.021	-0.018	0.012	-0.045	-0.023
19	-0.021	0.010	0.037	-0.013	0.017
20	-0.022	0.003	0.031	-0.016	0.017
21	-0.012	0.017	-0.001	0.020	0.033
22	-0.018	0.013	0.058	-0.015	0.007
23	-0.020	0.027	0.017	-0.007	0.016
24	-0.062	-0.008	0.008	-0.015	-0.022
25	0.015	0.006	0.010	0.017	0.028
26	-0.030	-0.013	0.026	-0.005	-0.016
27	-0.004	-0.002	-0.011	0.028	-0.026
28	0.003	-0.012	-0.013	0.053	0.026

29	0.002	0.003	0.001	0.000	0.002
30	0.031	0.005	0.000	-0.017	-0.032
31	0.049	-0.008	-0.005	0.034	-0.019
32	0.034	-0.026	0.018	0.024	0.040
33	0.003	0.020	-0.001	-0.017	-0.035
34	0.044	0.061	-0.027	-0.018	0.015
35	0.027	-0.014	-0.013	0.016	-0.017
36	0.037	-0.002	-0.006	0.036	-0.064
37	0.027	-0.005	-0.011	0.025	-0.051
38	0.039	-0.030	-0.004	0.020	-0.012
39	0.036	-0.015	0.003	0.049	-0.019
40	0.039	0.016	0.016	0.054	-0.036
41	0.017	-0.042	-0.019	0.007	-0.035
42	0.044	0.009	0.001	0.048	0.029
43	0.053	-0.041	0.000	0.044	-0.027
44	0.016	-0.024	-0.001	0.029	-0.033
45	0.019	-0.022	0.010	0.008	-0.049
46	-0.013	0.011	-0.010	0.018	-0.020
47	-0.057	0.012	-0.016	0.002	0.053
48	-0.057	-0.020	-0.023	-0.024	0.075
49	-0.028	-0.025	0.001	0.008	0.030
50	-0.052	-0.010	0.003	-0.024	0.071
51	-0.050	-0.028	-0.002	-0.060	0.082
52	-0.029	0.006	-0.021	-0.029	0.051
53	-0.060	0.018	-0.001	-0.029	0.055
54	-0.002	0.027	0.001	-0.009	-0.012
55	-0.056	0.014	-0.011	-0.008	0.076
56	-0.062	0.018	-0.019	-0.026	0.050
57	-0.079	-0.004	-0.026	-0.037	0.072
58	0.001	0.013	0.031	0.001	0.034
59	0.008	-0.050	-0.030	-0.025	-0.025
60	0.007	-0.023	0.009	-0.039	-0.010
61	-0.055	-0.021	-0.027	-0.028	0.016
62	0.007	0.002	0.012	-0.010	0.012
63	-0.004	0.006	-0.011	0.018	0.024
64	-0.022	0.004	0.023	0.023	-0.033
65	-0.013	0.030	-0.038	0.004	0.009
66	0.027	0.014	0.026	0.000	-0.011
67	-0.002	0.016	-0.014	-0.003	0.036
68	-0.009	-0.006	0.033	0.003	0.006
69	-0.032	-0.026	-0.020	-0.011	-0.003
70	-0.001	-0.002	0.007	-0.004	-0.003
71	-0.006	-0.011	-0.038	0.013	-0.016
72	0.031	0.003	0.010	-0.065	-0.043

73	0.012	-0.022	-0.075	0.006	0.021
74	0.003	-0.002	-0.039	-0.001	-0.028
75	0.009	0.026	0.027	-0.044	-0.026
76	0.059	0.000	0.020	0.062	-0.062
77	0.001	-0.020	0.028	0.000	-0.017
78	0.011	0.042	-0.053	-0.011	0.000
79	0.037	-0.032	0.076	0.036	0.005
80	0.013	-0.011	-0.083	-0.008	-0.041

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.224	1.000			
13	0.026	0.007	1.000		
14	-0.002	0.024	0.330	1.000	
15	0.018	0.014	0.041	0.258	1.000
16	-0.022	-0.028	-0.157	-0.168	-0.032
17	-0.072	-0.022	-0.013	-0.109	-0.206
18	0.005	-0.010	0.021	0.009	0.027
19	-0.010	-0.010	0.058	0.151	0.025
20	0.012	0.041	0.017	0.052	0.215
21	-0.055	-0.025	-0.002	-0.017	-0.063
22	-0.011	0.005	-0.057	-0.006	0.025
23	0.034	-0.004	0.156	0.156	0.042
24	0.035	0.012	0.041	0.171	0.173
25	-0.026	0.046	-0.006	0.001	0.014
26	0.018	0.003	-0.001	-0.015	0.021
27	0.030	-0.046	0.025	0.030	0.045
28	0.006	-0.024	-0.072	-0.131	-0.020
29	-0.018	-0.021	0.040	-0.093	-0.188
30	-0.031	-0.017	0.006	-0.018	0.008
31	-0.001	-0.031	0.008	0.010	-0.041
32	-0.015	0.019	-0.006	-0.020	-0.018
33	0.018	0.015	0.014	-0.020	0.024
34	0.042	0.058	-0.006	-0.034	-0.031
35	0.018	0.011	-0.012	0.003	-0.004
36	0.034	-0.002	-0.035	-0.023	0.008
37	0.040	0.019	-0.004	-0.028	-0.017
38	0.048	0.022	-0.039	-0.019	-0.001
39	0.044	0.004	-0.042	-0.036	0.019
40	0.024	-0.030	-0.039	0.009	0.007
41	0.046	0.048	-0.013	-0.043	-0.017



42	0.050	0.011	-0.031	-0.012	0.020
43	0.036	0.005	-0.037	-0.033	-0.007
44	0.017	-0.004	-0.020	-0.047	0.012
45	0.021	0.029	-0.040	-0.018	-0.003
46	0.008	0.007	-0.057	-0.053	-0.029
47	0.010	-0.027	-0.005	-0.004	-0.078
48	0.004	-0.027	0.019	0.007	-0.054
49	0.011	-0.040	-0.008	-0.034	-0.034
50	-0.047	-0.051	0.014	0.015	-0.034
51	-0.001	-0.023	0.033	0.021	-0.016
52	-0.018	-0.060	-0.008	0.018	-0.013
53	-0.030	-0.044	0.008	0.019	-0.031
54	-0.014	-0.044	0.005	0.017	-0.008
55	-0.032	-0.040	-0.004	-0.010	-0.023
56	-0.009	-0.043	0.004	0.000	-0.051
57	-0.007	-0.028	-0.026	0.006	-0.016
58	-0.011	-0.025	0.026	-0.039	-0.070
59	0.061	0.022	0.009	0.056	0.027
60	-0.040	0.011	0.003	-0.032	-0.027
61	-0.040	0.028	0.000	0.005	-0.014
62	-0.008	0.017	-0.010	0.003	-0.002
63	0.036	0.026	0.010	0.026	0.008
64	-0.011	-0.035	-0.038	-0.052	-0.003
65	0.040	-0.010	0.040	-0.010	-0.017
66	0.029	-0.016	0.003	-0.024	0.001
67	-0.026	-0.009	0.010	0.004	0.036
68	0.021	0.026	0.081	0.040	0.003
69	-0.001	0.003	0.033	0.016	0.014
70	-0.001	0.012	0.027	-0.018	0.016
71	0.067	0.017	0.026	0.015	-0.028
72	-0.048	-0.019	-0.027	0.008	-0.003
73	0.016	0.018	-0.009	-0.058	-0.039
74	0.053	-0.008	-0.008	-0.002	-0.004
75	-0.025	0.001	0.028	0.016	0.045
76	0.046	0.013	0.010	-0.009	0.020
77	0.029	0.020	-0.020	0.003	-0.016
78	0.012	-0.028	-0.038	-0.010	-0.012
79	0.059	0.023	-0.006	0.019	0.010
80	0.010	0.010	0.004	-0.035	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

16

17

18

19

20

16	1.000				
17	0.221	1.000			
18	-0.166	-0.213	1.000		
19	-0.181	-0.037	-0.013	1.000	
20	-0.065	-0.185	0.041	0.222	1.000
21	0.110	0.195	-0.239	-0.107	-0.164
22	-0.008	-0.051	0.031	0.082	0.231
23	-0.184	-0.051	0.010	0.246	0.049
24	-0.071	-0.186	0.030	0.059	0.255
25	0.157	0.169	-0.244	0.007	-0.018
26	-0.027	-0.055	0.052	0.129	0.115
27	-0.008	-0.039	0.028	0.019	0.000
28	0.144	0.063	-0.007	-0.243	-0.036
29	0.063	0.155	-0.023	-0.059	-0.188
30	-0.129	-0.136	0.187	0.043	0.024
31	0.031	0.025	-0.073	-0.047	-0.134
32	0.051	0.068	-0.079	-0.044	-0.044
33	-0.028	-0.039	0.061	0.017	0.028
34	-0.014	-0.022	-0.029	0.010	-0.009
35	-0.009	-0.030	-0.035	-0.033	-0.041
36	0.001	-0.017	-0.027	-0.029	-0.040
37	0.009	-0.017	0.001	-0.065	-0.055
38	-0.025	0.011	-0.025	-0.015	-0.022
39	0.009	-0.006	-0.008	-0.048	-0.041
40	0.018	-0.027	0.001	-0.025	-0.008
41	0.010	0.010	-0.024	-0.044	-0.037
42	-0.038	-0.043	-0.028	-0.018	0.011
43	-0.006	-0.017	-0.018	-0.042	-0.061
44	-0.005	-0.026	-0.011	-0.022	-0.011
45	0.022	-0.021	-0.012	-0.026	-0.043
46	-0.004	0.004	0.001	-0.005	-0.006
47	0.020	0.044	0.018	0.015	0.011
48	0.027	0.030	0.023	0.002	-0.003
49	-0.004	0.005	0.028	0.016	-0.028
50	0.017	0.015	0.035	0.009	-0.021
51	-0.003	0.012	0.023	0.019	0.018
52	0.023	0.008	0.002	0.010	0.005
53	0.000	0.028	-0.003	-0.011	-0.005
54	-0.011	0.037	0.033	0.030	-0.012
55	0.000	0.046	0.002	0.028	-0.020
56	0.000	0.029	0.031	-0.003	0.015
57	0.005	0.022	0.001	0.016	-0.008
58	0.013	0.026	-0.015	-0.005	0.013
59	-0.042	0.009	0.040	0.018	0.002

60	-0.016	0.019	-0.013	-0.001	-0.030
61	-0.030	-0.001	0.007	0.003	0.006
62	0.003	-0.017	0.004	0.026	0.006
63	-0.013	-0.024	-0.020	-0.023	-0.006
64	0.050	0.009	0.055	0.007	0.032
65	-0.016	0.036	0.008	-0.001	-0.031
66	-0.034	-0.034	0.045	-0.072	-0.030
67	-0.007	0.015	-0.025	-0.056	0.004
68	-0.016	0.008	-0.008	0.008	-0.058
69	-0.017	-0.030	0.025	0.051	0.010
70	-0.006	-0.016	0.009	-0.032	-0.024
71	-0.006	-0.002	-0.029	-0.004	0.005
72	-0.027	0.026	0.023	0.009	-0.016
73	0.007	0.010	0.004	0.002	-0.025
74	0.011	-0.035	-0.023	0.037	0.050
75	-0.018	0.012	0.018	0.005	-0.026
76	0.006	-0.032	0.004	-0.010	-0.015
77	0.000	-0.072	0.009	0.001	0.061
78	-0.026	-0.011	-0.009	-0.031	0.028
79	0.016	-0.044	-0.039	0.024	0.008
80	0.001	0.020	0.025	0.001	-0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.230	1.000			
23	-0.018	0.032	1.000		
24	-0.021	0.078	0.244	1.000	
25	0.237	-0.035	-0.121	-0.180	1.000
26	-0.164	0.337	0.035	0.189	-0.194
27	-0.050	0.030	0.170	0.202	-0.232
28	0.030	-0.029	-0.230	-0.102	0.102
29	0.054	-0.055	-0.030	-0.313	0.021
30	-0.209	0.043	0.007	0.065	-0.277
31	0.185	-0.291	-0.012	-0.089	0.052
32	0.097	-0.066	-0.067	-0.165	0.198
33	-0.047	0.057	0.016	0.016	-0.007
34	0.028	0.007	0.058	0.006	0.006
35	0.005	-0.007	-0.033	-0.011	0.034
36	0.008	-0.011	0.005	0.011	-0.005
37	-0.038	0.022	-0.002	-0.010	-0.009
38	0.018	0.020	-0.004	-0.007	0.001

39	0.006	0.009	-0.028	-0.003	-0.009
40	-0.036	-0.007	-0.008	0.024	-0.019
41	-0.010	0.035	-0.010	0.004	-0.023
42	-0.033	0.002	0.023	0.000	-0.005
43	0.018	-0.012	0.000	-0.010	-0.006
44	0.004	0.000	-0.013	0.003	0.024
45	-0.020	-0.022	0.003	0.002	-0.017
46	-0.019	0.048	-0.012	0.016	-0.033
47	-0.014	0.006	-0.027	-0.033	-0.008
48	-0.014	-0.004	-0.017	-0.003	-0.039
49	-0.054	0.026	0.005	-0.013	-0.021
50	0.001	0.007	-0.032	0.006	-0.026
51	-0.053	0.031	-0.015	-0.009	-0.070
52	-0.044	-0.011	-0.013	0.004	-0.012
53	-0.009	0.017	0.014	0.039	-0.062
54	0.001	-0.026	-0.013	0.002	-0.018
55	-0.001	0.010	0.001	0.004	-0.024
56	-0.013	0.039	-0.043	0.006	-0.006
57	-0.003	0.001	-0.038	-0.023	-0.019
58	0.010	0.009	-0.015	-0.007	0.007
59	0.033	0.004	-0.009	0.014	0.025
60	-0.023	0.015	0.020	-0.012	-0.066
61	-0.005	0.011	0.020	0.031	-0.016
62	-0.009	0.006	-0.018	-0.025	0.014
63	-0.020	-0.032	0.005	0.043	-0.030
64	0.001	-0.009	-0.031	-0.030	-0.025
65	-0.009	-0.027	-0.040	-0.027	-0.004
66	-0.022	-0.030	-0.015	-0.018	-0.038
67	0.019	-0.019	-0.011	0.030	-0.012
68	-0.010	-0.030	0.049	-0.041	-0.004
69	0.016	0.002	0.060	0.003	-0.028
70	0.014	-0.016	0.007	-0.028	0.007
71	0.017	0.049	0.006	0.006	-0.023
72	-0.034	0.009	0.000	-0.060	0.008
73	0.011	-0.017	-0.015	0.013	-0.027
74	0.008	-0.019	0.022	0.001	0.006
75	0.017	-0.047	0.007	-0.006	-0.015
76	0.027	-0.005	0.021	-0.005	0.046
77	-0.038	0.016	-0.013	-0.006	0.003
78	0.010	0.006	-0.039	0.039	-0.019
79	0.021	-0.009	-0.010	0.053	0.012
80	-0.007	-0.043	-0.019	-0.014	-0.001

## ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.305	1.000			
28	-0.037	-0.004	1.000		
29	-0.081	-0.012	0.226	1.000	
30	0.073	0.013	-0.084	-0.155	1.000
31	-0.281	-0.062	0.048	0.189	-0.193
32	-0.261	-0.315	0.140	0.095	-0.213
33	0.039	0.006	-0.075	-0.183	0.234
34	0.028	0.019	-0.028	-0.028	-0.012
35	0.018	0.021	0.025	0.021	-0.019
36	0.034	0.040	0.025	0.022	-0.003
37	0.023	-0.007	0.022	0.044	0.019
38	0.023	0.009	0.037	0.050	-0.028
39	0.035	0.055	0.042	0.052	-0.028
40	0.031	0.051	0.020	0.005	0.014
41	0.029	0.010	0.050	0.021	-0.024
42	-0.006	0.032	0.042	0.041	-0.008
43	0.027	0.030	0.030	0.033	0.009
44	0.022	0.047	0.017	0.023	-0.029
45	0.000	0.024	0.017	0.028	0.001
46	0.071	0.018	0.018	0.030	-0.016
47	0.039	-0.008	0.018	-0.008	-0.007
48	0.004	0.006	0.018	0.012	-0.009
49	0.036	0.010	-0.013	-0.001	-0.055
50	0.050	0.010	0.006	0.017	0.007
51	0.040	0.008	0.009	0.010	0.015
52	0.016	-0.006	0.022	-0.003	-0.011
53	0.004	0.037	-0.013	-0.013	-0.015
54	0.023	-0.011	0.000	-0.042	0.003
55	0.036	-0.008	-0.011	-0.013	0.014
56	0.036	0.005	0.001	-0.043	-0.027
57	0.024	-0.011	0.000	0.010	0.006
58	0.018	-0.002	-0.019	0.007	0.016
59	0.009	-0.030	-0.019	-0.053	0.021
60	0.015	0.056	0.035	0.032	-0.019
61	-0.021	-0.008	-0.026	0.025	0.023
62	0.029	-0.030	0.018	0.033	0.029
63	-0.023	-0.041	-0.005	-0.011	0.056
64	0.016	-0.011	0.006	0.030	-0.017
65	-0.012	-0.004	-0.002	-0.011	0.010
66	0.024	0.048	0.018	0.044	0.018

67	-0.009	0.010	-0.026	-0.042	0.006
68	0.000	0.019	-0.007	-0.006	0.020
69	0.007	0.040	0.004	0.007	0.004
70	0.023	-0.022	0.007	-0.013	-0.053
71	-0.002	0.009	0.023	0.019	0.009
72	0.000	-0.023	0.018	0.053	0.014
73	0.004	0.018	0.050	0.016	-0.005
74	-0.027	-0.042	0.003	0.010	-0.013
75	-0.031	-0.021	-0.066	0.017	0.018
76	-0.040	0.011	0.034	0.002	0.010
77	0.008	0.012	0.011	0.000	0.003
78	-0.031	-0.011	0.024	-0.018	-0.013
79	0.021	0.025	0.006	-0.001	-0.007
80	-0.012	-0.031	-0.012	0.029	-0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.288	1.000			
33	-0.313	-0.328	1.000		
34	0.031	-0.037	0.031	1.000	
35	0.019	-0.050	0.000	0.367	1.000
36	0.006	-0.051	-0.010	0.382	0.659
37	-0.023	-0.005	0.015	0.292	0.448
38	0.010	-0.051	-0.012	0.356	0.583
39	0.022	-0.077	0.001	0.377	0.629
40	0.001	-0.047	0.010	0.341	0.567
41	-0.026	-0.032	0.001	0.279	0.481
42	-0.011	-0.039	0.031	0.239	0.435
43	0.016	-0.076	0.021	0.388	0.657
44	-0.009	-0.025	-0.002	0.347	0.596
45	0.017	-0.088	0.017	0.355	0.594
46	-0.017	-0.049	0.009	0.195	0.348
47	-0.070	-0.020	0.052	-0.102	-0.132
48	-0.068	-0.026	0.010	-0.102	-0.134
49	-0.086	0.004	-0.002	-0.046	-0.064
50	-0.078	-0.054	0.033	-0.107	-0.104
51	-0.080	-0.029	0.002	-0.070	-0.089
52	-0.049	0.022	-0.001	-0.089	-0.098
53	-0.038	-0.016	-0.026	-0.066	-0.110
54	-0.003	-0.021	0.012	-0.040	-0.050
55	-0.094	-0.048	0.051	-0.082	-0.085

56	-0.090	-0.049	0.035	-0.089	-0.091
57	-0.063	-0.031	0.009	-0.071	-0.092
58	-0.028	0.018	-0.021	-0.054	-0.093
59	0.017	0.028	0.036	-0.022	0.029
60	-0.013	-0.013	0.013	-0.008	0.023
61	-0.006	-0.017	0.021	0.000	-0.009
62	-0.025	0.000	0.049	-0.036	-0.022
63	-0.011	0.041	-0.003	0.000	-0.017
64	-0.019	-0.019	-0.015	-0.008	-0.030
65	0.042	-0.012	-0.021	0.002	0.007
66	0.003	-0.012	0.034	0.017	0.041
67	-0.014	-0.023	0.013	0.049	0.057
68	-0.020	0.000	0.024	-0.004	0.070
69	0.014	0.014	-0.009	0.059	0.027
70	0.037	0.013	-0.030	0.027	0.068
71	-0.045	0.024	-0.019	0.000	0.019
72	0.023	0.043	-0.024	-0.190	-0.252
73	-0.022	0.006	-0.012	-0.026	0.017
74	0.035	0.009	0.015	0.033	0.011
75	-0.008	-0.002	-0.009	-0.025	-0.031
76	0.054	0.028	-0.015	0.066	0.097
77	0.009	-0.018	-0.011	0.016	-0.007
78	0.025	-0.002	0.003	-0.006	-0.036
79	-0.027	0.042	0.038	-0.005	-0.031
80	0.005	-0.023	0.015	0.057	0.108

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.495	1.000			
38	0.675	0.469	1.000		
39	0.703	0.435	0.637	1.000	
40	0.628	0.433	0.581	0.625	1.000
41	0.543	0.384	0.481	0.505	0.479
42	0.487	0.301	0.421	0.456	0.422
43	0.728	0.476	0.670	0.692	0.641
44	0.686	0.467	0.612	0.647	0.586
45	0.678	0.429	0.620	0.627	0.585
46	0.372	0.245	0.341	0.360	0.333
47	-0.142	-0.087	-0.152	-0.130	-0.100
48	-0.168	-0.114	-0.150	-0.160	-0.138
49	-0.072	-0.096	-0.092	-0.070	-0.055

50	-0.122	-0.079	-0.139	-0.112	-0.098
51	-0.119	-0.080	-0.117	-0.109	-0.078
52	-0.117	-0.084	-0.129	-0.113	-0.114
53	-0.117	-0.082	-0.104	-0.101	-0.077
54	-0.070	-0.035	-0.050	-0.074	-0.036
55	-0.098	-0.078	-0.105	-0.085	-0.104
56	-0.108	-0.068	-0.101	-0.123	-0.092
57	-0.131	-0.111	-0.116	-0.119	-0.087
58	-0.088	-0.068	-0.124	-0.127	-0.095
59	-0.005	0.040	0.062	0.054	0.021
60	0.025	0.028	-0.002	0.042	0.028
61	-0.018	-0.039	-0.040	-0.014	0.000
62	-0.002	-0.023	-0.012	-0.013	-0.033
63	-0.016	0.026	-0.030	-0.002	-0.010
64	0.008	-0.004	0.008	0.003	-0.012
65	-0.003	-0.007	-0.034	-0.043	-0.016
66	-0.006	-0.004	-0.002	0.006	0.060
67	0.055	0.034	0.053	0.045	0.050
68	0.070	0.040	0.072	0.050	0.058
69	0.071	0.006	0.047	0.064	0.045
70	0.045	0.037	0.039	0.050	0.053
71	0.009	0.019	0.020	0.024	0.040
72	-0.281	-0.173	-0.274	-0.285	-0.247
73	-0.009	0.000	-0.021	-0.002	0.022
74	0.046	0.038	0.037	0.038	0.038
75	-0.049	-0.048	-0.028	-0.044	-0.051
76	0.083	0.073	0.087	0.084	0.059
77	-0.018	-0.017	-0.023	-0.043	-0.002
78	-0.033	-0.017	-0.022	-0.033	-0.011
79	-0.018	0.000	-0.035	-0.058	-0.023
80	0.134	0.081	0.131	0.121	0.100

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.344	1.000			
43	0.539	0.479	1.000		
44	0.494	0.443	0.664	1.000	
45	0.496	0.433	0.679	0.603	1.000
46	0.285	0.222	0.373	0.342	0.354
47	-0.079	-0.098	-0.157	-0.153	-0.106
48	-0.088	-0.119	-0.176	-0.161	-0.130



49	-0.027	-0.056	-0.094	-0.102	-0.079
50	-0.092	-0.094	-0.139	-0.147	-0.113
51	-0.070	-0.092	-0.115	-0.137	-0.106
52	-0.073	-0.086	-0.136	-0.125	-0.091
53	-0.083	-0.121	-0.123	-0.124	-0.073
54	-0.051	-0.080	-0.065	-0.060	-0.077
55	-0.055	-0.068	-0.127	-0.104	-0.081
56	-0.039	-0.103	-0.131	-0.139	-0.087
57	-0.059	-0.086	-0.128	-0.141	-0.121
58	-0.071	-0.068	-0.092	-0.102	-0.046
59	0.024	0.005	0.023	0.019	0.014
60	0.036	0.042	0.059	0.017	0.010
61	0.016	0.000	-0.002	-0.033	-0.020
62	-0.001	-0.023	-0.029	0.012	0.013
63	0.006	-0.018	-0.047	-0.017	-0.039
64	-0.009	-0.031	-0.051	0.015	0.026
65	-0.026	0.010	-0.013	-0.043	-0.016
66	0.017	0.007	0.011	0.000	-0.006
67	0.062	0.040	0.048	0.037	0.024
68	0.053	0.059	0.073	0.067	0.035
69	0.035	0.049	0.061	0.021	0.053
70	0.013	0.003	0.025	0.067	0.036
71	0.038	0.024	0.025	0.005	0.001
72	-0.197	-0.159	-0.285	-0.284	-0.275
73	0.029	-0.018	0.034	-0.009	-0.019
74	0.025	0.012	0.027	0.029	0.028
75	-0.052	-0.044	-0.058	-0.023	-0.029
76	0.058	0.075	0.092	0.104	0.087
77	-0.032	-0.036	-0.004	-0.046	-0.029
78	-0.023	-0.022	-0.044	-0.029	-0.003
79	0.017	0.002	-0.008	-0.041	-0.031
80	0.087	0.066	0.160	0.126	0.126

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.051	1.000			
48	-0.048	0.695	1.000		
49	-0.002	0.454	0.528	1.000	
50	-0.049	0.602	0.694	0.469	1.000
51	-0.046	0.638	0.692	0.464	0.648
52	-0.022	0.603	0.656	0.436	0.596

53	-0.055	0.485	0.571	0.412	0.503
54	-0.028	0.415	0.463	0.357	0.439
55	-0.030	0.547	0.624	0.412	0.558
56	-0.035	0.679	0.723	0.464	0.664
57	-0.005	0.605	0.652	0.452	0.597
58	-0.034	0.315	0.354	0.242	0.338
59	-0.007	-0.068	-0.058	-0.095	-0.063
60	0.028	-0.094	-0.011	0.020	-0.006
61	-0.014	-0.008	-0.131	-0.023	-0.041
62	-0.009	0.031	0.047	-0.056	0.036
63	-0.040	0.004	0.009	0.004	-0.062
64	0.029	0.038	0.054	0.022	0.030
65	-0.011	0.050	0.019	0.063	0.024
66	0.005	0.069	0.034	0.035	0.011
67	0.028	-0.017	-0.003	0.022	0.004
68	-0.006	-0.051	-0.013	-0.007	-0.019
69	0.093	-0.007	-0.031	-0.004	0.028
70	-0.005	-0.044	-0.025	-0.031	-0.046
71	-0.015	0.006	0.003	-0.002	-0.014
72	-0.130	-0.163	-0.150	-0.095	-0.156
73	0.048	0.016	0.026	0.057	0.037
74	0.008	-0.203	-0.217	-0.170	-0.192
75	-0.075	-0.052	-0.042	-0.029	-0.026
76	0.023	-0.544	-0.629	-0.415	-0.568
77	-0.025	0.050	0.023	0.040	0.041
78	0.010	0.058	0.056	0.011	0.046
79	-0.024	0.007	-0.013	-0.032	0.001
80	0.046	0.002	0.031	-0.013	0.038

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.597	1.000			
53	0.537	0.489	1.000		
54	0.420	0.393	0.373	1.000	
55	0.589	0.550	0.459	0.400	1.000
56	0.680	0.625	0.510	0.419	0.591
57	0.638	0.567	0.481	0.375	0.565
58	0.312	0.350	0.298	0.248	0.281
59	-0.083	-0.066	-0.056	-0.025	-0.048
60	-0.015	0.015	0.022	0.006	0.006
61	-0.001	-0.050	-0.040	-0.050	-0.035

62	0.039	0.028	-0.012	0.023	0.002
63	0.015	0.001	0.000	-0.018	0.008
64	-0.087	0.043	0.039	0.081	0.035
65	0.039	-0.042	-0.013	0.024	-0.010
66	0.054	-0.004	0.001	-0.016	0.018
67	-0.006	-0.018	-0.022	-0.016	-0.019
68	-0.025	0.009	-0.047	-0.019	-0.128
69	0.048	0.015	0.018	-0.003	-0.004
70	-0.065	-0.033	-0.051	0.029	-0.067
71	0.011	0.016	0.010	-0.037	0.008
72	-0.154	-0.136	-0.116	-0.110	-0.304
73	0.019	0.004	-0.019	0.015	0.102
74	-0.191	-0.164	-0.174	-0.140	-0.288
75	-0.039	-0.048	0.006	-0.004	0.151
76	-0.581	-0.525	-0.472	-0.376	-0.518
77	0.025	0.001	0.026	-0.001	-0.457
78	0.061	0.020	0.069	0.009	0.074
79	-0.020	0.006	-0.057	0.016	-0.071
80	0.018	0.014	0.047	0.040	0.171

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.626	1.000			
58	0.337	0.336	1.000		
59	-0.054	-0.064	-0.014	1.000	
60	-0.046	0.003	-0.006	0.005	1.000
61	-0.060	0.029	-0.055	-0.014	0.047
62	0.050	0.010	0.017	0.034	0.000
63	0.008	-0.013	0.003	-0.006	-0.022
64	0.048	-0.027	0.069	0.040	-0.009
65	0.042	0.038	0.004	0.022	-0.038
66	0.055	0.054	-0.011	0.009	-0.031
67	0.045	-0.022	-0.010	0.030	-0.007
68	-0.061	-0.082	-0.038	0.041	0.005
69	-0.074	0.031	0.050	-0.014	0.068
70	-0.031	-0.154	-0.028	-0.049	-0.053
71	0.008	-0.015	0.005	0.057	0.017
72	-0.207	-0.137	-0.034	0.009	0.007
73	0.025	0.006	0.004	-0.043	-0.031
74	-0.224	-0.204	-0.139	0.078	0.054
75	-0.011	-0.046	-0.015	0.036	-0.012

76	-0.585	-0.561	-0.306	0.087	-0.020
77	0.034	0.037	0.005	-0.012	-0.034
78	0.044	0.048	0.067	0.006	-0.017
79	-0.002	-0.020	-0.040	-0.011	-0.041
80	0.031	0.003	-0.035	0.055	0.031

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.032	1.000			
63	-0.015	0.018	1.000		
64	-0.122	0.045	0.030	1.000	
65	0.029	0.012	0.029	-0.073	1.000
66	0.070	0.009	-0.015	0.002	0.092
67	-0.008	-0.005	-0.016	-0.033	0.020
68	-0.063	-0.011	0.021	-0.047	-0.028
69	0.080	0.023	-0.035	-0.057	-0.011
70	-0.065	-0.008	0.057	0.060	-0.012
71	0.018	0.016	-0.006	-0.010	-0.015
72	0.045	0.021	0.042	-0.041	0.021
73	0.006	-0.009	-0.002	0.036	0.023
74	-0.041	-0.014	0.027	-0.004	-0.028
75	-0.053	-0.046	-0.043	-0.022	-0.044
76	0.019	-0.040	0.020	-0.042	-0.052
77	0.027	0.038	-0.045	-0.020	0.019
78	-0.034	-0.010	-0.033	0.007	-0.004
79	-0.026	0.026	-0.002	-0.008	0.027
80	-0.104	-0.008	-0.027	0.016	-0.039

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.003	1.000			
68	-0.007	0.022	1.000		
69	-0.016	-0.014	-0.003	1.000	
70	-0.022	-0.016	0.082	-0.030	1.000
71	-0.070	-0.007	0.027	0.016	-0.049
72	-0.007	-0.042	0.011	0.002	-0.059
73	0.005	-0.007	-0.153	-0.002	0.051
74	-0.013	0.046	0.058	-0.008	0.026

75	-0.029	-0.037	-0.066	-0.021	-0.005
76	-0.023	-0.017	0.055	-0.025	0.070
77	0.022	0.028	0.077	-0.011	-0.005
78	-0.031	0.009	-0.558	0.040	0.006
79	0.009	-0.030	0.078	-0.006	0.016
80	-0.007	-0.019	-0.071	-0.009	0.033

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.015	1.000			
73	0.004	-0.029	1.000		
74	0.014	0.004	-0.057	1.000	
75	-0.006	-0.159	0.068	-0.120	1.000
76	0.008	0.140	0.003	0.191	0.017
77	0.047	0.204	-0.143	0.117	-0.275
78	-0.011	0.005	0.167	0.024	0.016
79	0.011	-0.054	-0.055	0.033	0.029
80	-0.013	-0.193	0.164	0.271	0.550

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	1.000				
77	-0.039	1.000			
78	-0.018	-0.068	1.000		
79	0.024	0.077	-0.020	1.000	
80	-0.028	-0.239	0.094	-0.016	1.000

## TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

POTENTIAL          PARAMETER WITH

ITERATION	SCALE REDUCTION	HIGHEST PSR
100	1.079	79
200	1.042	68
300	1.025	78
400	1.009	52
500	1.017	78
600	1.017	75
700	1.017	75
800	1.008	75
900	1.007	75
1000	1.004	72

# Effects of combined practices and a single practice

## SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

## COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	ACC	ACT	EAT	ALC
KESCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990



BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	1.000				
CHOICE15	0.990	0.990			
BULLY15	0.990	0.989	0.990		
PRESS15	0.990	0.989	0.989	0.990	
DUTIES15	0.991	0.990	0.990	0.990	0.991

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

#### UNIVARIATE SAMPLE STATISTICS

#### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/	Mean/	Skewness/	Minimum/ % with	Percentiles
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	Sample Size	Variance	Kurtosis	Maximum	Min/Max	20%/60%	40%/80%	Median
ACC		0.466	0.138	0.000	53.45%	0.000	0.000	0.000
	58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT		0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
	58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT		0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
	58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC		0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
	58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY		0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
	58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY		0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
	58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO		0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
	58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER		0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
	58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN		0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
	58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR		0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
	58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR		0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
	58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL		0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
	58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL		43.091	0.291	0.000	22.41%	0.000	15.000	35.000
	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

# MODEL FIT INFORMATION

Number of Free Parameters 80

# MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.167	0.053	0.000	0.058	0.266	*
CHOICE15	0.031	0.039	0.215	-0.047	0.108	
BULLY15	0.107	0.060	0.038	-0.008	0.229	
DUTIES15	-0.077	0.042	0.033	-0.163	0.006	
PRESS15	-0.045	0.042	0.143	-0.126	0.038	
KES15	0.810	0.095	0.000	0.612	0.990	*
KES15 WITH						
PHY15	0.107	0.014	0.000	0.079	0.135	*
CHOICE15	-0.097	0.019	0.000	-0.135	-0.061	*
BULLY15	0.072	0.014	0.000	0.046	0.100	*
PRESS15	0.062	0.018	0.001	0.028	0.100	*
DUTIES15	-0.073	0.018	0.000	-0.106	-0.036	*
PHY15 WITH						
CHOICE15	-0.098	0.028	0.000	-0.153	-0.046	*
BULLY15	0.039	0.019	0.024	0.000	0.077	*
PRESS15	0.120	0.028	0.000	0.067	0.172	*
DUTIES15	-0.057	0.026	0.018	-0.106	-0.005	*
CHOICE15 WITH						
BULLY15	-0.139	0.025	0.000	-0.189	-0.090	*
PRESS15	-0.194	0.037	0.000	-0.271	-0.124	*
DUTIES15	0.147	0.034	0.000	0.081	0.214	*

BULLY15 WITH						
PRESS15	0.200	0.026	0.000	0.149	0.253	*
DUTIES15	-0.175	0.025	0.000	-0.225	-0.127	*
PRESS15 WITH						
DUTIES15	-0.286	0.034	0.000	-0.357	-0.221	*
Means						
PHY15	0.000	0.025	0.498	-0.048	0.048	
KES15	0.000	0.017	0.491	-0.035	0.033	
CHOICE15	0.001	0.034	0.494	-0.067	0.067	
BULLY15	-0.001	0.024	0.487	-0.048	0.044	
PRESS15	-0.001	0.032	0.491	-0.066	0.060	
DUTIES15	0.002	0.030	0.474	-0.058	0.060	
Variances						
PHY15	0.705	0.029	0.000	0.649	0.762	*
KES15	0.314	0.014	0.000	0.290	0.343	*
CHOICE15	1.193	0.051	0.000	1.099	1.299	*
BULLY15	0.602	0.026	0.000	0.555	0.656	*
PRESS15	1.158	0.050	0.000	1.067	1.267	*
DUTIES15	1.030	0.043	0.000	0.954	1.119	*
Between Level						
PROG BY						
ACC	1.000	0.000	0.000	1.000	1.000	
ACT	3.450	0.695	0.000	2.245	4.995	*
EAT	3.996	0.737	0.000	2.759	5.639	*
ALC	2.672	0.771	0.000	1.394	4.454	*
PHY	3.561	0.711	0.000	2.429	5.183	*
PSY	3.649	0.741	0.000	2.433	5.405	*
SMO	4.137	0.913	0.000	2.631	6.249	*
TER	2.967	0.776	0.000	1.660	4.678	*
BEN	2.072	0.689	0.000	0.820	3.591	*
HPR	4.109	0.766	0.000	2.881	5.888	*
SPR	3.790	0.747	0.000	2.582	5.467	*
CUL	3.322	0.850	0.000	1.797	5.076	*
FEL	70.749	28.438	0.003	20.490	130.429	*
SING BY						
CUL	1.000	0.000	0.000	1.000	1.000	
KESCAT16 ON						

PROG	-0.645	0.393	0.049	-1.494	0.113	
PROGSQ	-2.519	1.296	0.024	-5.208	-0.037	*
SING	0.170	0.239	0.201	-0.249	0.712	
SINGSQ	-0.255	0.570	0.249	-1.532	0.802	
PROG WITH SING	0.003	0.031	0.462	-0.058	0.068	
Intercepts						
ACC	0.460	0.070	0.000	0.328	0.603	*
ACT	0.116	0.135	0.213	-0.163	0.362	
EAT	0.313	0.143	0.022	0.010	0.569	*
ALC	0.051	0.154	0.383	-0.257	0.336	
PHY	0.196	0.144	0.083	-0.100	0.470	
PSY	0.087	0.144	0.247	-0.203	0.370	
SMO	0.311	0.175	0.039	-0.061	0.637	
TER	0.181	0.151	0.118	-0.120	0.464	
BEN	0.045	0.134	0.370	-0.227	0.304	
HPR	0.220	0.147	0.068	-0.082	0.495	
SPR	0.207	0.143	0.074	-0.100	0.492	
CUL	0.014	0.139	0.455	-0.254	0.286	
FEL	42.787	5.730	0.000	31.368	54.066	*
Thresholds						
KESCAT16\$1	-0.618	0.096	0.000	-0.808	-0.436	*
Variances						
PROG	0.060	0.019	0.000	0.035	0.109	*
SING	0.207	0.108	0.000	0.079	0.490	*
Residual Variances						
KESCAT16	0.016	0.027	0.000	0.001	0.097	*
ACC	0.249	0.053	0.000	0.175	0.377	*
ACT	0.452	0.097	0.000	0.300	0.684	*
EAT	0.299	0.076	0.000	0.188	0.496	*
ALC	0.878	0.179	0.000	0.628	1.326	*
PHY	0.479	0.106	0.000	0.330	0.726	*
PSY	0.420	0.098	0.000	0.280	0.659	*
SMO	0.807	0.181	0.000	0.552	1.236	*
TER	0.774	0.164	0.000	0.529	1.159	*
BEN	0.773	0.156	0.000	0.544	1.161	*
HPR	0.358	0.091	0.000	0.229	0.576	*
SPR	0.397	0.094	0.000	0.261	0.637	*
CUL	0.244	0.125	0.000	0.031	0.527	*

FEL	1488.507	299.214	0.000	1056.181	2233.436	*
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# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16	ON						
PHY15		0.124	0.038	0.000	0.043	0.198	*
CHOICE15		0.030	0.038	0.215	-0.045	0.103	
BULLY15		0.073	0.041	0.038	-0.005	0.156	
DUTIES15		-0.069	0.038	0.033	-0.142	0.006	
PRESS15		-0.043	0.040	0.143	-0.120	0.035	
KES15		0.399	0.040	0.000	0.316	0.472	*
KES15	WITH						
PHY15		0.228	0.028	0.000	0.170	0.281	*
CHOICE15		-0.158	0.030	0.000	-0.216	-0.100	*
BULLY15		0.165	0.030	0.000	0.107	0.226	*
PRESS15		0.103	0.029	0.001	0.047	0.162	*
DUTIES15		-0.128	0.030	0.000	-0.184	-0.065	*
PHY15	WITH						
CHOICE15		-0.106	0.030	0.000	-0.164	-0.050	*
BULLY15		0.061	0.030	0.024	0.001	0.117	*
PRESS15		0.133	0.030	0.000	0.075	0.188	*
DUTIES15		-0.067	0.030	0.018	-0.124	-0.005	*
CHOICE15	WITH						
BULLY15		-0.164	0.029	0.000	-0.220	-0.108	*
PRESS15		-0.165	0.030	0.000	-0.227	-0.105	*
DUTIES15		0.133	0.030	0.000	0.073	0.189	*
BULLY15	WITH						
PRESS15		0.239	0.029	0.000	0.180	0.295	*
DUTIES15		-0.223	0.029	0.000	-0.279	-0.163	*
PRESS15	WITH						
DUTIES15		-0.261	0.028	0.000	-0.317	-0.206	*

## Means

PHY15	0.000	0.030	0.498	-0.057	0.057
KES15	-0.001	0.030	0.491	-0.061	0.058
CHOICE15	0.000	0.031	0.494	-0.061	0.061
BULLY15	-0.001	0.030	0.487	-0.062	0.058
PRESS15	-0.001	0.030	0.491	-0.062	0.055
DUTIES15	0.002	0.030	0.474	-0.057	0.059

## Variances

PHY15	1.000	0.000	0.000	1.000	1.000
KES15	1.000	0.000	0.000	1.000	1.000
CHOICE15	1.000	0.000	0.000	1.000	1.000
BULLY15	1.000	0.000	0.000	1.000	1.000
PRESS15	1.000	0.000	0.000	1.000	1.000
DUTIES15	1.000	0.000	0.000	1.000	1.000

## Between Level

## PROG BY

ACC	0.438	0.059	0.000	0.337	0.567	*
ACT	0.782	0.065	0.000	0.630	0.881	*
EAT	0.874	0.043	0.000	0.763	0.934	*
ALC	0.571	0.106	0.000	0.319	0.747	*
PHY	0.786	0.062	0.000	0.631	0.878	*
PSY	0.813	0.060	0.000	0.662	0.895	*
SMO	0.752	0.075	0.000	0.562	0.859	*
TER	0.635	0.095	0.000	0.411	0.787	*
BEN	0.495	0.118	0.000	0.225	0.693	*
HPR	0.860	0.046	0.000	0.741	0.925	*
SPR	0.827	0.053	0.000	0.694	0.909	*
CUL	0.760	0.129	0.000	0.489	0.995	*
FEL	0.412	0.129	0.003	0.126	0.631	*

## SING BY

CUL	0.424	0.110	0.000	0.252	0.670	*
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## KESCAT16 ON

PROG	-0.438	0.223	0.049	-0.808	0.087	
PROGSQ	-0.426	0.163	0.024	-0.649	-0.007	*
SING	0.214	0.249	0.201	-0.296	0.667	
SINGSQ	-0.159	0.219	0.249	-0.531	0.319	

## PROG WITH

SING	0.028	0.234	0.462	-0.443	0.469	
Intercepts						
ACC	0.828	0.142	0.000	0.556	1.105	*
ACT	0.105	0.125	0.213	-0.148	0.343	
EAT	0.277	0.132	0.022	0.008	0.526	*
ALC	0.044	0.132	0.383	-0.209	0.294	
PHY	0.175	0.130	0.083	-0.080	0.430	
PSY	0.080	0.129	0.247	-0.175	0.334	
SMO	0.228	0.130	0.039	-0.042	0.481	
TER	0.156	0.131	0.118	-0.104	0.403	
BEN	0.042	0.129	0.370	-0.212	0.298	
HPR	0.184	0.128	0.068	-0.064	0.442	
SPR	0.183	0.129	0.074	-0.084	0.445	
CUL	0.014	0.128	0.455	-0.220	0.267	
FEL	0.998	0.168	0.000	0.661	1.336	*
Variances						
PROG	1.000	0.000	0.000	1.000	1.000	
SING	1.000	0.000	0.000	1.000	1.000	
Residual Variances						
KESCAT16	0.112	0.144	0.000	0.006	0.540	*
ACC	0.808	0.053	0.000	0.678	0.886	*
ACT	0.389	0.098	0.000	0.224	0.603	*
EAT	0.236	0.074	0.000	0.128	0.417	*
ALC	0.674	0.116	0.000	0.441	0.898	*
PHY	0.383	0.094	0.000	0.230	0.602	*
PSY	0.338	0.094	0.000	0.199	0.562	*
SMO	0.434	0.107	0.000	0.262	0.684	*
TER	0.596	0.115	0.000	0.380	0.831	*
BEN	0.755	0.111	0.000	0.520	0.949	*
HPR	0.260	0.077	0.000	0.145	0.450	*
SPR	0.316	0.086	0.000	0.174	0.518	*
CUL	0.215	0.111	0.000	0.026	0.460	*
FEL	0.830	0.100	0.000	0.602	0.984	*

R-SQUARE

Within Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%



KESCAT16	0.223	0.035	0.000	0.159	0.293
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Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.888	0.144	0.000	0.460	0.994
ACC	0.192	0.053	0.000	0.114	0.322
ACT	0.611	0.098	0.000	0.397	0.776
EAT	0.764	0.074	0.000	0.583	0.872
ALC	0.326	0.116	0.000	0.102	0.559
PHY	0.617	0.094	0.000	0.398	0.770
PSY	0.662	0.094	0.000	0.438	0.801
SMO	0.566	0.107	0.000	0.316	0.738
TER	0.404	0.115	0.000	0.169	0.620
BEN	0.245	0.111	0.000	0.051	0.480
HPR	0.740	0.077	0.000	0.550	0.855
SPR	0.684	0.086	0.000	0.482	0.826
CUL	0.785	0.111	0.000	0.540	0.974
FEL	0.170	0.100	0.000	0.016	0.398

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU  
KESCAT16  
\_\_\_\_\_  
0

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	_____ 0	_____ 0	_____ 0	_____ 0	_____ 0

NU  
PRESS15      DUTIES15

<u>          </u>	<u>          </u>
0	0

LAMBDA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

LAMBDA

PRESS15

DUTIES15

KESCAT16	<u>          </u>	<u>          </u>
	0	0
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

THETA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
	0				
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA

PRESS15

DUTIES15

PRESS15	<u>          </u>	<u>          </u>
	0	

DUTIES15	0	0
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ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 1	<hr/> 2	<hr/> 3	<hr/> 4	

ALPHA	
PRESS15	DUTIES15
<hr/> 5	<hr/> 6

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/> 0	<hr/> 7	<hr/> 8	<hr/> 9	<hr/> 10	
KESCAT16	0	0	0	0	
PHY15	0	0	0	0	
KES15	0	0	0	0	
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	
PRESS15	0	0	0	0	
DUTIES15	0	0	0	0	

BETA	
PRESS15	DUTIES15
<hr/> 11	<hr/> 12
KESCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<hr/> 0	<hr/> 13	<hr/>	<hr/>	<hr/>
KESCAT16	0			
PHY15	0			

KES15	0	14	15		
CHOICE15	0	16	17	18	
BULLY15	0	19	20	21	22
PRESS15	0	23	24	25	26
DUTIES15	0	28	29	30	31

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU
KESCAT16
<u>80</u>

NU	KESCAT16	ACC	ACT	EAT	ALC
	<u>0</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>38</u>	<u>39</u>	<u>40</u>	<u>41</u>	<u>42</u>

NU	HPR	SPR	CUL	FEL
	<u>43</u>	<u>44</u>	<u>45</u>	<u>46</u>

LAMBDA				
PROG	SING	PROGSQ	SINGSQ	KESCAT16
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

KESCAT16	0	0	0	0	0
ACC	0	0	0	0	0
ACT	47	0	0	0	0
EAT	48	0	0	0	0
ALC	49	0	0	0	0
PHY	50	0	0	0	0
PSY	51	0	0	0	0
SMO	52	0	0	0	0
TER	53	0	0	0	0
BEN	54	0	0	0	0
HPR	55	0	0	0	0
SPR	56	0	0	0	0
CUL	57	0	0	0	0
FEL	58	0	0	0	0

THETA					
	KESCAT16	ACC	ACT	EAT	ALC
KESCAT16	0				
ACC	0	59			
ACT	0	0	60		
EAT	0	0	0	61	
ALC	0	0	0	0	62
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	63				
PSY	0	64			
SMO	0	0	65		
TER	0	0	0	66	
BEN	0	0	0	0	67
HPR	0	0	0	0	0

SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA			
	HPR	SPR	CUL	FEL
HPR	<u>68</u>	<u></u>	<u></u>	<u></u>
SPR	0	69		
CUL	0	0	70	
FEL	0	0	0	71

	ALPHA				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

	BETA				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
SING	0	0	0	0	0
PROGSQ	0	0	0	0	0
SINGSQ	0	0	0	0	0
KESCAT16	72	73	74	75	0

	PSI				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	<u>76</u>	<u></u>	<u></u>	<u></u>	<u></u>
SING	77	78			
PROGSQ	0	0	0		
SINGSQ	0	0	0	0	
KESCAT16	0	0	0	0	79

STARTING VALUES FOR WITHIN

TAU

KESCAT16

0.000

NU

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

0.000

0.000

0.000

0.000

0.000

NU

PRESS15

DUTIES15

0.000

0.000

LAMBDA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16

1.000

0.000

0.000

0.000

0.000

PHY15

0.000

1.000

0.000

0.000

0.000

KES15

0.000

0.000

1.000

0.000

0.000

CHOICE15

0.000

0.000

0.000

1.000

0.000

BULLY15

0.000

0.000

0.000

0.000

1.000

PRESS15

0.000

0.000

0.000

0.000

0.000

DUTIES15

0.000

0.000

0.000

0.000

0.000

LAMBDA

PRESS15

DUTIES15

KESCAT16

0.000

0.000

PHY15

0.000

0.000

KES15

0.000

0.000

CHOICE15

0.000

0.000

BULLY15

0.000

0.000

PRESS15

1.000

0.000

DUTIES15

0.000

1.000

THETA

KESCAT16

PHY15

KES15

CHOICE15

BULLY15

KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA	
PRESS15	DUTIES15
<hr/>	<hr/>
PRESS15	0.000
DUTIES15	0.000

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
0.000	0.000	0.000	0.000	0.000	

ALPHA	
PRESS15	DUTIES15
<hr/>	<hr/>
0.000	0.000

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	
KESCAT16	0.000	0.000	0.000	0.000	
PHY15	0.000	0.000	0.000	0.000	
KES15	0.000	0.000	0.000	0.000	
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	
PRESS15	0.000	0.000	0.000	0.000	
DUTIES15	0.000	0.000	0.000	0.000	

BETA	
PRESS15	DUTIES15
<hr/>	<hr/>
KESCAT16	0.000



PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI	
	PRESS15
PRESS15	<u>0.580</u>
DUTIES15	0.000
	<u>0.516</u>

STARTING VALUES FOR BETWEEN

TAU
KESCAT16
<u>-0.352</u>

NU	KESCAT16	ACC	ACT	EAT	ALC
	<u>0.000</u>	<u>0.495</u>	<u>0.208</u>	<u>0.407</u>	<u>0.715</u>

NU	PHY	PSY	SMO	TER	BEN
----	-----	-----	-----	-----	-----

	<u>0.303</u>	<u>0.210</u>	<u>0.237</u>	<u>0.333</u>	<u>0.205</u>
NU					
HPR		SPR	CUL	FEL	
	<u>0.416</u>	<u>0.415</u>	<u>-0.126</u>	<u>45.410</u>	
LAMBDA					
PROG		SING	PROGSQ	SINGSQ	KESCAT16
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>1.000</u>
ACC	1.000	0.000	0.000	0.000	0.000
ACT	1.000	0.000	0.000	0.000	0.000
EAT	1.000	0.000	0.000	0.000	0.000
ALC	1.000	0.000	0.000	0.000	0.000
PHY	1.000	0.000	0.000	0.000	0.000
PSY	1.000	0.000	0.000	0.000	0.000
SMO	1.000	0.000	0.000	0.000	0.000
TER	1.000	0.000	0.000	0.000	0.000
BEN	1.000	0.000	0.000	0.000	0.000
HPR	1.000	0.000	0.000	0.000	0.000
SPR	1.000	0.000	0.000	0.000	0.000
CUL	1.000	1.000	0.000	0.000	0.000
FEL	1.000	0.000	0.000	0.000	0.000
THETA					
KESCAT16		ACC	ACT	EAT	ALC
KESCAT16	<u>0.000</u>				
ACC	0.000	0.125			
ACT	0.000	0.000	0.415		
EAT	0.000	0.000	0.000	0.367	
ALC	0.000	0.000	0.000	0.000	0.694
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000

CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

	THETA PHY	PSY	SMO	TER	BEN
PHY	0.305				
PSY	0.000	0.499			
SMO	0.000	0.000	0.537		
TER	0.000	0.000	0.000	0.684	
BEN	0.000	0.000	0.000	0.000	0.316
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

	THETA HPR	SPR	CUL	FEL
HPR	0.372			
SPR	0.000	0.351		
CUL	0.000	0.000	0.344	
FEL	0.000	0.000	0.000	654.953

	ALPHA PROG	SING	PROGSQ	SINGSQ	KESCAT16
	0.000	0.000	0.000	0.000	0.000

	BETA PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	0.000	0.000	0.000	0.000	0.000
SING	0.000	0.000	0.000	0.000	0.000
PROGSQ	0.000	0.000	0.000	0.000	0.000
SINGSQ	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000

PSI

	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	1.000				
SING	0.000	1.000			
PROGSQ	0.000	0.000	0.000		
SINGSQ	0.000	0.000	0.000	0.000	
KESCAT16	0.000	0.000	0.000	0.000	1.000

PRIORS FOR ALL PARAMETERS	PRIOR MEAN	PRIOR VARIANCE	PRIOR STD. DEV.
Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity
Parameter 31~IW(0.000,7)	infinity	infinity	infinity
Parameter 32~IW(0.000,7)	infinity	infinity	infinity

[illegible]

Parameter 77~IW(0.000,3)	infinity	infinity	infinity
Parameter 78~IW(1.000,3)	infinity	infinity	infinity
Parameter 79~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 80~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	0.629658D-03				
2	0.104181D-03	0.284961D-03			
3	-0.785766D-04	-0.112315D-03	0.115129D-02		
4	0.423533D-04	0.597346D-04	-0.945301D-04	0.557567D-03	
5	0.634164D-04	0.687873D-04	-0.161612D-03	0.181282D-03	0.104089D-02
6	-0.638349D-04	-0.654276D-04	0.126196D-03	-0.139781D-03	-0.244279D-03
7	-0.166736D-04	-0.127265D-04	-0.229669D-04	0.138401D-04	0.753506D-04
8	-0.548319D-04	0.260328D-05	-0.150194D-03	0.322427D-04	-0.115159D-03
9	0.105254D-04	0.560260D-05	0.201065D-05	-0.169809D-04	0.294449D-04
10	0.188276D-04	0.603702D-04	-0.249423D-04	0.183008D-05	0.494484D-04
11	-0.322946D-04	-0.264565D-04	0.103405D-03	0.348767D-05	-0.505554D-04
12	-0.886962D-05	0.756348D-05	0.125381D-03	0.353954D-05	-0.585106D-04
13	0.237985D-04	-0.185368D-04	-0.446783D-04	0.295065D-04	0.434972D-05
14	0.996875D-05	0.598558D-05	-0.239270D-05	0.826967D-05	-0.249800D-04
15	0.162733D-04	0.874471D-05	-0.800862D-05	0.782169D-05	-0.117707D-04
16	-0.155699D-04	0.324081D-05	0.124162D-04	0.923717D-06	-0.152921D-04
17	0.100078D-04	-0.412462D-06	-0.231204D-05	0.930433D-06	-0.109999D-04
18	0.523684D-04	-0.174100D-05	-0.239782D-04	0.285507D-04	0.517366D-04
19	-0.298115D-05	0.736048D-05	-0.868865D-05	0.150518D-04	-0.284156D-05
20	-0.329884D-05	0.383847D-05	-0.433425D-05	0.152252D-04	0.267296D-05
21	0.479069D-06	-0.206455D-05	0.958169D-05	-0.677009D-05	0.730676D-06
22	0.171896D-04	0.226927D-04	-0.298476D-04	0.294001D-04	-0.652928D-05
23	0.657371D-05	0.267595D-05	-0.313273D-05	0.189772D-04	0.166300D-04
24	0.337191D-05	0.178456D-05	0.590229D-05	-0.104985D-05	-0.125763D-05
25	-0.372937D-04	0.183667D-04	-0.312924D-04	-0.183427D-04	-0.159084D-04
26	0.160646D-04	0.909323D-05	-0.217646D-04	-0.205379D-05	-0.120017D-04
27	0.942125D-05	-0.718185D-05	-0.401104D-04	-0.146260D-04	0.245927D-04
28	0.792890D-05	-0.761520D-05	0.168657D-05	-0.224984D-04	-0.199461D-04
29	-0.528145D-05	-0.137148D-04	0.390391D-05	-0.351012D-05	-0.625632D-05
30	0.232894D-04	0.852212D-05	-0.220605D-04	0.124128D-04	0.287565D-05
31	-0.993870D-05	-0.124761D-04	0.477609D-04	-0.106289D-04	-0.327336D-04
32	-0.760643D-05	0.104124D-04	0.153014D-04	0.145095D-05	-0.803307D-04

33	-0.399689D-04	-0.524239D-05	-0.128680D-04	0.700543D-05	0.225658D-04
34	-0.173023D-04	-0.178723D-04	-0.410875D-04	0.284862D-04	-0.143000D-04
35	-0.392761D-05	0.388406D-04	-0.740868D-05	-0.101109D-03	0.319324D-04
36	0.484609D-04	0.153378D-04	0.623216D-04	-0.775163D-04	0.268974D-04
37	0.144453D-03	-0.779475D-05	0.801385D-04	-0.101967D-03	-0.155568D-03
38	0.933601D-04	0.101698D-03	-0.108178D-03	-0.133552D-04	0.391477D-04
39	0.116123D-03	0.579270D-04	-0.679314D-04	-0.680216D-04	0.864542D-04
40	0.791131D-04	0.465763D-04	-0.422721D-04	0.660067D-05	0.192922D-03
41	0.965238D-04	0.607643D-04	-0.205956D-03	-0.307214D-04	0.373757D-04
42	0.129846D-04	0.429267D-04	0.859388D-04	-0.779054D-04	-0.119114D-03
43	0.639232D-04	0.129115D-03	-0.959086D-04	-0.756383D-04	-0.365196D-04
44	0.136209D-03	0.654830D-04	0.386757D-04	-0.416810D-04	0.852881D-04
45	0.142491D-04	0.438673D-04	-0.839753D-04	-0.289602D-04	-0.335221D-04
46	0.589778D-02	0.395285D-03	0.278100D-02	-0.153811D-02	0.621692D-02
47	-0.761218D-04	0.605069D-03	-0.762855D-03	0.355751D-03	0.613570D-03
48	-0.668534D-04	0.473925D-03	-0.140325D-02	0.114816D-03	-0.319721D-03
49	-0.802121D-03	0.405757D-03	-0.960134D-03	0.482987D-03	0.460583D-03
50	0.277086D-03	0.527100D-03	-0.567559D-03	0.646492D-03	-0.362002D-03
51	0.142586D-03	0.664916D-03	-0.834725D-03	0.485982D-03	0.305688D-03
52	-0.338761D-03	0.666604D-03	-0.945790D-03	0.169741D-03	-0.201261D-03
53	-0.348190D-04	0.608997D-03	-0.138645D-02	0.425594D-03	0.562742D-03
54	-0.369079D-03	0.294376D-03	-0.353127D-03	0.416627D-03	0.115100D-03
55	-0.320962D-03	0.751959D-03	-0.120134D-02	0.235560D-03	0.320041D-03
56	-0.107490D-04	0.626101D-03	-0.144592D-02	0.536543D-03	-0.192729D-03
57	-0.175130D-04	0.595838D-03	-0.792475D-03	0.420381D-03	0.639893D-03
58	-0.100795D-01	-0.269821D-02	-0.114048D-01	0.400215D-01	-0.293225D-01
59	0.490826D-04	0.622524D-05	-0.200610D-04	0.427867D-04	0.351890D-05
60	-0.417110D-04	0.780796D-04	-0.349106D-04	-0.680085D-04	0.845687D-04
61	0.110990D-03	-0.513599D-04	-0.664050D-04	0.326478D-04	0.135641D-03
62	0.966436D-04	0.370772D-04	0.411036D-04	-0.102734D-03	0.209235D-03
63	0.136903D-04	0.433320D-04	0.444195D-04	-0.651025D-04	-0.544795D-06
64	-0.894504D-04	-0.372446D-04	-0.430140D-04	-0.177845D-04	-0.116843D-04
65	0.475729D-04	-0.464268D-04	-0.147612D-04	0.114642D-03	0.937700D-05
66	-0.789474D-06	0.553542D-05	0.200352D-03	-0.644916D-04	-0.228062D-03
67	-0.546098D-04	-0.868125D-04	0.511513D-04	-0.359776D-04	-0.472828D-04
68	-0.706098D-04	0.503832D-04	-0.573437D-04	-0.397033D-04	0.297620D-04
69	0.156866D-03	0.102802D-03	-0.224348D-05	0.209838D-04	0.800629D-04
70	0.105887D-03	-0.406205D-04	0.872764D-04	0.558919D-04	0.910867D-04
71	0.971048D-01	0.241495D+00	-0.324950D+00	0.158222D+00	0.628849D+00
72	-0.216499D-03	-0.139945D-03	0.239483D-03	-0.107034D-03	-0.432877D-03
73	-0.177037D-04	0.367915D-04	0.408509D-03	-0.662498D-04	-0.141388D-03
74	-0.704480D-03	-0.657363D-03	-0.408158D-03	-0.284002D-03	-0.700815D-05
75	-0.141011D-03	0.230752D-03	-0.770287D-03	-0.549549D-03	0.141096D-03
76	-0.765140D-05	-0.131979D-04	0.273726D-04	-0.207409D-04	-0.133378D-05

77	-0.125962D-04	0.717964D-05	0.102831D-04	-0.730677D-05	-0.867992D-05
78	-0.815393D-04	0.403402D-04	0.357688D-04	-0.768687D-04	-0.163467D-04
79	0.892948D-06	-0.210211D-05	-0.137979D-04	-0.387179D-04	-0.190634D-04
80	-0.344587D-04	0.557718D-04	-0.106811D-03	-0.125901D-03	-0.490179D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.914501D-03				
7	-0.696070D-05	0.276109D-02			
8	-0.708754D-05	-0.519296D-03	0.898170D-02		
9	0.182759D-05	0.304460D-04	0.298836D-03	0.155263D-02	
10	-0.859248D-04	0.154864D-03	-0.318541D-03	0.228031D-03	0.361925D-02
11	0.494536D-04	-0.219604D-03	-0.119644D-03	0.172935D-03	-0.326534D-03
12	-0.360366D-05	-0.258918D-04	0.309260D-03	-0.153952D-03	0.310342D-03
13	0.381243D-06	-0.240663D-04	-0.549776D-04	-0.372093D-04	0.193419D-04
14	-0.754014D-05	-0.435141D-05	0.207337D-04	-0.321248D-04	0.288095D-04
15	-0.166956D-04	-0.976822D-05	0.154816D-04	-0.872149D-05	0.214000D-05
16	0.229485D-04	0.134551D-04	-0.118860D-03	0.215632D-04	0.134120D-04
17	-0.135294D-04	0.306053D-04	0.136250D-04	-0.113498D-04	0.722413D-05
18	0.322062D-04	-0.523155D-04	0.528826D-04	-0.103100D-03	-0.716357D-04
19	-0.124880D-04	0.999108D-05	0.659561D-04	-0.109084D-04	0.140057D-04
20	-0.901949D-05	0.126540D-05	0.394081D-04	-0.877788D-05	0.125252D-04
21	-0.929721D-05	0.208091D-04	-0.830857D-05	0.243439D-04	0.515567D-04
22	-0.143711D-04	0.135874D-04	0.150226D-03	-0.197959D-04	0.631880D-05
23	-0.168150D-04	0.362119D-04	0.271771D-04	-0.776030D-05	0.273241D-04
24	-0.344988D-04	-0.879001D-05	0.116981D-04	-0.125874D-04	-0.216906D-04
25	0.164078D-04	0.182751D-04	0.434392D-04	0.301956D-04	0.561776D-04
26	-0.240849D-04	-0.212827D-04	0.740626D-04	-0.685583D-05	-0.261796D-04
27	-0.638970D-05	-0.653976D-05	-0.607912D-04	0.489119D-04	-0.854738D-04
28	0.232796D-05	-0.161938D-04	-0.259968D-04	0.515218D-04	0.365959D-04
29	0.116580D-05	0.437831D-05	0.101853D-04	-0.154240D-06	0.194695D-05
30	0.318952D-04	0.695176D-05	-0.795406D-05	-0.341877D-04	-0.716422D-04
31	0.369462D-04	-0.724976D-05	-0.768035D-05	0.343887D-04	-0.257513D-04
32	0.347841D-04	-0.513985D-04	0.495507D-04	0.322166D-04	0.816460D-04
33	0.370454D-05	0.501072D-04	-0.726729D-05	-0.321340D-04	-0.836953D-04
34	0.803991D-04	0.206132D-03	-0.148207D-03	-0.515981D-04	0.422805D-04
35	0.838049D-04	-0.139244D-03	-0.306838D-04	0.111195D-03	-0.202701D-03
36	0.136989D-03	-0.527309D-04	0.970312D-04	0.234703D-03	-0.636548D-03
37	0.101294D-03	-0.528574D-04	-0.311186D-04	0.173001D-03	-0.530114D-03
38	0.143746D-03	-0.262758D-03	0.104347D-03	0.134717D-03	-0.157711D-03
39	0.126510D-03	-0.174113D-03	0.192804D-03	0.333482D-03	-0.237789D-03
40	0.178498D-03	0.125371D-03	0.385441D-03	0.406774D-03	-0.483737D-03



41	0.495255D-04	-0.392914D-03	-0.175101D-03	0.929901D-04	-0.377931D-03
42	0.162179D-03	0.694275D-04	0.791442D-04	0.296221D-03	0.156363D-03
43	0.216627D-03	-0.348017D-03	-0.145017D-03	0.284435D-03	-0.304532D-03
44	0.367005D-04	-0.232743D-03	0.109220D-03	0.201545D-03	-0.364857D-03
45	0.868066D-04	-0.237311D-03	0.373603D-03	0.873534D-04	-0.559574D-03
46	-0.285078D-02	0.363334D-02	-0.250881D-02	0.415411D-02	-0.822667D-02
47	-0.121805D-02	0.123789D-02	-0.156205D-02	-0.384261D-04	0.109884D-02
48	-0.140892D-02	0.722335D-04	-0.221543D-02	-0.103921D-02	0.190689D-02
49	-0.932194D-03	-0.408561D-03	-0.383823D-03	0.475740D-03	0.605640D-03
50	-0.124946D-02	0.321143D-03	-0.670608D-03	-0.946589D-03	0.161588D-02
51	-0.146516D-02	-0.238416D-03	-0.108287D-02	-0.173394D-02	0.235312D-02
52	-0.885901D-03	0.865683D-03	-0.273103D-02	-0.133178D-02	0.114991D-02
53	-0.133313D-02	0.123771D-02	-0.785477D-03	-0.122493D-02	0.164016D-02
54	-0.212252D-03	0.108977D-02	0.348836D-04	-0.564516D-03	-0.129478D-02
55	-0.209629D-02	0.684306D-03	-0.753887D-03	-0.832879D-03	0.143119D-02
56	-0.151986D-02	0.131647D-02	-0.228301D-02	-0.804863D-03	0.952555D-03
57	-0.155408D-02	0.164239D-03	-0.199668D-02	-0.905784D-03	0.203648D-02
58	-0.477850D-02	0.223680D-01	0.529879D-01	-0.142680D-01	0.234900D-01
59	0.142836D-04	-0.159952D-03	-0.145458D-03	-0.539986D-04	-0.670771D-04
60	0.679748D-06	-0.128737D-03	0.114826D-03	-0.155781D-03	-0.448389D-04
61	-0.151820D-03	-0.854101D-04	-0.227577D-03	-0.874066D-04	0.677914D-04
62	0.586262D-04	0.212863D-04	0.261817D-03	-0.121837D-03	-0.628488D-04
63	0.109297D-04	0.318617D-04	-0.119996D-03	0.877688D-04	0.116636D-03
64	-0.313088D-04	-0.331253D-04	0.190070D-03	0.368446D-04	-0.226361D-03
65	-0.913908D-04	0.244392D-03	-0.807248D-03	0.864347D-04	0.116598D-03
66	0.117068D-03	0.147717D-03	0.318957D-03	-0.789176D-05	-0.161548D-03
67	0.196125D-04	0.155526D-03	-0.333473D-03	0.113464D-04	0.300904D-03
68	-0.639861D-04	0.589600D-04	0.694216D-04	-0.105329D-03	-0.737724D-04
69	-0.121097D-03	-0.109063D-03	-0.165913D-03	-0.337577D-04	-0.716776D-05
70	0.464098D-04	0.160181D-03	0.621992D-03	-0.318892D-04	-0.176358D-03
71	-0.395019D-01	-0.810796D-01	-0.978728D+00	0.203812D+00	-0.235332D+00
72	0.405041D-03	0.306011D-05	0.677370D-03	-0.116906D-02	-0.785088D-03
73	0.238531D-03	0.374930D-03	0.261687D-04	0.346821D-03	0.587461D-03
74	0.144136D-02	0.397171D-03	-0.297969D-02	0.345498D-03	-0.642445D-03
75	0.906761D-03	0.834431D-03	-0.570711D-04	-0.132263D-02	-0.774713D-04
76	0.402133D-04	-0.170944D-04	0.490065D-04	0.542884D-04	-0.340743D-04
77	-0.788355D-05	0.711697D-05	0.320721D-04	0.148896D-04	-0.200854D-04
78	0.958779D-04	-0.115518D-04	-0.666912D-03	0.620661D-05	0.942854D-04
79	0.248179D-04	-0.704424D-05	0.240222D-03	0.214589D-05	0.630834D-05
80	0.872347D-04	-0.149864D-03	-0.898821D-03	-0.168359D-03	-0.318204D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

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15

11	0.176885D-02				
12	0.381951D-03	0.179588D-02			
13	0.295904D-04	0.854991D-05	0.845203D-03		
14	-0.106851D-05	0.148287D-04	0.137288D-03	0.204582D-03	
15	0.102503D-04	0.980037D-05	0.163510D-04	0.500130D-04	0.184058D-03
16	-0.304956D-04	-0.266051D-04	-0.126638D-03	-0.669413D-04	-0.120824D-04
17	-0.582415D-04	-0.208638D-04	-0.717882D-05	-0.297927D-04	-0.532890D-04
18	0.142509D-04	-0.545372D-05	0.304297D-04	0.654534D-05	0.189083D-04
19	-0.961182D-05	-0.511541D-05	0.325606D-04	0.418171D-04	0.658551D-05
20	0.526914D-05	0.268085D-04	0.672771D-05	0.999069D-05	0.394883D-04
21	-0.597264D-04	-0.278999D-04	-0.177857D-05	-0.615870D-05	-0.217278D-04
22	-0.136928D-04	0.943266D-05	-0.424675D-04	-0.239990D-05	0.888634D-05
23	0.387336D-04	-0.132673D-04	0.124952D-03	0.615275D-04	0.156249D-04
24	0.268609D-04	0.954761D-05	0.218469D-04	0.447597D-04	0.429066D-04
25	-0.419732D-04	0.683539D-04	-0.642893D-05	0.688234D-06	0.706731D-05
26	0.131728D-04	0.580303D-05	-0.108242D-05	-0.576162D-05	0.773169D-05
27	0.604533D-04	-0.940001D-04	0.368108D-04	0.213744D-04	0.306772D-04
28	0.267383D-05	-0.216021D-04	-0.531169D-04	-0.478381D-04	-0.675645D-05
29	-0.144181D-04	-0.183666D-04	0.204664D-04	-0.233113D-04	-0.448771D-04
30	-0.399235D-04	-0.220103D-04	0.609734D-05	-0.906964D-05	0.354519D-05
31	-0.488554D-05	-0.346896D-04	0.602798D-05	0.351260D-05	-0.136597D-04
32	-0.243201D-04	0.333731D-04	-0.640196D-05	-0.958453D-05	-0.841141D-05
33	0.447688D-04	0.280488D-04	0.176173D-04	-0.121638D-04	0.136095D-04
34	0.112993D-03	0.154186D-03	-0.929342D-05	-0.244533D-04	-0.226906D-04
35	0.102385D-03	0.849662D-04	-0.299663D-04	0.484736D-04	0.125215D-04
36	0.197403D-03	0.123615D-06	-0.135415D-03	-0.145414D-05	0.406574D-04
37	0.218779D-03	0.122402D-03	-0.731277D-05	-0.308740D-04	-0.215936D-04
38	0.259819D-03	0.150421D-03	-0.148781D-03	0.236512D-05	0.186079D-04
39	0.237996D-03	0.506660D-04	-0.169755D-03	-0.335866D-04	0.614063D-04
40	0.120248D-03	-0.240987D-03	-0.182238D-03	0.735013D-04	0.397371D-04
41	0.270083D-03	0.304119D-03	-0.423703D-04	-0.595286D-04	-0.205035D-04
42	0.287053D-03	0.296637D-04	-0.113701D-03	0.325162D-05	0.476595D-04
43	0.233000D-03	0.240572D-04	-0.205328D-03	-0.175624D-04	0.258935D-04
44	0.727901D-04	-0.829080D-05	-0.730911D-04	-0.559082D-04	0.466228D-04
45	0.124368D-03	0.180522D-03	-0.175952D-03	0.336468D-05	0.104724D-04
46	0.221874D-02	0.214578D-02	-0.940832D-02	-0.352994D-02	-0.187322D-02
47	0.183699D-03	-0.757609D-03	-0.145596D-03	-0.208424D-03	-0.597015D-03
48	-0.313189D-04	-0.682477D-03	0.407871D-03	-0.886890D-04	-0.391985D-03
49	0.393462D-03	-0.149140D-02	-0.435749D-03	-0.484468D-03	-0.223318D-03
50	-0.174563D-02	-0.144209D-02	0.201962D-03	0.739082D-04	-0.177172D-03
51	-0.328784D-03	-0.846392D-03	0.565725D-03	0.502988D-04	-0.835297D-04
52	-0.790822D-03	-0.225271D-02	-0.204196D-03	0.628705D-04	-0.430283D-04
53	-0.976427D-03	-0.146046D-02	0.151313D-03	0.980373D-04	-0.299191D-03

54	-0.449320D-03	-0.127300D-02	-0.144899D-04	0.937604D-05	-0.365903D-04
55	-0.629927D-03	-0.227093D-02	-0.318225D-03	-0.201011D-03	-0.226762D-03
56	-0.321304D-03	-0.113622D-02	0.581429D-04	-0.113503D-03	-0.342828D-03
57	-0.634560D-03	-0.132697D-02	-0.118866D-02	-0.504321D-03	0.333923D-03
58	-0.413717D-02	-0.216062D-01	0.160054D-01	-0.229386D-01	-0.250828D-01
59	0.134038D-03	0.556144D-04	0.193928D-04	0.419697D-04	0.210388D-04
60	-0.167022D-03	0.973632D-05	0.363240D-05	-0.290637D-04	-0.384664D-04
61	-0.126236D-03	-0.146970D-04	-0.205726D-04	-0.562515D-05	-0.408740D-05
62	-0.717196D-04	0.832848D-04	-0.284840D-04	-0.234484D-05	-0.537665D-05
63	0.202080D-03	0.435929D-04	0.153554D-04	0.234916D-04	0.202052D-04
64	0.189156D-04	-0.926513D-04	-0.873454D-04	-0.721857D-04	0.110775D-04
65	0.283457D-03	-0.175679D-03	0.168536D-03	-0.533126D-04	-0.396740D-04
66	0.157984D-03	-0.189639D-03	0.678264D-05	-0.619921D-04	0.292322D-04
67	-0.139429D-03	-0.437564D-04	0.611199D-04	0.125252D-04	0.814894D-04
68	0.125594D-03	0.489230D-04	0.207405D-03	0.959238D-04	-0.190154D-04
69	-0.132567D-04	-0.182554D-04	0.657089D-04	0.466838D-05	0.163193D-04
70	-0.250620D-03	0.634755D-04	0.666649D-04	0.323529D-04	0.302330D-04
71	0.825575D+00	0.157868D+00	0.243689D+00	0.720759D-01	-0.111447D+00
72	-0.957851D-03	-0.288197D-03	-0.240724D-03	-0.478855D-04	0.416931D-04
73	0.689421D-03	0.412634D-03	0.980184D-04	-0.358956D-04	-0.353644D-04
74	0.228516D-02	-0.299208D-03	-0.141756D-03	-0.477393D-04	-0.346173D-04
75	-0.284104D-03	0.423486D-05	-0.122567D-04	-0.381788D-04	-0.183194D-03
76	0.455442D-04	0.262649D-04	0.345836D-05	-0.201314D-06	0.535791D-05
77	0.133482D-04	0.586423D-04	0.247994D-04	0.721514D-05	-0.182960D-04
78	0.241447D-03	-0.104230D-03	0.312346D-04	-0.519975D-04	-0.549045D-04
79	0.434645D-04	0.167177D-04	-0.138977D-04	0.109020D-04	0.120649D-04
80	0.119364D-03	0.926402D-04	-0.161643D-04	-0.350066D-04	-0.504502D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	16	17	18	19	20
16	0.772904D-03				
17	0.116946D-03	0.363646D-03			
18	-0.235558D-03	-0.206980D-03	0.259668D-02		
19	-0.976765D-04	-0.136089D-04	-0.125902D-04	0.377201D-03	
20	-0.246122D-04	-0.476353D-04	0.285581D-04	0.582301D-04	0.183145D-03
21	0.778694D-04	0.948203D-04	-0.310332D-03	-0.527445D-04	-0.564771D-04
22	-0.573111D-05	-0.249850D-04	0.405228D-04	0.410761D-04	0.807377D-04
23	-0.140573D-03	-0.267070D-04	0.136537D-04	0.131630D-03	0.181326D-04
24	-0.361677D-04	-0.647714D-04	0.282006D-04	0.209773D-04	0.629396D-04
25	0.161433D-03	0.119027D-03	-0.460404D-03	0.528320D-05	-0.886219D-05
26	-0.201423D-04	-0.278295D-04	0.707360D-04	0.664012D-04	0.412359D-04
27	-0.113348D-04	-0.371789D-04	0.711629D-04	0.186822D-04	-0.249075D-07

28	0.102011D-03	0.307475D-04	-0.933094D-05	-0.120480D-03	-0.123305D-04
29	0.306017D-04	0.520429D-04	-0.206756D-04	-0.200132D-04	-0.447177D-04
30	-0.123297D-03	-0.891691D-04	0.326713D-03	0.285547D-04	0.112347D-04
31	0.213075D-04	0.117042D-04	-0.920796D-04	-0.228255D-04	-0.449657D-04
32	0.484572D-04	0.442149D-04	-0.136972D-03	-0.289269D-04	-0.201553D-04
33	-0.334641D-04	-0.317340D-04	0.133277D-03	0.139066D-04	0.159358D-04
34	-0.226900D-04	-0.218672D-04	-0.996749D-04	0.406157D-04	-0.137483D-05
35	-0.338783D-04	-0.625027D-04	-0.246220D-03	0.277562D-05	-0.467170D-04
36	0.150277D-04	-0.232585D-04	-0.200553D-03	0.243287D-04	-0.451472D-04
37	0.438996D-04	-0.338162D-04	0.202366D-04	-0.119915D-03	-0.923217D-04
38	-0.920607D-04	0.505855D-04	-0.179175D-03	0.575196D-04	-0.111837D-04
39	0.480760D-04	0.840076D-05	-0.479282D-04	-0.410701D-04	-0.464653D-04
40	0.954365D-04	-0.681051D-04	0.184370D-04	0.276760D-04	0.202754D-04
41	0.503971D-04	0.524763D-04	-0.199515D-03	-0.480725D-04	-0.498636D-04
42	-0.138140D-03	-0.963804D-04	-0.190187D-03	0.742629D-05	0.377477D-04
43	0.402115D-04	-0.326423D-04	-0.133577D-03	-0.295677D-04	-0.702517D-04
44	-0.167712D-04	-0.529023D-04	-0.844982D-04	0.463292D-04	0.118655D-04
45	0.616758D-04	-0.578428D-04	-0.144919D-03	0.971698D-04	-0.418944D-04
46	-0.561625D-03	0.785313D-03	0.428903D-03	0.128715D-02	0.243391D-03
47	0.589610D-03	0.212045D-03	0.573156D-03	0.367283D-04	0.176580D-03
48	0.724190D-03	0.737592D-04	0.948322D-03	-0.167787D-03	0.830196D-05
49	-0.100912D-04	-0.210832D-03	0.101352D-02	0.137164D-03	-0.156770D-03
50	0.554303D-03	-0.200241D-03	0.131843D-02	-0.609007D-05	-0.172739D-03
51	0.247728D-03	-0.124322D-03	0.878244D-03	0.862551D-04	0.240539D-03
52	0.657019D-03	-0.258439D-03	0.379012D-03	-0.113673D-03	0.780825D-04
53	0.529629D-04	0.107769D-03	-0.181719D-04	-0.370063D-03	0.241288D-04
54	-0.101837D-03	0.217269D-03	0.110101D-02	0.200045D-03	-0.880174D-04
55	0.316165D-03	-0.701014D-04	0.716849D-04	0.180315D-03	0.373595D-04
56	0.212253D-03	0.430369D-05	0.120484D-02	-0.246805D-03	0.163777D-03
57	0.986748D-04	-0.660449D-04	0.200263D-02	0.413529D-03	0.284233D-03
58	0.134672D-01	0.796186D-02	-0.160012D-01	-0.330275D-02	0.737397D-02
59	-0.637439D-04	0.145590D-04	0.113676D-03	0.175285D-04	0.280067D-05
60	-0.357026D-04	0.333454D-04	-0.447182D-04	-0.173859D-05	-0.408019D-04
61	-0.295354D-04	-0.142674D-04	-0.115936D-04	0.696189D-05	0.708928D-05
62	0.510781D-04	-0.394359D-04	0.678618D-04	0.775013D-04	-0.109265D-04
63	-0.371851D-04	-0.361608D-04	-0.138112D-03	-0.647577D-04	-0.170564D-04
64	0.135726D-03	0.874960D-05	0.256384D-03	0.112493D-04	0.336952D-04
65	-0.128115D-04	0.117086D-03	0.581799D-04	0.250313D-04	-0.717018D-04
66	-0.140488D-03	-0.106112D-03	0.338091D-03	-0.227723D-03	-0.789121D-04
67	-0.155260D-04	0.514966D-04	-0.189788D-03	-0.149685D-03	0.750421D-05
68	-0.123402D-03	-0.453384D-04	-0.418541D-05	0.602923D-04	-0.260374D-04
69	-0.542538D-04	-0.612427D-04	0.175491D-03	0.888387D-04	0.177232D-04
70	-0.225490D-04	0.102839D-04	0.608323D-04	-0.557487D-04	-0.116215D-04
71	-0.321266D-01	0.578670D-02	-0.484565D+00	-0.262526D-01	0.135549D-01

72	-0.120764D-03	0.319243D-03	0.689746D-03	0.557083D-04	-0.182933D-03
73	0.110054D-03	0.790041D-04	-0.194038D-03	0.112118D-03	0.131887D-04
74	0.438805D-03	-0.589418D-03	-0.169954D-02	0.110346D-02	0.949871D-03
75	0.923196D-05	0.281849D-03	0.270264D-03	0.357569D-03	-0.801901D-04
76	-0.342760D-05	-0.370954D-05	0.264319D-06	-0.708872D-05	-0.473253D-05
77	0.149085D-04	-0.143697D-04	-0.778343D-04	-0.173532D-04	-0.191484D-05
78	-0.487191D-04	-0.573387D-04	-0.135194D-03	-0.312864D-04	-0.762367D-05
79	0.679694D-05	-0.281976D-04	0.128093D-04	-0.376366D-05	0.250084D-05
80	0.246352D-04	0.610331D-04	0.138780D-03	0.572957D-04	0.289519D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.648186D-03				
22	-0.150934D-03	0.664092D-03			
23	-0.123617D-04	0.225041D-04	0.756529D-03		
24	-0.984522D-05	0.366931D-04	0.122535D-03	0.333437D-03	
25	0.223347D-03	-0.331119D-04	-0.123127D-03	-0.121768D-03	0.136520D-02
26	-0.110306D-03	0.229888D-03	0.255595D-04	0.913804D-04	-0.189847D-03
27	-0.638564D-04	0.387466D-04	0.235491D-03	0.185696D-03	-0.431551D-03
28	0.192730D-04	-0.189321D-04	-0.161540D-03	-0.474440D-04	0.957896D-04
29	0.244013D-04	-0.248221D-04	-0.144319D-04	-0.100588D-03	0.135370D-04
30	-0.183031D-03	0.384603D-04	0.642340D-05	0.409669D-04	-0.350891D-03
31	0.117057D-03	-0.186271D-03	-0.834221D-05	-0.405516D-04	0.479931D-04
32	0.839266D-04	-0.578303D-04	-0.630848D-04	-0.102739D-03	0.249085D-03
33	-0.512330D-04	0.625733D-04	0.188717D-04	0.127956D-04	-0.109989D-04
34	0.607421D-04	0.582899D-06	0.112929D-03	0.187560D-04	-0.255214D-05
35	0.457938D-04	-0.768886D-04	-0.131590D-03	0.812623D-05	0.101226D-03
36	0.663104D-04	-0.103176D-03	0.200026D-04	0.759966D-04	-0.110968D-03
37	-0.131273D-03	0.455749D-04	-0.801611D-05	0.434383D-05	-0.110084D-03
38	0.977110D-04	0.243162D-04	-0.224195D-04	0.191431D-04	-0.648591D-04
39	0.486631D-04	-0.144134D-04	-0.121216D-03	0.312639D-04	-0.125395D-03
40	-0.129149D-03	-0.962287D-04	-0.485024D-04	0.126155D-03	-0.211036D-03
41	-0.115449D-04	0.949474D-04	-0.457846D-04	0.434369D-04	-0.193777D-03
42	-0.998036D-04	-0.276594D-04	0.790373D-04	0.262770D-04	-0.676046D-04
43	0.616246D-04	-0.219898D-04	-0.335771D-04	0.145551D-04	-0.170548D-03
44	0.427060D-04	-0.507459D-04	-0.578237D-04	0.497678D-04	0.503822D-04
45	-0.421845D-04	-0.133161D-03	0.394412D-04	0.115182D-03	-0.191010D-03
46	-0.215728D-02	0.618530D-02	-0.187570D-02	0.268704D-02	-0.870393D-02
47	-0.272642D-03	0.237262D-03	-0.494935D-03	-0.403198D-03	-0.340668D-03
48	-0.266174D-03	-0.548139D-04	-0.306977D-03	-0.294598D-04	-0.106447D-02
49	-0.120658D-02	0.558630D-03	0.141065D-03	-0.133353D-03	-0.690623D-03
50	0.524387D-04	0.326170D-04	-0.576965D-03	0.761194D-04	-0.767064D-03

51	-0.104207D-02	0.661037D-03	-0.283757D-03	-0.995031D-04	-0.185596D-02
52	-0.104838D-02	-0.334367D-03	-0.105576D-03	0.193416D-03	-0.494048D-03
53	-0.254806D-03	0.369360D-03	0.265161D-03	0.618399D-03	-0.177489D-02
54	-0.112162D-03	-0.384739D-03	-0.327790D-03	0.470794D-04	-0.293801D-03
55	-0.106795D-03	0.542325D-03	-0.180052D-03	0.751523D-04	-0.538580D-03
56	-0.279883D-03	0.640600D-03	-0.780349D-03	0.147026D-03	-0.312662D-03
57	-0.188564D-03	0.200294D-03	-0.186262D-03	0.166470D-03	-0.114662D-02
58	0.672898D-03	0.123650D-01	-0.842549D-02	-0.377053D-02	0.183214D-02
59	0.483672D-04	0.583556D-05	-0.169158D-04	0.118493D-04	0.607056D-04
60	-0.683241D-04	0.281889D-04	0.505945D-04	-0.211514D-04	-0.214088D-03
61	-0.153944D-04	0.552451D-04	0.442884D-04	0.506034D-04	-0.802294D-04
62	-0.343623D-04	0.160547D-04	-0.984895D-04	-0.104171D-03	0.995147D-04
63	-0.541607D-04	-0.696039D-04	-0.142170D-04	0.899376D-04	-0.116935D-03
64	0.118857D-04	-0.554918D-04	-0.852913D-04	-0.545608D-04	-0.101182D-03
65	-0.471486D-04	-0.114156D-03	-0.247691D-03	-0.138945D-03	0.570944D-05
66	-0.622023D-04	-0.115999D-03	-0.597849D-04	-0.577771D-04	-0.239687D-03
67	0.941149D-04	-0.843857D-04	-0.290798D-04	0.779101D-04	-0.894673D-04
68	-0.760900D-04	-0.116804D-05	0.715993D-04	-0.919677D-05	-0.235220D-04
69	0.324399D-05	0.383008D-04	0.100982D-03	0.362627D-05	-0.103540D-03
70	-0.366793D-04	0.151757D-03	-0.862120D-05	-0.123007D-07	-0.119426D-03
71	0.174418D+00	0.357393D+00	0.550937D-01	0.234165D-01	-0.233862D+00
72	-0.280464D-03	0.180458D-03	0.120808D-03	-0.424775D-03	-0.717383D-04
73	-0.440992D-04	0.109009D-03	-0.175731D-03	-0.402678D-04	-0.152671D-03
74	0.135365D-03	-0.730162D-04	0.539612D-03	-0.605944D-03	0.199259D-02
75	0.803583D-04	-0.769875D-03	0.207502D-03	-0.929762D-04	-0.278297D-03
76	0.162263D-04	0.478560D-05	0.138881D-04	-0.368225D-05	0.367580D-04
77	-0.851343D-05	0.591913D-05	-0.118299D-04	-0.188174D-04	0.228007D-04
78	0.506994D-04	-0.198891D-03	0.312643D-04	-0.381273D-04	0.129061D-03
79	0.520167D-05	-0.396827D-05	-0.296782D-04	0.307859D-04	-0.735124D-05
80	-0.301241D-04	-0.719157D-04	0.185027D-04	-0.172024D-04	0.797291D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.701519D-03				
27	0.406828D-03	0.254360D-02			
28	-0.247594D-04	-0.546336D-05	0.650485D-03		
29	-0.375471D-04	-0.103356D-04	0.101219D-03	0.309466D-03	
30	0.660861D-04	0.231082D-04	-0.735536D-04	-0.932996D-04	0.117737D-02
31	-0.185016D-03	-0.779225D-04	0.303050D-04	0.825834D-04	-0.164215D-03
32	-0.235317D-03	-0.541533D-03	0.121639D-03	0.569939D-04	-0.248735D-03
33	0.435730D-04	0.118885D-04	-0.819393D-04	-0.137285D-03	0.341952D-03
34	0.395454D-04	0.640829D-04	-0.584901D-04	-0.408076D-04	-0.203210D-04

35	0.119677D-04	0.124341D-03	0.662590D-04	0.302332D-04	-0.509560D-04
36	0.694884D-04	0.283387D-03	0.690466D-04	0.282661D-04	0.200995D-04
37	0.498714D-04	-0.883566D-04	0.629888D-04	0.971687D-04	0.136307D-03
38	0.268852D-04	0.192960D-04	0.109258D-03	0.103828D-03	-0.104053D-03
39	0.805059D-04	0.368220D-03	0.132069D-03	0.110369D-03	-0.112023D-03
40	0.807292D-04	0.427837D-03	0.637918D-04	-0.160608D-04	0.127341D-03
41	0.721145D-04	0.539951D-04	0.168924D-03	0.333872D-04	-0.101585D-03
42	-0.543266D-04	0.200379D-03	0.132928D-03	0.854036D-04	-0.234467D-04
43	0.128049D-04	0.163505D-03	0.916383D-04	0.260428D-04	0.121226D-03
44	0.272835D-04	0.317323D-03	0.351943D-04	0.306575D-04	-0.112173D-03
45	0.177197D-04	0.162755D-03	0.730911D-04	0.539394D-04	0.852175D-05
46	0.987885D-02	0.443284D-02	0.208985D-02	0.248297D-02	-0.232863D-02
47	0.404390D-03	-0.818453D-03	0.293019D-03	-0.113763D-03	-0.253144D-03
48	-0.175239D-03	-0.387562D-03	0.376008D-03	0.322064D-03	-0.534514D-03
49	0.370526D-03	0.156844D-04	-0.313732D-03	0.463801D-05	-0.145472D-02
50	0.630321D-03	-0.209371D-03	0.167718D-03	0.292163D-03	-0.718996D-04
51	0.436984D-03	-0.273421D-03	0.211914D-03	0.184819D-03	0.744524D-04
52	0.102526D-03	-0.100008D-02	0.452140D-03	-0.824200D-04	-0.575958D-03
53	-0.166227D-03	0.100016D-02	-0.118057D-03	-0.574172D-04	-0.609645D-03
54	0.167195D-03	-0.893925D-03	0.869281D-04	-0.530885D-03	-0.144396D-04
55	0.345016D-03	-0.317955D-03	-0.162253D-04	-0.440863D-04	-0.353464D-03
56	0.362531D-03	-0.203203D-03	0.749607D-04	-0.446387D-03	-0.898752D-03
57	0.299560D-03	-0.545831D-03	0.882909D-04	-0.211934D-03	-0.377125D-03
58	0.107867D-01	-0.537730D-02	-0.114322D-01	0.593974D-02	0.756167D-02
59	0.123184D-04	-0.849773D-04	-0.288464D-04	-0.493351D-04	0.331758D-04
60	0.535643D-04	0.286415D-03	0.814707D-04	0.640833D-04	-0.860632D-04
61	-0.517997D-04	-0.766752D-05	-0.750788D-04	0.263368D-05	0.526185D-04
62	0.135394D-03	-0.313796D-03	0.755607D-04	0.124300D-03	0.104051D-03
63	-0.628757D-04	-0.218761D-03	-0.137737D-04	-0.186242D-04	0.208109D-03
64	0.508474D-04	-0.518446D-04	0.170716D-04	0.662930D-04	-0.442612D-04
65	-0.782549D-04	-0.145646D-04	0.489641D-05	-0.970000D-05	0.398715D-04
66	0.129437D-03	0.416264D-03	0.566771D-04	0.133409D-03	0.762295D-04
67	-0.268267D-04	0.100517D-03	-0.113020D-03	-0.114379D-03	0.347918D-04
68	-0.795960D-05	-0.203845D-04	-0.844928D-04	0.354783D-05	0.671004D-04
69	0.503717D-04	0.186003D-03	-0.585418D-05	-0.207459D-04	-0.419766D-05
70	0.539632D-04	0.270402D-04	0.108702D-03	-0.226622D-05	-0.687269D-04
71	-0.459080D-01	0.101127D+00	0.177966D+00	0.124137D+00	0.939939D-01
72	0.117161D-03	-0.188865D-03	-0.852669D-04	0.291591D-03	0.189367D-03
73	0.159137D-03	0.780746D-04	-0.788938D-04	-0.430024D-04	-0.113455D-04
74	-0.277821D-03	-0.276413D-02	0.123122D-02	0.448274D-03	-0.112946D-02
75	-0.392356D-03	0.747140D-03	-0.690071D-03	-0.128405D-03	0.299245D-03
76	-0.111024D-04	0.166990D-04	0.140279D-04	-0.683433D-06	0.106074D-04
77	0.538912D-05	-0.258195D-04	-0.277395D-05	0.391797D-05	0.165303D-04
78	-0.905098D-04	-0.935984D-04	-0.416258D-04	0.151241D-04	0.185195D-05

79	0.282895D-04	-0.568988D-05	0.731272D-05	-0.180030D-04	-0.110484D-04
80	0.252242D-04	0.459564D-04	0.685079D-04	-0.201889D-04	-0.284020D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	31	32	33	34	35
31	0.616740D-03				
32	0.243895D-03	0.116181D-02			
33	-0.331217D-03	-0.475704D-03	0.181226D-02		
34	0.514135D-04	-0.763770D-04	0.902078D-04	0.489590D-02	
35	0.757434D-04	-0.163336D-03	-0.388743D-04	0.331083D-02	0.182442D-01
36	0.275994D-04	-0.169011D-03	-0.105368D-03	0.363365D-02	0.120692D-01
37	-0.880084D-04	0.352092D-04	0.782949D-04	0.298333D-02	0.877352D-02
38	0.391807D-04	-0.178001D-03	-0.107068D-03	0.345620D-02	0.108788D-01
39	0.831181D-04	-0.308203D-03	-0.309118D-04	0.363437D-02	0.116043D-01
40	0.101909D-04	-0.194239D-03	0.337536D-04	0.392987D-02	0.125803D-01
41	-0.947069D-04	-0.106094D-03	-0.269230D-04	0.280146D-02	0.931412D-02
42	-0.297666D-04	-0.143864D-03	0.160656D-03	0.202512D-02	0.721181D-02
43	0.142603D-05	-0.291326D-03	0.155290D-03	0.372428D-02	0.123849D-01
44	-0.236159D-04	-0.485332D-04	-0.550320D-04	0.331268D-02	0.109952D-01
45	0.803398D-04	-0.302739D-03	0.363046D-04	0.327433D-02	0.104769D-01
46	-0.231126D-02	-0.804604D-02	0.123040D-02	0.705891D-01	0.240100D+00
47	-0.111164D-02	-0.539078D-04	0.158556D-02	-0.466277D-02	-0.983802D-02
48	-0.117523D-02	0.312158D-04	0.100038D-03	-0.513389D-02	-0.109316D-01
49	-0.156735D-02	0.437270D-03	-0.303012D-04	-0.287248D-02	-0.785533D-02
50	-0.126629D-02	-0.718280D-03	0.916900D-03	-0.482137D-02	-0.704122D-02
51	-0.129980D-02	-0.221743D-03	-0.165664D-03	-0.383993D-02	-0.814209D-02
52	-0.879634D-03	0.147647D-02	-0.299090D-03	-0.512550D-02	-0.950068D-02
53	-0.651271D-03	0.277216D-03	-0.956326D-03	-0.340182D-02	-0.968618D-02
54	0.558471D-04	-0.331814D-04	0.208592D-03	-0.102772D-02	-0.226723D-02
55	-0.127047D-02	-0.691613D-03	0.681557D-03	-0.466706D-02	-0.113235D-01
56	-0.137026D-02	-0.610526D-03	0.109464D-02	-0.472690D-02	-0.731388D-02
57	-0.125196D-02	0.648749D-03	-0.575439D-03	-0.525372D-02	-0.889596D-02
58	-0.185427D-01	0.234821D-01	-0.225507D-01	-0.125548D+00	-0.343491D+00
59	0.135261D-04	0.531106D-04	0.836839D-04	-0.959881D-04	0.124600D-03
60	-0.255576D-04	-0.193101D-04	0.840660D-05	-0.435397D-04	0.247260D-03
61	0.269280D-04	-0.698539D-04	0.636527D-04	0.722933D-04	0.126278D-03
62	-0.819809D-04	0.407914D-04	0.330311D-03	-0.479640D-03	-0.655888D-03
63	-0.229987D-04	0.134398D-03	-0.414465D-04	-0.769774D-04	-0.436644D-03
64	-0.191453D-04	-0.218912D-04	-0.847055D-04	-0.101973D-03	-0.500300D-03
65	0.205341D-03	-0.522074D-04	-0.221114D-03	-0.111924D-03	0.987153D-04
66	0.199439D-04	-0.117887D-03	0.190826D-03	0.152897D-03	0.546539D-03
67	-0.581198D-04	-0.149859D-03	0.102286D-03	0.429673D-03	0.971208D-03



68	-0.783008D-05	0.998690D-04	0.253120D-04	-0.292807D-03	-0.105039D-03
69	0.624650D-05	0.297892D-04	-0.995148D-04	0.441766D-03	0.470846D-03
70	-0.924500D-04	0.439410D-04	-0.853661D-04	-0.933404D-05	0.276927D-03
71	-0.317539D+00	0.299374D+00	-0.276102D+00	0.292735D-01	0.756522D+00
72	0.280108D-03	0.331663D-03	-0.489004D-03	-0.518455D-02	-0.144210D-01
73	-0.106261D-03	0.106972D-03	-0.167806D-03	-0.542557D-03	-0.393279D-03
74	0.928788D-03	0.764501D-03	0.145411D-02	0.542096D-02	0.627901D-02
75	-0.920268D-04	-0.862752D-04	-0.133257D-04	0.129112D-02	0.355847D-02
76	0.183972D-04	-0.246651D-05	-0.379369D-05	0.899217D-04	0.190940D-03
77	-0.377229D-05	-0.673383D-04	0.475413D-04	0.106083D-03	0.125432D-03
78	0.121036D-03	-0.104673D-03	0.589066D-04	0.994993D-04	0.336946D-03
79	-0.223195D-04	0.241432D-05	0.375536D-04	0.139628D-04	-0.873696D-04
80	-0.388606D-04	-0.318869D-04	0.252474D-04	0.479608D-03	0.174806D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.204847D-01				
37	0.103259D-01	0.237640D-01			
38	0.135188D-01	0.100068D-01	0.208443D-01		
39	0.138591D-01	0.900745D-02	0.127441D-01	0.207603D-01	
40	0.149595D-01	0.109517D-01	0.141264D-01	0.149673D-01	0.305609D-01
41	0.112709D-01	0.846280D-02	0.101450D-01	0.104196D-01	0.120222D-01
42	0.861932D-02	0.554942D-02	0.748992D-02	0.805315D-02	0.901119D-02
43	0.146208D-01	0.103500D-01	0.138226D-01	0.140811D-01	0.158762D-01
44	0.136295D-01	0.985766D-02	0.123380D-01	0.128470D-01	0.140829D-01
45	0.126660D-01	0.817062D-02	0.120364D-01	0.120971D-01	0.138208D-01
46	0.273951D+00	0.189855D+00	0.254113D+00	0.264246D+00	0.298231D+00
47	-0.114848D-01	-0.667158D-02	-0.124134D-01	-0.112087D-01	-0.928613D-02
48	-0.161262D-01	-0.104429D-01	-0.135220D-01	-0.159875D-01	-0.156548D-01
49	-0.979378D-02	-0.131629D-01	-0.105753D-01	-0.911236D-02	-0.905224D-02
50	-0.995315D-02	-0.557406D-02	-0.124731D-01	-0.102507D-01	-0.960936D-02
51	-0.128960D-01	-0.812199D-02	-0.123804D-01	-0.127305D-01	-0.107818D-01
52	-0.134586D-01	-0.961279D-02	-0.151467D-01	-0.138940D-01	-0.167424D-01
53	-0.118433D-01	-0.739677D-02	-0.102486D-01	-0.109926D-01	-0.871451D-02
54	-0.545759D-02	-0.267287D-02	-0.362784D-02	-0.641125D-02	-0.276078D-02
55	-0.160006D-01	-0.100716D-01	-0.155296D-01	-0.165941D-01	-0.166412D-01
56	-0.105303D-01	-0.598574D-02	-0.942979D-02	-0.126183D-01	-0.107414D-01
57	-0.123541D-01	-0.950109D-02	-0.129119D-01	-0.128470D-01	-0.125941D-01
58	-0.354368D+00	-0.246127D+00	-0.495772D+00	-0.526390D+00	-0.467253D+00
59	-0.127978D-03	0.260354D-03	0.378393D-03	0.326467D-03	0.111904D-03
60	0.155247D-03	0.437108D-03	-0.953886D-04	0.526768D-03	0.438985D-03
61	-0.677596D-04	-0.269572D-03	-0.314479D-03	-0.302485D-04	-0.806733D-04

62	-0.181860D-03	-0.601648D-03	-0.602083D-03	-0.561106D-03	-0.134337D-02
63	-0.376218D-03	0.198195D-03	-0.487755D-03	-0.436838D-04	-0.407466D-03
64	0.230778D-05	-0.145921D-03	0.996827D-04	0.239329D-04	-0.205292D-03
65	-0.513360D-03	-0.420591D-03	-0.115193D-02	-0.142087D-02	-0.105526D-02
66	-0.615492D-03	-0.454621D-03	-0.414310D-03	-0.179614D-03	0.109402D-02
67	0.993916D-03	0.761770D-03	0.103647D-02	0.814741D-03	0.991422D-03
68	0.162973D-04	0.917464D-04	-0.156579D-03	-0.495647D-03	-0.169109D-03
69	0.109464D-02	0.310863D-03	0.951488D-03	0.963352D-03	0.893343D-03
70	0.127872D-03	0.415928D-03	0.346161D-03	-0.365244D-03	0.342789D-03
71	0.322126D+00	0.917500D+00	0.823852D+00	0.103315D+01	0.209486D+01
72	-0.163778D-01	-0.105506D-01	-0.158769D-01	-0.157179D-01	-0.178346D-01
73	-0.480702D-03	0.938364D-03	-0.677357D-03	-0.810799D-03	-0.189351D-03
74	0.914525D-02	0.511282D-02	0.752933D-02	0.724417D-02	0.850445D-02
75	0.218209D-02	0.241353D-02	0.326080D-02	0.324488D-02	0.194804D-02
76	0.175586D-03	0.153436D-03	0.168972D-03	0.195366D-03	0.121453D-03
77	0.775117D-04	-0.327932D-04	0.126148D-03	0.107569D-03	0.271827D-04
78	0.395627D-03	-0.164642D-03	0.143158D-03	0.707077D-03	0.274501D-03
79	-0.388728D-04	0.780049D-05	-0.663594D-04	-0.197459D-03	-0.752649D-04
80	0.198187D-02	0.180987D-02	0.194199D-02	0.183987D-02	0.189228D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.228526D-01				
42	0.636446D-02	0.179730D-01			
43	0.114898D-01	0.867671D-02	0.216707D-01		
44	0.102772D-01	0.787962D-02	0.136375D-01	0.205561D-01	
45	0.989307D-02	0.738973D-02	0.133259D-01	0.113939D-01	0.192359D-01
46	0.223481D+00	0.144752D+00	0.281913D+00	0.253227D+00	0.255406D+00
47	-0.445925D-02	-0.709656D-02	-0.103206D-01	-0.133734D-01	-0.913305D-02
48	-0.725519D-02	-0.109945D-01	-0.150934D-01	-0.158056D-01	-0.130778D-01
49	-0.348585D-02	-0.542157D-02	-0.931564D-02	-0.136920D-01	-0.106651D-01
50	-0.700961D-02	-0.740081D-02	-0.100603D-01	-0.133283D-01	-0.999167D-02
51	-0.720866D-02	-0.895481D-02	-0.108043D-01	-0.154472D-01	-0.102676D-01
52	-0.776784D-02	-0.925380D-02	-0.134377D-01	-0.151580D-01	-0.106495D-01
53	-0.874672D-02	-0.116876D-01	-0.974449D-02	-0.134132D-01	-0.829631D-02
54	-0.396788D-02	-0.736710D-02	-0.476744D-02	-0.432735D-02	-0.410770D-02
55	-0.941992D-02	-0.100650D-01	-0.163972D-01	-0.174667D-01	-0.123291D-01
56	-0.197207D-02	-0.851465D-02	-0.106214D-01	-0.149888D-01	-0.907310D-02
57	-0.601378D-02	-0.100040D-01	-0.127092D-01	-0.145654D-01	-0.144273D-01
58	-0.265607D+00	-0.292572D+00	-0.263432D+00	-0.445106D+00	-0.213803D+00
59	0.103424D-03	-0.361254D-04	0.151177D-03	0.501938D-04	0.121929D-03
60	0.311544D-03	0.360669D-03	0.647773D-03	0.146624D-03	0.231642D-03

61	0.302223D-03	0.151684D-03	0.143366D-03	-0.263999D-03	-0.367766D-04
62	-0.275772D-03	-0.815441D-03	-0.141391D-02	0.138505D-03	0.147894D-03
63	-0.207486D-04	-0.211056D-03	-0.712095D-03	-0.431433D-03	-0.413791D-03
64	-0.887966D-04	-0.512431D-03	-0.467684D-03	0.566083D-04	-0.953819D-04
65	-0.939439D-03	0.677605D-04	-0.318630D-03	-0.151867D-02	-0.738186D-03
66	0.155634D-03	-0.145702D-03	-0.325335D-03	-0.408048D-03	-0.689519D-03
67	0.127089D-02	0.738996D-03	0.940209D-03	0.593642D-03	0.953304D-03
68	0.336900D-03	-0.384553D-04	0.116327D-03	-0.222984D-03	-0.299924D-03
69	0.467432D-03	0.533108D-03	0.107709D-02	0.538685D-03	0.762142D-03
70	0.116679D-03	-0.848713D-03	0.118031D-03	0.458809D-03	-0.293370D-04
71	0.154164D+01	0.118537D+01	0.225218D+01	0.351199D+00	0.983770D+00
72	-0.115545D-01	-0.890288D-02	-0.174092D-01	-0.154460D-01	-0.156627D-01
73	-0.313913D-03	-0.114664D-02	-0.420077D-03	0.399509D-03	-0.242876D-02
74	0.620180D-02	0.336525D-02	0.355031D-02	0.805116D-02	0.920146D-02
75	-0.179525D-02	-0.395857D-02	0.263107D-02	0.304905D-02	0.337984D-02
76	0.960586D-04	0.205845D-03	0.166543D-03	0.238300D-03	0.175333D-03
77	0.123887D-03	0.624169D-04	0.171576D-03	0.997740D-04	0.787618D-04
78	0.101510D-03	0.913222D-03	0.282274D-03	0.427633D-03	0.326156D-03
79	0.134025D-03	0.145053D-04	-0.428955D-04	-0.104260D-03	0.221076D-05
80	0.130771D-02	-0.111706D-04	0.186033D-02	0.206598D-02	0.121909D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.328128D+02				
47	-0.130122D+00	0.483020D+00			
48	-0.139575D+00	0.339257D+00	0.542440D+00		
49	-0.877442D-02	0.220445D+00	0.282123D+00	0.594070D+00	
50	-0.120645D+00	0.271817D+00	0.343012D+00	0.231206D+00	0.505283D+00
51	-0.158053D+00	0.309497D+00	0.361901D+00	0.245353D+00	0.319062D+00
52	-0.627963D-01	0.357936D+00	0.418785D+00	0.278727D+00	0.356404D+00
53	-0.188754D+00	0.245561D+00	0.308233D+00	0.226299D+00	0.251356D+00
54	-0.106829D+00	0.180839D+00	0.224828D+00	0.174255D+00	0.201049D+00
55	-0.147162D+00	0.334405D+00	0.391301D+00	0.276875D+00	0.334502D+00
56	-0.899738D-01	0.336177D+00	0.383052D+00	0.247369D+00	0.331847D+00
57	-0.194681D-01	0.263339D+00	0.314422D+00	0.241999D+00	0.272351D+00
58	-0.559240D+01	0.604926D+01	0.718784D+01	0.499666D+01	0.659590D+01
59	-0.433686D-02	-0.245389D-02	-0.229956D-02	-0.369419D-02	-0.249983D-02
60	0.146481D-01	-0.710494D-02	-0.238485D-02	0.162854D-02	-0.303489D-03
61	0.695302D-02	-0.390403D-03	-0.738297D-02	-0.818928D-03	-0.220704D-02
62	-0.118483D-01	0.164706D-02	0.307530D-02	-0.854538D-02	0.256107D-02
63	-0.246439D-01	0.832855D-04	-0.184837D-03	0.110864D-02	-0.620540D-02
64	0.144392D-01	0.833267D-03	0.147217D-02	0.467418D-03	0.729799D-03

65	-0.472972D-02	0.246189D-02	-0.120513D-02	0.594564D-02	-0.169104D-02
66	0.189140D-03	0.644752D-02	0.300465D-02	0.431493D-02	-0.611774D-03
67	0.261374D-01	-0.101328D-02	-0.367279D-04	0.366187D-02	0.304199D-03
68	-0.931996D-02	0.361280D-02	0.646559D-02	0.158513D-02	0.344938D-02
69	0.537547D-01	-0.103155D-02	-0.279158D-02	-0.280843D-03	0.739609D-03
70	-0.175684D-01	0.723332D-03	0.414181D-02	-0.288721D-02	-0.821492D-03
71	-0.242055D+02	-0.268390D+01	-0.518292D+01	-0.455193D+01	-0.761694D+01
72	-0.306573D+00	-0.447237D-01	-0.417890D-01	-0.235088D-01	-0.357211D-01
73	-0.222583D-01	0.303822D-02	0.648422D-02	0.795785D-02	0.623561D-02
74	0.838225D-01	-0.174721D+00	-0.199076D+00	-0.170641D+00	-0.176312D+00
75	-0.108793D+00	-0.288506D-01	-0.380343D-01	-0.180793D-01	-0.258924D-01
76	0.118270D-02	-0.679976D-02	-0.844850D-02	-0.568851D-02	-0.716793D-02
77	0.755591D-04	0.915302D-04	-0.101585D-02	-0.120731D-02	-0.614151D-03
78	0.148159D-02	-0.220633D-02	-0.430597D-02	-0.317872D-03	-0.235795D-02
79	-0.351763D-02	-0.202848D-03	0.195681D-03	-0.158002D-03	0.549781D-03
80	0.247043D-01	0.387140D-02	0.502523D-02	0.108516D-02	0.441602D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.549213D+00				
52	0.377072D+00	0.832853D+00			
53	0.286686D+00	0.318841D+00	0.601616D+00		
54	0.199610D+00	0.233847D+00	0.184350D+00	0.473854D+00	
55	0.383650D+00	0.416071D+00	0.305571D+00	0.227497D+00	0.586471D+00
56	0.364512D+00	0.404888D+00	0.278945D+00	0.201948D+00	0.395136D+00
57	0.318724D+00	0.346205D+00	0.228749D+00	0.175285D+00	0.343772D+00
58	0.619722D+01	0.894153D+01	0.616414D+01	0.465773D+01	0.673859D+01
59	-0.323290D-02	-0.283194D-02	-0.222400D-02	-0.643709D-03	-0.270985D-02
60	-0.163567D-02	0.295860D-03	0.213002D-03	0.702987D-03	-0.960131D-03
61	-0.434654D-03	-0.442528D-02	-0.353597D-02	-0.388626D-02	0.113269D-03
62	0.247641D-02	0.255846D-02	-0.475605D-02	0.134271D-02	0.473251D-03
63	0.641869D-03	-0.113549D-02	-0.571209D-03	-0.141903D-02	-0.259122D-04
64	-0.792040D-02	0.193668D-02	0.134693D-02	0.371716D-02	0.148555D-02
65	0.113643D-02	-0.108468D-01	-0.366700D-02	0.130340D-03	-0.195453D-02
66	0.445127D-02	-0.188294D-02	-0.477444D-03	-0.406321D-02	0.436195D-02
67	-0.616013D-03	-0.289802D-02	-0.231992D-02	-0.177951D-02	0.353677D-02
68	0.473166D-02	0.491300D-02	0.557146D-02	0.139261D-02	-0.307274D-02
69	0.277510D-02	0.165845D-03	0.421235D-03	-0.600677D-03	-0.119461D-02
70	-0.153611D-02	0.280872D-02	0.324185D-02	0.621837D-02	-0.303841D-02
71	-0.282614D+01	0.979110D+00	-0.190453D+01	-0.104761D+02	-0.488888D+00
72	-0.388728D-01	-0.466768D-01	-0.362190D-01	-0.248992D-01	-0.495248D-01
73	0.549079D-02	0.479318D-02	-0.285080D-02	-0.199007D-02	0.594494D-02

74	-0.175427D+00	-0.187543D+00	-0.150514D+00	-0.118595D+00	-0.225929D+00
75	-0.339653D-01	-0.263575D-01	-0.158838D-01	-0.221996D-01	-0.259127D-01
76	-0.784033D-02	-0.858106D-02	-0.654774D-02	-0.465400D-02	-0.828980D-02
77	-0.136446D-02	-0.191672D-02	-0.612973D-03	-0.992015D-03	-0.137340D-02
78	-0.402412D-02	-0.415628D-02	-0.460110D-02	-0.602485D-02	-0.159810D-02
79	-0.335159D-03	0.277911D-03	-0.816709D-03	0.416735D-03	-0.179140D-03
80	0.453285D-02	0.641355D-02	0.553703D-02	0.244948D-02	0.456196D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	56	57	58	59	60
56	0.557264D+00				
57	0.314358D+00	0.722205D+00			
58	0.692948D+01	0.634260D+01	0.808173D+03		
59	-0.178096D-02	-0.243456D-02	-0.975403D-02	0.278469D-02	
60	-0.287776D-02	0.283142D-02	-0.782701D-02	0.661138D-04	0.931865D-02
61	-0.282776D-02	0.132874D-02	-0.152869D+00	-0.323850D-04	0.451604D-03
62	0.447720D-02	-0.483346D-02	0.484974D-01	0.300986D-03	-0.149521D-03
63	0.410353D-04	0.116161D-02	-0.257749D-01	-0.326142D-04	-0.227289D-03
64	0.148779D-02	-0.963296D-03	0.171706D+00	0.258999D-03	-0.879249D-04
65	0.287475D-02	0.385738D-02	-0.630701D-01	0.274801D-03	-0.230201D-03
66	0.639785D-02	0.348866D-02	-0.124462D+00	0.780243D-04	-0.265797D-03
67	0.688413D-02	-0.691137D-02	0.319410D-01	0.227153D-03	-0.221307D-04
68	0.124493D-02	-0.267347D-02	0.141621D+00	0.235136D-03	-0.284833D-03
69	-0.526495D-02	0.327067D-02	0.873632D-01	-0.563500D-04	0.521810D-03
70	0.566933D-03	-0.587250D-02	-0.550058D-01	-0.263016D-03	-0.692174D-03
71	-0.328329D+01	-0.521645D+01	0.128553D+01	0.901529D+00	0.499512D+00
72	-0.561775D-01	0.208576D-01	-0.580958D+00	0.441059D-03	0.732305D-03
73	0.605597D-02	0.236085D-01	-0.830433D-01	-0.356280D-03	-0.622582D-04
74	-0.199144D+00	-0.273712D+00	-0.499020D+01	0.296949D-02	0.315412D-02
75	-0.285646D-01	0.282104D-01	-0.287081D+00	0.833552D-03	0.324742D-02
76	-0.802515D-02	-0.731438D-02	-0.162419D+00	0.696177D-04	-0.264949D-04
77	-0.112058D-02	-0.142503D-01	-0.235173D-01	0.813501D-05	-0.153768D-03
78	-0.313007D-02	-0.720375D-02	0.442151D-01	0.246578D-03	-0.324696D-04
79	0.444319D-03	-0.772372D-03	-0.363551D-01	-0.902193D-05	-0.614714D-04
80	0.467307D-02	0.813402D-02	-0.212032D-01	-0.135632D-04	0.425582D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	0.575574D-02				
62	-0.503479D-03	0.320592D-01			

63	-0.110540D-03	0.226774D-03	0.112853D-01		
64	-0.695226D-03	0.871515D-03	0.316090D-03	0.963444D-02	
65	0.516299D-03	0.358608D-03	0.977743D-03	-0.117922D-02	0.327312D-01
66	0.844055D-03	0.459424D-03	-0.430524D-04	0.391222D-03	0.223195D-02
67	0.204728D-03	-0.144851D-03	-0.200675D-03	-0.402307D-03	0.973948D-03
68	-0.768562D-03	0.136081D-03	0.267917D-04	-0.357398D-03	-0.749632D-03
69	0.576537D-03	0.237271D-03	-0.527329D-03	-0.462011D-03	-0.238177D-03
70	-0.631023D-03	-0.494441D-04	-0.252007D-03	0.656498D-03	-0.838398D-03
71	0.558815D+00	0.780703D+00	0.163305D+00	-0.865925D-01	-0.128233D+01
72	0.675068D-03	0.121706D-02	0.156028D-02	-0.879266D-03	0.223781D-02
73	0.487421D-03	-0.604952D-03	-0.516286D-03	0.236769D-04	0.318783D-02
74	-0.563344D-02	-0.261606D-02	-0.151627D-03	0.126178D-02	-0.984032D-02
75	0.195258D-03	-0.172497D-02	-0.165245D-03	0.963170D-03	-0.292332D-03
76	0.333342D-04	-0.530070D-04	0.463030D-04	-0.362805D-04	-0.909398D-04
77	-0.947323D-05	0.172519D-03	-0.143505D-03	-0.114089D-03	-0.237168D-03
78	-0.144824D-03	-0.377438D-04	0.195436D-03	-0.558014D-04	0.740336D-03
79	-0.115042D-03	0.143780D-03	0.205243D-04	-0.308286D-06	0.165080D-03
80	-0.450998D-03	0.201025D-03	-0.315136D-03	0.250109D-03	-0.414642D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.267348D-01				
67	0.281885D-03	0.243521D-01			
68	-0.643564D-03	0.115467D-03	0.820373D-02		
69	-0.592935D-03	-0.423884D-03	0.459076D-03	0.882963D-02	
70	-0.139247D-03	-0.334445D-03	0.881618D-03	-0.445117D-03	0.156579D-01
71	-0.340197D+01	-0.487676D+00	0.167951D+01	0.694742D+00	0.484629D+00
72	-0.194809D-02	-0.370129D-02	-0.696541D-03	-0.571479D-03	-0.335990D-03
73	0.303166D-03	-0.105322D-02	-0.326825D-03	0.111886D-02	0.498853D-02
74	-0.445543D-02	0.679457D-02	0.155688D-01	-0.870050D-03	0.122970D-01
75	-0.346296D-02	-0.277590D-02	-0.114125D-02	-0.347742D-03	-0.167426D-02
76	-0.626283D-04	-0.569869D-04	-0.208117D-04	-0.240249D-04	0.727702D-04
77	0.920598D-04	0.154924D-03	0.225832D-04	-0.102680D-03	-0.101158D-03
78	-0.404064D-03	0.280812D-04	-0.288949D-03	-0.173737D-03	-0.821030D-02
79	-0.112992D-03	-0.713935D-04	0.751565D-04	-0.111303D-04	0.765598D-04
80	-0.340309D-04	-0.157447D-03	0.500774D-03	0.111812D-03	0.182831D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.894690D+05				

72	-0.115109D+01	0.154292D+00			
73	0.394789D+01	0.947185D-03	0.571336D-01		
74	0.931237D+00	-0.552697D-01	-0.318440D-01	0.167805D+01	
75	0.258154D+01	0.354851D-01	0.634172D-02	-0.650766D-01	0.324165D+00
76	0.200377D+00	0.835139D-03	-0.434948D-05	0.443698D-02	0.742276D-03
77	0.727092D-01	-0.230376D-02	-0.646850D-03	0.431141D-02	-0.204433D-02
78	-0.121517D+01	-0.202170D-03	-0.565889D-02	-0.658454D-02	0.810414D-02
79	-0.112135D+00	-0.868454D-03	0.461893D-04	0.101432D-02	0.268346D-03
80	-0.470590D+00	0.189200D-02	0.652875D-03	0.361183D-01	0.297597D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	0.347628D-03				
77	0.436202D-04	0.930826D-03			
78	0.101729D-03	0.287813D-03	0.117537D-01		
79	0.123129D-04	0.267944D-04	0.157604D-03	0.713611D-03	
80	-0.126126D-03	-0.214877D-03	-0.122607D-02	-0.692315D-04	0.922840D-02

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	1.000				
2	0.246	1.000			
3	-0.092	-0.196	1.000		
4	0.071	0.150	-0.118	1.000	
5	0.078	0.126	-0.148	0.238	1.000
6	-0.084	-0.128	0.123	-0.196	-0.250
7	-0.013	-0.014	-0.013	0.011	0.044
8	-0.023	0.002	-0.047	0.014	-0.038
9	0.011	0.008	0.002	-0.018	0.023
10	0.012	0.059	-0.012	0.001	0.025
11	-0.031	-0.037	0.072	0.004	-0.037
12	-0.008	0.011	0.087	0.004	-0.043
13	0.033	-0.038	-0.045	0.043	0.005
14	0.028	0.025	-0.005	0.024	-0.054
15	0.048	0.038	-0.017	0.024	-0.027
16	-0.022	0.007	0.013	0.001	-0.017
17	0.021	-0.001	-0.004	0.002	-0.018
18	0.041	-0.002	-0.014	0.024	0.031
19	-0.006	0.022	-0.013	0.033	-0.005
20	-0.010	0.017	-0.009	0.048	0.006

21	0.001	-0.005	0.011	-0.011	0.001
22	0.027	0.052	-0.034	0.048	-0.008
23	0.010	0.006	-0.003	0.029	0.019
24	0.007	0.006	0.010	-0.002	-0.002
25	-0.040	0.029	-0.025	-0.021	-0.013
26	0.024	0.020	-0.024	-0.003	-0.014
27	0.007	-0.008	-0.023	-0.012	0.015
28	0.012	-0.018	0.002	-0.037	-0.024
29	-0.012	-0.046	0.007	-0.008	-0.011
30	0.027	0.015	-0.019	0.015	0.003
31	-0.016	-0.030	0.057	-0.018	-0.041
32	-0.009	0.018	0.013	0.002	-0.073
33	-0.037	-0.007	-0.009	0.007	0.016
34	-0.010	-0.015	-0.017	0.017	-0.006
35	-0.001	0.017	-0.002	-0.032	0.007
36	0.013	0.006	0.013	-0.023	0.006
37	0.037	-0.003	0.015	-0.028	-0.031
38	0.026	0.042	-0.022	-0.004	0.008
39	0.032	0.024	-0.014	-0.020	0.019
40	0.018	0.016	-0.007	0.002	0.034
41	0.025	0.024	-0.040	-0.009	0.008
42	0.004	0.019	0.019	-0.025	-0.028
43	0.017	0.052	-0.019	-0.022	-0.008
44	0.038	0.027	0.008	-0.012	0.018
45	0.004	0.019	-0.018	-0.009	-0.007
46	0.041	0.004	0.014	-0.011	0.034
47	-0.004	0.052	-0.032	0.022	0.027
48	-0.004	0.038	-0.056	0.007	-0.013
49	-0.041	0.031	-0.037	0.027	0.019
50	0.016	0.044	-0.024	0.039	-0.016
51	0.008	0.053	-0.033	0.028	0.013
52	-0.015	0.043	-0.031	0.008	-0.007
53	-0.002	0.047	-0.053	0.023	0.022
54	-0.021	0.025	-0.015	0.026	0.005
55	-0.017	0.058	-0.046	0.013	0.013
56	-0.001	0.050	-0.057	0.030	-0.008
57	-0.001	0.042	-0.027	0.021	0.023
58	-0.014	-0.006	-0.012	0.060	-0.032
59	0.037	0.007	-0.011	0.034	0.002
60	-0.017	0.048	-0.011	-0.030	0.027
61	0.058	-0.040	-0.026	0.018	0.055
62	0.022	0.012	0.007	-0.024	0.036
63	0.005	0.024	0.012	-0.026	0.000
64	-0.036	-0.022	-0.013	-0.008	-0.004



65	0.010	-0.015	-0.002	0.027	0.002
66	0.000	0.002	0.036	-0.017	-0.043
67	-0.014	-0.033	0.010	-0.010	-0.009
68	-0.031	0.033	-0.019	-0.019	0.010
69	0.067	0.065	-0.001	0.009	0.026
70	0.034	-0.019	0.021	0.019	0.023
71	0.013	0.048	-0.032	0.022	0.065
72	-0.022	-0.021	0.018	-0.012	-0.034
73	-0.003	0.009	0.050	-0.012	-0.018
74	-0.022	-0.030	-0.009	-0.009	0.000
75	-0.010	0.024	-0.040	-0.041	0.008
76	-0.016	-0.042	0.043	-0.047	-0.002
77	-0.016	0.014	0.010	-0.010	-0.009
78	-0.030	0.022	0.010	-0.030	-0.005
79	0.001	-0.005	-0.015	-0.061	-0.022
80	-0.014	0.034	-0.033	-0.056	-0.016

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	1.000				
7	-0.004	1.000			
8	-0.002	-0.104	1.000		
9	0.002	0.015	0.080	1.000	
10	-0.047	0.049	-0.056	0.096	1.000
11	0.039	-0.099	-0.030	0.104	-0.129
12	-0.003	-0.012	0.077	-0.092	0.122
13	0.000	-0.016	-0.020	-0.032	0.011
14	-0.017	-0.006	0.015	-0.057	0.033
15	-0.041	-0.014	0.012	-0.016	0.003
16	0.027	0.009	-0.045	0.020	0.008
17	-0.023	0.031	0.008	-0.015	0.006
18	0.021	-0.020	0.011	-0.051	-0.023
19	-0.021	0.010	0.036	-0.014	0.012
20	-0.022	0.002	0.031	-0.016	0.015
21	-0.012	0.016	-0.003	0.024	0.034
22	-0.018	0.010	0.062	-0.019	0.004
23	-0.020	0.025	0.010	-0.007	0.017
24	-0.062	-0.009	0.007	-0.017	-0.020
25	0.015	0.009	0.012	0.021	0.025
26	-0.030	-0.015	0.030	-0.007	-0.016
27	-0.004	-0.002	-0.013	0.025	-0.028
28	0.003	-0.012	-0.011	0.051	0.024

29	0.002	0.005	0.006	0.000	0.002
30	0.031	0.004	-0.002	-0.025	-0.035
31	0.049	-0.006	-0.003	0.035	-0.017
32	0.034	-0.029	0.015	0.024	0.040
33	0.003	0.022	-0.002	-0.019	-0.033
34	0.038	0.056	-0.022	-0.019	0.010
35	0.021	-0.020	-0.002	0.021	-0.025
36	0.032	-0.007	0.007	0.042	-0.074
37	0.022	-0.007	-0.002	0.028	-0.057
38	0.033	-0.035	0.008	0.024	-0.018
39	0.029	-0.023	0.014	0.059	-0.027
40	0.034	0.014	0.023	0.059	-0.046
41	0.011	-0.049	-0.012	0.016	-0.042
42	0.040	0.010	0.006	0.056	0.019
43	0.049	-0.045	-0.010	0.049	-0.034
44	0.008	-0.031	0.008	0.036	-0.042
45	0.021	-0.033	0.028	0.016	-0.067
46	-0.016	0.012	-0.005	0.018	-0.024
47	-0.058	0.034	-0.024	-0.001	0.026
48	-0.063	0.002	-0.032	-0.036	0.043
49	-0.040	-0.010	-0.005	0.016	0.013
50	-0.058	0.009	-0.010	-0.034	0.038
51	-0.065	-0.006	-0.015	-0.059	0.053
52	-0.032	0.018	-0.032	-0.037	0.021
53	-0.057	0.030	-0.011	-0.040	0.035
54	-0.010	0.030	0.001	-0.021	-0.031
55	-0.091	0.017	-0.010	-0.028	0.031
56	-0.067	0.034	-0.032	-0.027	0.021
57	-0.060	0.004	-0.025	-0.027	0.040
58	-0.006	0.015	0.020	-0.013	0.014
59	0.009	-0.058	-0.029	-0.026	-0.021
60	0.000	-0.025	0.013	-0.041	-0.008
61	-0.066	-0.021	-0.032	-0.029	0.015
62	0.011	0.002	0.015	-0.017	-0.006
63	0.003	0.006	-0.012	0.021	0.018
64	-0.011	-0.006	0.020	0.010	-0.038
65	-0.017	0.026	-0.047	0.012	0.011
66	0.024	0.017	0.021	-0.001	-0.016
67	0.004	0.019	-0.023	0.002	0.032
68	-0.023	0.012	0.008	-0.030	-0.014
69	-0.043	-0.022	-0.019	-0.009	-0.001
70	0.012	0.024	0.052	-0.006	-0.023
71	-0.004	-0.005	-0.035	0.017	-0.013
72	0.034	0.000	0.018	-0.076	-0.033

73	0.033	0.030	0.001	0.037	0.041
74	0.037	0.006	-0.024	0.007	-0.008
75	0.053	0.028	-0.001	-0.059	-0.002
76	0.071	-0.017	0.028	0.074	-0.030
77	-0.009	0.004	0.011	0.012	-0.011
78	0.029	-0.002	-0.065	0.001	0.014
79	0.031	-0.005	0.095	0.002	0.004
80	0.030	-0.030	-0.099	-0.044	-0.055

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.214	1.000			
13	0.024	0.007	1.000		
14	-0.002	0.024	0.330	1.000	
15	0.018	0.017	0.041	0.258	1.000
16	-0.026	-0.023	-0.157	-0.168	-0.032
17	-0.073	-0.026	-0.013	-0.109	-0.206
18	0.007	-0.003	0.021	0.009	0.027
19	-0.012	-0.006	0.058	0.151	0.025
20	0.009	0.047	0.017	0.052	0.215
21	-0.056	-0.026	-0.002	-0.017	-0.063
22	-0.013	0.009	-0.057	-0.007	0.025
23	0.033	-0.011	0.156	0.156	0.042
24	0.035	0.012	0.041	0.171	0.173
25	-0.027	0.044	-0.006	0.001	0.014
26	0.012	0.005	-0.001	-0.015	0.022
27	0.029	-0.044	0.025	0.030	0.045
28	0.002	-0.020	-0.072	-0.131	-0.020
29	-0.019	-0.025	0.040	-0.093	-0.188
30	-0.028	-0.015	0.006	-0.018	0.008
31	-0.005	-0.033	0.008	0.010	-0.041
32	-0.017	0.023	-0.006	-0.020	-0.018
33	0.025	0.016	0.014	-0.020	0.024
34	0.038	0.052	-0.005	-0.024	-0.024
35	0.018	0.015	-0.008	0.025	0.007
36	0.033	0.000	-0.033	-0.001	0.021
37	0.034	0.019	-0.002	-0.014	-0.010
38	0.043	0.025	-0.035	0.001	0.010
39	0.039	0.008	-0.041	-0.016	0.031
40	0.016	-0.033	-0.036	0.029	0.017
41	0.042	0.047	-0.010	-0.028	-0.010

42	0.051	0.005	-0.029	0.002	0.026
43	0.038	0.004	-0.048	-0.008	0.013
44	0.012	-0.001	-0.018	-0.027	0.024
45	0.021	0.031	-0.044	0.002	0.006
46	0.009	0.009	-0.056	-0.043	-0.024
47	0.006	-0.026	-0.007	-0.021	-0.063
48	-0.001	-0.022	0.019	-0.008	-0.039
49	0.012	-0.046	-0.015	-0.044	-0.021
50	-0.058	-0.048	0.010	0.007	-0.018
51	-0.011	-0.027	0.026	0.005	-0.008
52	-0.021	-0.058	-0.008	0.005	-0.003
53	-0.030	-0.044	0.007	0.009	-0.028
54	-0.016	-0.044	-0.001	0.001	-0.004
55	-0.020	-0.070	-0.014	-0.018	-0.022
56	-0.010	-0.036	0.003	-0.011	-0.034
57	-0.018	-0.037	-0.048	-0.041	0.029
58	-0.003	-0.018	0.019	-0.056	-0.065
59	0.060	0.025	0.013	0.056	0.029
60	-0.041	0.002	0.001	-0.021	-0.029
61	-0.040	-0.005	-0.009	-0.005	-0.004
62	-0.010	0.011	-0.005	-0.001	-0.002
63	0.045	0.010	0.005	0.015	0.014
64	0.005	-0.022	-0.031	-0.051	0.008
65	0.037	-0.023	0.032	-0.021	-0.016
66	0.023	-0.027	0.001	-0.027	0.013
67	-0.021	-0.007	0.013	0.006	0.038
68	0.033	0.013	0.079	0.074	-0.015
69	-0.003	-0.005	0.024	0.003	0.013
70	-0.048	0.012	0.018	0.018	0.018
71	0.066	0.012	0.028	0.017	-0.027
72	-0.058	-0.017	-0.021	-0.009	0.008
73	0.069	0.041	0.014	-0.010	-0.011
74	0.042	-0.005	-0.004	-0.003	-0.002
75	-0.012	0.000	-0.001	-0.005	-0.024
76	0.058	0.033	0.006	-0.001	0.021
77	0.010	0.045	0.028	0.017	-0.044
78	0.053	-0.023	0.010	-0.034	-0.037
79	0.039	0.015	-0.018	0.029	0.033
80	0.030	0.023	-0.006	-0.025	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

16

17

18

19

20

16	1.000				
17	0.221	1.000			
18	-0.166	-0.213	1.000		
19	-0.181	-0.037	-0.013	1.000	
20	-0.065	-0.185	0.041	0.222	1.000
21	0.110	0.195	-0.239	-0.107	-0.164
22	-0.008	-0.051	0.031	0.082	0.232
23	-0.184	-0.051	0.010	0.246	0.049
24	-0.071	-0.186	0.030	0.059	0.255
25	0.157	0.169	-0.245	0.007	-0.018
26	-0.027	-0.055	0.052	0.129	0.115
27	-0.008	-0.039	0.028	0.019	0.000
28	0.144	0.063	-0.007	-0.243	-0.036
29	0.063	0.155	-0.023	-0.059	-0.188
30	-0.129	-0.136	0.187	0.043	0.024
31	0.031	0.025	-0.073	-0.047	-0.134
32	0.051	0.068	-0.079	-0.044	-0.044
33	-0.028	-0.039	0.061	0.017	0.028
34	-0.012	-0.016	-0.028	0.030	-0.001
35	-0.009	-0.024	-0.036	0.001	-0.026
36	0.004	-0.009	-0.027	0.009	-0.023
37	0.010	-0.012	0.003	-0.040	-0.044
38	-0.023	0.018	-0.024	0.021	-0.006
39	0.012	0.003	-0.007	-0.015	-0.024
40	0.020	-0.020	0.002	0.008	0.009
41	0.012	0.018	-0.026	-0.016	-0.024
42	-0.037	-0.038	-0.028	0.003	0.021
43	0.010	-0.012	-0.018	-0.010	-0.035
44	-0.004	-0.019	-0.012	0.017	0.006
45	0.016	-0.022	-0.021	0.036	-0.022
46	-0.004	0.007	0.001	0.012	0.003
47	0.031	0.016	0.016	0.003	0.019
48	0.035	0.005	0.025	-0.012	0.001
49	0.000	-0.014	0.026	0.009	-0.015
50	0.028	-0.015	0.036	0.000	-0.018
51	0.012	-0.009	0.023	0.006	0.024
52	0.026	-0.015	0.008	-0.006	0.006
53	0.002	0.007	0.000	-0.025	0.002
54	-0.005	0.017	0.031	0.015	-0.009
55	0.015	-0.005	0.002	0.012	0.004
56	0.010	0.000	0.032	-0.017	0.016
57	0.004	-0.004	0.046	0.025	0.025
58	0.017	0.015	-0.011	-0.006	0.019
59	-0.043	0.014	0.042	0.017	0.004

60	-0.013	0.018	-0.009	-0.001	-0.031
61	-0.014	-0.010	-0.003	0.005	0.007
62	0.010	-0.012	0.007	0.022	-0.005
63	-0.013	-0.018	-0.026	-0.031	-0.012
64	0.050	0.005	0.051	0.006	0.025
65	-0.003	0.034	0.006	0.007	-0.029
66	-0.031	-0.034	0.041	-0.072	-0.036
67	-0.004	0.017	-0.024	-0.049	0.004
68	-0.049	-0.026	-0.001	0.034	-0.021
69	-0.021	-0.034	0.037	0.049	0.014
70	-0.006	0.004	0.010	-0.023	-0.007
71	-0.004	0.001	-0.032	-0.005	0.003
72	-0.011	0.043	0.034	0.007	-0.034
73	0.017	0.017	-0.016	0.024	0.004
74	0.012	-0.024	-0.026	0.044	0.054
75	0.001	0.026	0.009	0.032	-0.010
76	-0.007	-0.010	0.000	-0.020	-0.019
77	0.018	-0.025	-0.050	-0.029	-0.005
78	-0.016	-0.028	-0.024	-0.015	-0.005
79	0.009	-0.055	0.009	-0.007	0.007
80	0.009	0.033	0.028	0.031	0.022

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.230	1.000			
23	-0.018	0.032	1.000		
24	-0.021	0.078	0.244	1.000	
25	0.237	-0.035	-0.121	-0.180	1.000
26	-0.164	0.337	0.035	0.189	-0.194
27	-0.050	0.030	0.170	0.202	-0.232
28	0.030	-0.029	-0.230	-0.102	0.102
29	0.054	-0.055	-0.030	-0.313	0.021
30	-0.210	0.043	0.007	0.065	-0.277
31	0.185	-0.291	-0.012	-0.089	0.052
32	0.097	-0.066	-0.067	-0.165	0.198
33	-0.047	0.057	0.016	0.016	-0.007
34	0.034	0.000	0.059	0.015	-0.001
35	0.013	-0.022	-0.035	0.003	0.020
36	0.018	-0.028	0.005	0.029	-0.021
37	-0.033	0.011	-0.002	0.002	-0.019
38	0.027	0.007	-0.006	0.007	-0.012

39	0.013	-0.004	-0.031	0.012	-0.024
40	-0.029	-0.021	-0.010	0.040	-0.033
41	-0.003	0.024	-0.011	0.016	-0.035
42	-0.029	-0.008	0.021	0.011	-0.014
43	0.016	-0.006	-0.008	0.005	-0.031
44	0.012	-0.014	-0.015	0.019	0.010
45	-0.012	-0.037	0.010	0.045	-0.037
46	-0.015	0.042	-0.012	0.026	-0.041
47	-0.015	0.013	-0.026	-0.032	-0.013
48	-0.014	-0.003	-0.015	-0.002	-0.039
49	-0.061	0.028	0.007	-0.009	-0.024
50	0.003	0.002	-0.030	0.006	-0.029
51	-0.055	0.035	-0.014	-0.007	-0.068
52	-0.045	-0.014	-0.004	0.012	-0.015
53	-0.013	0.018	0.012	0.044	-0.062
54	-0.006	-0.022	-0.017	0.004	-0.012
55	-0.005	0.027	-0.009	0.005	-0.019
56	-0.015	0.033	-0.038	0.011	-0.011
57	-0.009	0.009	-0.008	0.011	-0.037
58	0.001	0.017	-0.011	-0.007	0.002
59	0.036	0.004	-0.012	0.012	0.031
60	-0.028	0.011	0.019	-0.012	-0.060
61	-0.008	0.028	0.021	0.037	-0.029
62	-0.008	0.003	-0.020	-0.032	0.015
63	-0.020	-0.025	-0.005	0.046	-0.030
64	0.005	-0.022	-0.032	-0.030	-0.028
65	-0.010	-0.024	-0.050	-0.042	0.001
66	-0.015	-0.028	-0.013	-0.019	-0.040
67	0.024	-0.021	-0.007	0.027	-0.016
68	-0.033	-0.001	0.029	-0.006	-0.007
69	0.001	0.016	0.039	0.002	-0.030
70	-0.012	0.047	-0.003	0.000	-0.026
71	0.023	0.046	0.007	0.004	-0.021
72	-0.028	0.018	0.011	-0.059	-0.005
73	-0.007	0.018	-0.027	-0.009	-0.017
74	0.004	-0.002	0.015	-0.026	0.042
75	0.006	-0.052	0.013	-0.009	-0.013
76	0.034	0.010	0.027	-0.011	0.053
77	-0.011	0.008	-0.014	-0.034	0.020
78	0.018	-0.071	0.010	-0.019	0.032
79	0.008	-0.006	-0.040	0.063	-0.007
80	-0.012	-0.029	0.007	-0.010	0.002

## ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.305	1.000			
28	-0.037	-0.004	1.000		
29	-0.081	-0.012	0.226	1.000	
30	0.073	0.013	-0.084	-0.155	1.000
31	-0.281	-0.062	0.048	0.189	-0.193
32	-0.261	-0.315	0.140	0.095	-0.213
33	0.039	0.006	-0.075	-0.183	0.234
34	0.021	0.018	-0.033	-0.033	-0.008
35	0.003	0.018	0.019	0.013	-0.011
36	0.018	0.039	0.019	0.011	0.004
37	0.012	-0.011	0.016	0.036	0.026
38	0.007	0.003	0.030	0.041	-0.021
39	0.021	0.051	0.036	0.044	-0.023
40	0.017	0.049	0.014	-0.005	0.021
41	0.018	0.007	0.044	0.013	-0.020
42	-0.015	0.030	0.039	0.036	-0.005
43	0.003	0.022	0.024	0.010	0.024
44	0.007	0.044	0.010	0.012	-0.023
45	0.005	0.023	0.021	0.022	0.002
46	0.065	0.015	0.014	0.025	-0.012
47	0.022	-0.023	0.017	-0.009	-0.011
48	-0.009	-0.010	0.020	0.025	-0.021
49	0.018	0.000	-0.016	0.000	-0.055
50	0.033	-0.006	0.009	0.023	-0.003
51	0.022	-0.007	0.011	0.014	0.003
52	0.004	-0.022	0.019	-0.005	-0.018
53	-0.008	0.026	-0.006	-0.004	-0.023
54	0.009	-0.026	0.005	-0.044	-0.001
55	0.017	-0.008	-0.001	-0.003	-0.013
56	0.018	-0.005	0.004	-0.034	-0.035
57	0.013	-0.013	0.004	-0.014	-0.013
58	0.014	-0.004	-0.016	0.012	0.008
59	0.009	-0.032	-0.021	-0.053	0.018
60	0.021	0.059	0.033	0.038	-0.026
61	-0.026	-0.002	-0.039	0.002	0.020
62	0.029	-0.035	0.017	0.039	0.017
63	-0.022	-0.041	-0.005	-0.010	0.057
64	0.020	-0.010	0.007	0.038	-0.013
65	-0.016	-0.002	0.001	-0.003	0.006
66	0.030	0.050	0.014	0.046	0.014



67	-0.006	0.013	-0.028	-0.042	0.006
68	-0.003	-0.004	-0.037	0.002	0.022
69	0.020	0.039	-0.002	-0.013	-0.001
70	0.016	0.004	0.034	-0.001	-0.016
71	-0.006	0.007	0.023	0.024	0.009
72	0.011	-0.010	-0.009	0.042	0.014
73	0.025	0.006	-0.013	-0.010	-0.001
74	-0.008	-0.042	0.037	0.020	-0.025
75	-0.026	0.026	-0.048	-0.013	0.015
76	-0.022	0.018	0.029	-0.002	0.017
77	0.007	-0.017	-0.004	0.007	0.016
78	-0.032	-0.017	-0.015	0.008	0.000
79	0.040	-0.004	0.011	-0.038	-0.012
80	0.010	0.009	0.028	-0.012	-0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.288	1.000			
33	-0.313	-0.328	1.000		
34	0.030	-0.032	0.030	1.000	
35	0.023	-0.035	-0.007	0.350	1.000
36	0.008	-0.035	-0.017	0.363	0.624
37	-0.023	0.007	0.012	0.277	0.421
38	0.011	-0.036	-0.017	0.342	0.558
39	0.023	-0.063	-0.005	0.360	0.596
40	0.002	-0.033	0.005	0.321	0.533
41	-0.025	-0.021	-0.004	0.265	0.456
42	-0.009	-0.031	0.028	0.216	0.398
43	0.000	-0.058	0.025	0.362	0.623
44	-0.007	-0.010	-0.009	0.330	0.568
45	0.023	-0.064	0.006	0.337	0.559
46	-0.016	-0.041	0.005	0.176	0.310
47	-0.064	-0.002	0.054	-0.096	-0.105
48	-0.064	0.001	0.003	-0.100	-0.110
49	-0.082	0.017	-0.001	-0.053	-0.075
50	-0.072	-0.030	0.030	-0.097	-0.073
51	-0.071	-0.009	-0.005	-0.074	-0.081
52	-0.039	0.047	-0.008	-0.080	-0.077
53	-0.034	0.010	-0.029	-0.063	-0.092
54	0.003	-0.001	0.007	-0.021	-0.024
55	-0.067	-0.026	0.021	-0.087	-0.109

56	-0.074	-0.024	0.034	-0.090	-0.073
57	-0.059	0.022	-0.016	-0.088	-0.077
58	-0.026	0.024	-0.019	-0.063	-0.089
59	0.010	0.030	0.037	-0.026	0.017
60	-0.011	-0.006	0.002	-0.006	0.019
61	0.014	-0.027	0.020	0.014	0.012
62	-0.018	0.007	0.043	-0.038	-0.027
63	-0.009	0.037	-0.009	-0.010	-0.030
64	-0.008	-0.007	-0.020	-0.015	-0.038
65	0.046	-0.008	-0.029	-0.009	0.004
66	0.005	-0.021	0.027	0.013	0.025
67	-0.015	-0.028	0.015	0.039	0.046
68	-0.003	0.032	0.007	-0.046	-0.009
69	0.003	0.009	-0.025	0.067	0.037
70	-0.030	0.010	-0.016	-0.001	0.016
71	-0.043	0.029	-0.022	0.001	0.019
72	0.029	0.025	-0.029	-0.189	-0.272
73	-0.018	0.013	-0.016	-0.032	-0.012
74	0.029	0.017	0.026	0.060	0.036
75	-0.007	-0.004	-0.001	0.032	0.046
76	0.040	-0.004	-0.005	0.069	0.076
77	-0.005	-0.065	0.037	0.050	0.030
78	0.045	-0.028	0.013	0.013	0.023
79	-0.034	0.003	0.033	0.007	-0.024
80	-0.016	-0.010	0.006	0.071	0.135

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.468	1.000			
38	0.654	0.450	1.000		
39	0.672	0.406	0.613	1.000	
40	0.598	0.406	0.560	0.594	1.000
41	0.521	0.363	0.465	0.478	0.455
42	0.449	0.269	0.387	0.417	0.384
43	0.694	0.456	0.650	0.664	0.617
44	0.664	0.446	0.596	0.622	0.562
45	0.638	0.382	0.601	0.605	0.570
46	0.334	0.215	0.307	0.320	0.298
47	-0.115	-0.062	-0.124	-0.112	-0.076
48	-0.153	-0.092	-0.127	-0.151	-0.122
49	-0.089	-0.111	-0.095	-0.082	-0.067

50	-0.098	-0.051	-0.122	-0.100	-0.077
51	-0.122	-0.071	-0.116	-0.119	-0.083
52	-0.103	-0.068	-0.115	-0.106	-0.105
53	-0.107	-0.062	-0.092	-0.098	-0.064
54	-0.055	-0.025	-0.037	-0.065	-0.023
55	-0.146	-0.085	-0.140	-0.150	-0.124
56	-0.099	-0.052	-0.087	-0.117	-0.082
57	-0.102	-0.073	-0.105	-0.105	-0.085
58	-0.087	-0.056	-0.121	-0.129	-0.094
59	-0.017	0.032	0.050	0.043	0.012
60	0.011	0.029	-0.007	0.038	0.026
61	-0.006	-0.023	-0.029	-0.003	-0.006
62	-0.007	-0.022	-0.023	-0.022	-0.043
63	-0.025	0.012	-0.032	-0.003	-0.022
64	0.000	-0.010	0.007	0.002	-0.012
65	-0.020	-0.015	-0.044	-0.055	-0.033
66	-0.026	-0.018	-0.018	-0.008	0.038
67	0.045	0.032	0.046	0.036	0.036
68	0.001	0.007	-0.012	-0.038	-0.011
69	0.081	0.021	0.070	0.071	0.054
70	0.007	0.022	0.019	-0.020	0.016
71	0.008	0.020	0.019	0.024	0.040
72	-0.291	-0.174	-0.280	-0.278	-0.260
73	-0.014	0.025	-0.020	-0.024	-0.005
74	0.049	0.026	0.040	0.039	0.038
75	0.027	0.027	0.040	0.040	0.020
76	0.066	0.053	0.063	0.073	0.037
77	0.018	-0.007	0.029	0.024	0.005
78	0.025	-0.010	0.009	0.045	0.014
79	-0.010	0.002	-0.017	-0.051	-0.016
80	0.144	0.122	0.140	0.133	0.113

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	1.000				
42	0.314	1.000			
43	0.516	0.440	1.000		
44	0.474	0.410	0.646	1.000	
45	0.472	0.397	0.653	0.573	1.000
46	0.258	0.188	0.334	0.308	0.321
47	-0.042	-0.076	-0.101	-0.134	-0.095
48	-0.065	-0.111	-0.139	-0.150	-0.128

49	-0.030	-0.052	-0.082	-0.124	-0.100
50	-0.065	-0.078	-0.096	-0.131	-0.101
51	-0.064	-0.090	-0.099	-0.145	-0.100
52	-0.056	-0.076	-0.100	-0.116	-0.084
53	-0.075	-0.112	-0.085	-0.121	-0.077
54	-0.038	-0.080	-0.047	-0.044	-0.043
55	-0.081	-0.098	-0.145	-0.159	-0.116
56	-0.017	-0.085	-0.097	-0.140	-0.088
57	-0.047	-0.088	-0.102	-0.120	-0.122
58	-0.062	-0.077	-0.063	-0.109	-0.054
59	0.013	-0.005	0.019	0.007	0.017
60	0.021	0.028	0.046	0.011	0.017
61	0.026	0.015	0.013	-0.024	-0.003
62	-0.010	-0.034	-0.054	0.005	0.006
63	-0.001	-0.015	-0.046	-0.028	-0.028
64	-0.006	-0.039	-0.032	0.004	-0.007
65	-0.034	0.003	-0.012	-0.059	-0.029
66	0.006	-0.007	-0.014	-0.017	-0.030
67	0.054	0.035	0.041	0.027	0.044
68	0.025	-0.003	0.009	-0.017	-0.024
69	0.033	0.042	0.078	0.040	0.058
70	0.006	-0.051	0.006	0.026	-0.002
71	0.034	0.030	0.051	0.008	0.024
72	-0.195	-0.169	-0.301	-0.274	-0.287
73	-0.009	-0.036	-0.012	0.012	-0.073
74	0.032	0.019	0.019	0.043	0.051
75	-0.021	-0.052	0.031	0.037	0.043
76	0.034	0.082	0.061	0.089	0.068
77	0.027	0.015	0.038	0.023	0.019
78	0.006	0.063	0.018	0.028	0.022
79	0.033	0.004	-0.011	-0.027	0.001
80	0.090	-0.001	0.132	0.150	0.091

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.033	1.000			
48	-0.033	0.663	1.000		
49	-0.002	0.412	0.497	1.000	
50	-0.030	0.550	0.655	0.422	1.000
51	-0.037	0.601	0.663	0.430	0.606
52	-0.012	0.564	0.623	0.396	0.549

53	-0.042	0.456	0.540	0.379	0.456
54	-0.027	0.378	0.443	0.328	0.411
55	-0.034	0.628	0.694	0.469	0.614
56	-0.021	0.648	0.697	0.430	0.625
57	-0.004	0.446	0.502	0.369	0.451
58	-0.034	0.306	0.343	0.228	0.326
59	-0.014	-0.067	-0.059	-0.091	-0.067
60	0.026	-0.106	-0.034	0.022	-0.004
61	0.016	-0.007	-0.132	-0.014	-0.041
62	-0.012	0.013	0.023	-0.062	0.020
63	-0.040	0.001	-0.002	0.014	-0.082
64	0.026	0.012	0.020	0.006	0.010
65	-0.005	0.020	-0.009	0.043	-0.013
66	0.000	0.057	0.025	0.034	-0.005
67	0.029	-0.009	0.000	0.030	0.003
68	-0.018	0.057	0.097	0.023	0.054
69	0.100	-0.016	-0.040	-0.004	0.011
70	-0.025	0.008	0.045	-0.030	-0.009
71	-0.014	-0.013	-0.024	-0.020	-0.036
72	-0.136	-0.164	-0.144	-0.078	-0.128
73	-0.016	0.018	0.037	0.043	0.037
74	0.011	-0.194	-0.209	-0.171	-0.191
75	-0.033	-0.073	-0.091	-0.041	-0.064
76	0.011	-0.525	-0.615	-0.396	-0.541
77	0.000	0.004	-0.045	-0.051	-0.028
78	0.002	-0.029	-0.054	-0.004	-0.031
79	-0.023	-0.011	0.010	-0.008	0.029
80	0.045	0.058	0.071	0.015	0.065

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.558	1.000			
53	0.499	0.450	1.000		
54	0.391	0.372	0.345	1.000	
55	0.676	0.595	0.514	0.432	1.000
56	0.659	0.594	0.482	0.393	0.691
57	0.506	0.446	0.347	0.300	0.528
58	0.294	0.345	0.280	0.238	0.310
59	-0.083	-0.059	-0.054	-0.018	-0.067
60	-0.023	0.003	0.003	0.011	-0.013
61	-0.008	-0.064	-0.060	-0.074	0.002

62	0.019	0.016	-0.034	0.011	0.003
63	0.008	-0.012	-0.007	-0.019	0.000
64	-0.109	0.022	0.018	0.055	0.020
65	0.008	-0.066	-0.026	0.001	-0.014
66	0.037	-0.013	-0.004	-0.036	0.035
67	-0.005	-0.020	-0.019	-0.017	0.030
68	0.070	0.059	0.079	0.022	-0.044
69	0.040	0.002	0.006	-0.009	-0.017
70	-0.017	0.025	0.033	0.072	-0.032
71	-0.013	0.004	-0.008	-0.051	-0.002
72	-0.134	-0.130	-0.119	-0.092	-0.165
73	0.031	0.022	-0.015	-0.012	0.032
74	-0.183	-0.159	-0.150	-0.133	-0.228
75	-0.080	-0.051	-0.036	-0.057	-0.059
76	-0.567	-0.504	-0.453	-0.363	-0.581
77	-0.060	-0.069	-0.026	-0.047	-0.059
78	-0.050	-0.042	-0.055	-0.081	-0.019
79	-0.017	0.011	-0.039	0.023	-0.009
80	0.064	0.073	0.074	0.037	0.062

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.496	1.000			
58	0.327	0.263	1.000		
59	-0.045	-0.054	-0.007	1.000	
60	-0.040	0.035	-0.003	0.013	1.000
61	-0.050	0.021	-0.071	-0.008	0.062
62	0.033	-0.032	0.010	0.032	-0.009
63	0.001	0.013	-0.009	-0.006	-0.022
64	0.020	-0.012	0.062	0.050	-0.009
65	0.021	0.025	-0.012	0.029	-0.013
66	0.052	0.025	-0.027	0.009	-0.017
67	0.059	-0.052	0.007	0.028	-0.001
68	0.018	-0.035	0.055	0.049	-0.033
69	-0.075	0.041	0.033	-0.011	0.058
70	0.006	-0.055	-0.015	-0.040	-0.057
71	-0.015	-0.021	0.000	0.057	0.017
72	-0.192	0.062	-0.052	0.021	0.019
73	0.034	0.116	-0.012	-0.028	-0.003
74	-0.206	-0.249	-0.136	0.043	0.025
75	-0.067	0.058	-0.018	0.028	0.059

76	-0.577	-0.462	-0.306	0.071	-0.015
77	-0.049	-0.550	-0.027	0.005	-0.052
78	-0.039	-0.078	0.014	0.043	-0.003
79	0.022	-0.034	-0.048	-0.006	-0.024
80	0.065	0.100	-0.008	-0.003	0.046

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	1.000				
62	-0.037	1.000			
63	-0.014	0.012	1.000		
64	-0.093	0.050	0.030	1.000	
65	0.038	0.011	0.051	-0.066	1.000
66	0.068	0.016	-0.002	0.024	0.075
67	0.017	-0.005	-0.012	-0.026	0.034
68	-0.112	0.008	0.003	-0.040	-0.046
69	0.081	0.014	-0.053	-0.050	-0.014
70	-0.066	-0.002	-0.019	0.053	-0.037
71	0.025	0.015	0.005	-0.003	-0.024
72	0.023	0.017	0.037	-0.023	0.031
73	0.027	-0.014	-0.020	0.001	0.074
74	-0.057	-0.011	-0.001	0.010	-0.042
75	0.005	-0.017	-0.003	0.017	-0.003
76	0.024	-0.016	0.023	-0.020	-0.027
77	-0.004	0.032	-0.044	-0.038	-0.043
78	-0.018	-0.002	0.017	-0.005	0.038
79	-0.057	0.030	0.007	0.000	0.034
80	-0.062	0.012	-0.031	0.027	-0.024

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	1.000				
67	0.011	1.000			
68	-0.043	0.008	1.000		
69	-0.039	-0.029	0.054	1.000	
70	-0.007	-0.017	0.078	-0.038	1.000
71	-0.070	-0.010	0.062	0.025	0.013
72	-0.030	-0.060	-0.020	-0.015	-0.007
73	0.008	-0.028	-0.015	0.050	0.167
74	-0.021	0.034	0.133	-0.007	0.076

75	-0.037	-0.031	-0.022	-0.006	-0.024
76	-0.021	-0.020	-0.012	-0.014	0.031
77	0.018	0.033	0.008	-0.036	-0.026
78	-0.023	0.002	-0.029	-0.017	-0.605
79	-0.026	-0.017	0.031	-0.004	0.023
80	-0.002	-0.011	0.058	0.012	0.152

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	-0.010	1.000			
73	0.055	0.010	1.000		
74	0.002	-0.109	-0.103	1.000	
75	0.015	0.159	0.047	-0.088	1.000
76	0.036	0.114	-0.001	0.184	0.070
77	0.008	-0.192	-0.089	0.109	-0.118
78	-0.037	-0.005	-0.218	-0.047	0.131
79	-0.014	-0.083	0.007	0.029	0.018
80	-0.016	0.050	0.028	0.290	0.544

# ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	1.000				
77	0.077	1.000			
78	0.050	0.087	1.000		
79	0.025	0.033	0.054	1.000	
80	-0.070	-0.073	-0.118	-0.027	1.000

## TECHNICAL 8 OUTPUT

## TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380
3	253358

POTENTIAL          PARAMETER WITH



ITERATION	SCALE REDUCTION	HIGHEST PSR
100	1.069	78
200	1.038	79
300	1.010	52
400	1.027	52
500	1.026	75
600	1.028	75
700	1.013	75
800	1.008	75
900	1.006	72
1000	1.009	57



Effects of combined practices and a smaller set of practices

#### SUMMARY OF DATA

Number of clusters 58

Size (s) Cluster ID with Size s

1	166
2	74 205
3	106 182 165
4	93 170 22 192 4
5	65 71 50 84
6	80 72
7	40 107 61 75
8	169 30 173 228
9	144 81 83 181
10	69 145 36 68
11	108 116 174 154
12	206 162
13	226 114
14	2
15	152 98
18	156
19	202
21	92 6
24	178
25	142 122
32	24
37	204
47	209
53	125
67	217
174	110
210	100

#### COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value 0.100

Number of missing data patterns 5

PROPORTION OF DATA PRESENT

	Covariance Coverage				
	KESCAT16	ACC	ACT	EAT	ALC
KESCAT16	1.000				
ACC	1.000	1.000			
ACT	1.000	1.000	1.000		
EAT	1.000	1.000	1.000	1.000	
ALC	1.000	1.000	1.000	1.000	1.000
PHY	1.000	1.000	1.000	1.000	1.000
PSY	1.000	1.000	1.000	1.000	1.000
SMO	1.000	1.000	1.000	1.000	1.000
TER	1.000	1.000	1.000	1.000	1.000
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	PHY	PSY	SMO	TER	BEN
PHY	1.000				
PSY	1.000	1.000			
SMO	1.000	1.000	1.000		
TER	1.000	1.000	1.000	1.000	
BEN	1.000	1.000	1.000	1.000	1.000
HPR	1.000	1.000	1.000	1.000	1.000
SPR	1.000	1.000	1.000	1.000	1.000
CUL	1.000	1.000	1.000	1.000	1.000
FEL	1.000	1.000	1.000	1.000	1.000
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990

BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	HPR	SPR	CUL	FEL	PHY15
HPR	1.000				
SPR	1.000	1.000			
CUL	1.000	1.000	1.000		
FEL	1.000	1.000	1.000	1.000	
PHY15	1.000	1.000	1.000	1.000	1.000
KES15	1.000	1.000	1.000	1.000	1.000
CHOICE15	0.990	0.990	0.990	0.990	0.990
BULLY15	0.990	0.990	0.990	0.990	0.990
PRESS15	0.990	0.990	0.990	0.990	0.990
DUTIES15	0.991	0.991	0.991	0.991	0.991

	Covariance Coverage				
	KES15	CHOICE15	BULLY15	PRESS15	DUTIES15
KES15	1.000				
CHOICE15	0.990	0.990			
BULLY15	0.990	0.989	0.990		
PRESS15	0.990	0.989	0.989	0.990	
DUTIES15	0.991	0.990	0.990	0.990	0.991

#### UNIVARIATE PROPORTIONS AND COUNTS FOR CATEGORICAL VARIABLES

KESCAT16		
Category 1	0.347	386.000
Category 2	0.653	727.000

#### UNIVARIATE SAMPLE STATISTICS

#### UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/	Mean/	Skewness/	Minimum/ % with	Percentiles
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	Sample Size	Variance	Kurtosis	Maximum	Min/Max	20%/60%	40%/80%	Median
ACC		0.466	0.138	0.000	53.45%	0.000	0.000	0.000
	58.000	0.249	-1.981	1.000	46.55%	1.000	1.000	
ACT		0.124	-0.145	-1.320	18.97%	-0.480	-0.450	0.390
	58.000	0.922	-1.308	1.310	29.31%	0.450	1.310	
EAT		0.322	-0.402	-1.440	12.07%	-0.820	-0.120	0.460
	58.000	0.969	-0.958	1.680	13.79%	1.030	1.100	
ALC		0.052	0.848	-0.910	44.83%	-0.910	-0.910	0.010
	58.000	1.127	-0.214	2.480	8.62%	0.020	0.940	
PHY		0.210	0.307	-1.670	5.17%	-0.370	-0.240	0.330
	58.000	0.990	-0.390	2.040	13.79%	0.360	1.030	
PSY		0.103	0.308	-1.180	18.97%	-0.610	-0.470	-0.150
	58.000	0.974	-1.227	1.660	17.24%	0.310	1.090	
SMO		0.325	1.227	-0.720	31.03%	-0.720	-0.270	-0.270
	58.000	1.500	0.498	4.160	1.72%	0.150	1.340	
TER		0.192	0.292	-1.010	31.03%	-1.010	-0.210	-0.145
	58.000	1.097	-1.340	1.750	22.41%	0.720	1.750	
BEN		0.050	0.015	-1.440	5.17%	-0.950	-0.270	-0.010
	58.000	0.892	-1.255	1.330	22.41%	0.090	1.330	
HPR		0.235	0.462	-1.360	6.90%	-0.830	-0.120	0.160
	58.000	1.063	-0.339	2.800	3.45%	0.420	0.950	
SPR		0.224	-0.395	-1.580	12.07%	-0.840	-0.140	0.440
	58.000	1.001	-0.919	1.560	17.24%	0.450	0.970	
CUL		0.025	-0.330	-2.280	1.72%	-0.660	-0.310	0.055
	58.000	0.909	-0.345	1.850	1.72%	0.280	0.860	
FEL		43.091	0.291	0.000	22.41%	0.000	15.000	35.000
	58.000	1593.639	-1.582	100.000	18.97%	50.000	95.000	
PHY15		0.000	0.390	-1.412	11.50%	-0.412	-0.412	-0.412
	1113.000	0.702	0.082	2.588	1.08%	0.588	0.588	
KES15		0.000	1.366	-0.556	20.75%	-0.556	-0.222	-0.222
	1113.000	0.313	1.871	2.278	0.63%	-0.056	0.444	
CHOICE15		0.000	-0.116	-1.814	15.06%	-0.814	0.186	0.186
	1102.000	1.193	-0.747	2.186	4.45%	0.186	1.186	
BULLY15		0.000	1.887	-0.426	71.96%	-0.426	-0.426	-0.426
	1102.000	0.602	3.132	3.574	0.45%	-0.426	0.574	
PRESS15		0.000	0.096	-1.915	9.89%	-0.915	0.085	0.085
	1102.000	1.160	-0.512	2.085	8.35%	0.085	1.085	
DUTIES15		0.000	-0.677	-2.672	3.54%	-0.672	0.328	0.328
	1103.000	1.031	0.049	1.328	20.22%	0.328	1.328	

THE MODEL ESTIMATION TERMINATED NORMALLY

USE THE FBITERATIONS OPTION TO INCREASE THE NUMBER OF ITERATIONS BY A FACTOR  
OF AT LEAST TWO TO CHECK CONVERGENCE AND THAT THE PSR VALUE DOES NOT INCREASE.

# MODEL FIT INFORMATION

Number of Free Parameters 81

## MODEL RESULTS

	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.		Significance
				Lower 2.5%	Upper 2.5%	
Within Level						
KESCAT16 ON						
PHY15	0.165	0.052	0.001	0.069	0.272	*
CHOICE15	0.031	0.041	0.229	-0.043	0.113	
BULLY15	0.107	0.061	0.042	-0.016	0.222	
DUTIES15	-0.081	0.044	0.035	-0.164	0.004	
PRESS15	-0.043	0.042	0.147	-0.126	0.036	
KES15	0.809	0.096	0.000	0.626	0.999	*
KES15 WITH						
PHY15	0.108	0.014	0.000	0.079	0.134	*
CHOICE15	-0.096	0.018	0.000	-0.134	-0.061	*
BULLY15	0.072	0.013	0.000	0.047	0.099	*
PRESS15	0.063	0.018	0.000	0.027	0.098	*
DUTIES15	-0.074	0.018	0.000	-0.105	-0.037	*
PHY15 WITH						
CHOICE15	-0.095	0.027	0.000	-0.150	-0.044	*
BULLY15	0.041	0.019	0.013	0.004	0.079	*
PRESS15	0.119	0.028	0.000	0.066	0.176	*
DUTIES15	-0.059	0.025	0.010	-0.108	-0.008	*
CHOICE15 WITH						
BULLY15	-0.140	0.026	0.000	-0.193	-0.090	*
PRESS15	-0.195	0.037	0.000	-0.268	-0.125	*
DUTIES15	0.149	0.034	0.000	0.082	0.220	*

BULLY15 WITH						
PRESS15	0.202	0.025	0.000	0.154	0.253	*
DUTIES15	-0.176	0.024	0.000	-0.227	-0.131	*
PRESS15 WITH						
DUTIES15	-0.288	0.034	0.000	-0.357	-0.219	*
Means						
PHY15	-0.001	0.025	0.487	-0.049	0.049	
KES15	0.000	0.017	0.488	-0.034	0.031	
CHOICE15	0.001	0.033	0.495	-0.065	0.066	
BULLY15	-0.001	0.023	0.487	-0.044	0.046	
PRESS15	-0.001	0.032	0.492	-0.060	0.062	
DUTIES15	-0.001	0.030	0.490	-0.058	0.059	
Variances						
PHY15	0.701	0.030	0.000	0.645	0.766	*
KES15	0.314	0.013	0.000	0.290	0.341	*
CHOICE15	1.193	0.050	0.000	1.102	1.297	*
BULLY15	0.603	0.026	0.000	0.554	0.657	*
PRESS15	1.162	0.049	0.000	1.063	1.257	*
DUTIES15	1.034	0.044	0.000	0.956	1.134	*
Between Level						
PROG BY						
ACC	1.000	0.000	0.000	1.000	1.000	
ACT	3.502	0.707	0.000	2.347	5.201	*
EAT	4.115	0.748	0.000	2.965	5.807	*
ALC	2.701	0.772	0.000	1.373	4.384	*
PHY	3.597	0.748	0.000	2.439	5.347	*
PSY	3.676	0.720	0.000	2.487	5.298	*
SMO	4.296	0.868	0.000	2.883	6.218	*
TER	3.040	0.729	0.000	1.818	4.698	*
BEN	2.146	0.687	0.000	0.960	3.664	*
HPR	3.882	0.940	0.000	2.197	5.887	*
SPR	3.875	0.751	0.000	2.661	5.587	*
CUL	3.085	0.944	0.000	1.182	4.992	*
FEL	72.311	28.784	0.003	23.173	137.088	*
SING BY						
HPR	1.000	0.000	0.000	1.000	1.000	
CUL	1.182	0.592	0.003	0.254	2.514	*



KESCAT16	ON						
PROG		-0.647	0.396	0.037	-1.497	0.068	
PROGSQ		-2.351	1.365	0.024	-5.384	-0.081	*
SING		0.013	0.243	0.473	-0.457	0.552	
SINGSQ		-0.350	0.681	0.300	-1.772	0.936	
PROG	WITH						
SING		0.006	0.030	0.393	-0.052	0.071	
Intercepts							
ACC		0.465	0.076	0.000	0.321	0.617	*
ACT		0.126	0.142	0.198	-0.154	0.407	
EAT		0.325	0.146	0.015	0.031	0.606	*
ALC		0.053	0.148	0.359	-0.228	0.343	
PHY		0.211	0.144	0.074	-0.085	0.489	
PSY		0.106	0.146	0.227	-0.195	0.390	
SMO		0.327	0.177	0.040	-0.040	0.649	
TER		0.190	0.157	0.117	-0.120	0.482	
BEN		0.053	0.138	0.345	-0.215	0.331	
HPR		0.236	0.151	0.055	-0.053	0.540	
SPR		0.228	0.147	0.061	-0.049	0.510	
CUL		0.030	0.140	0.415	-0.254	0.301	
FEL		43.527	5.763	0.000	31.991	54.293	*
Thresholds							
KESCAT16\$1		-0.596	0.101	0.000	-0.787	-0.394	*
Variances							
PROG		0.058	0.018	0.000	0.034	0.104	*
SING		0.168	0.087	0.000	0.072	0.407	*
Residual Variances							
KESCAT16		0.016	0.026	0.000	0.000	0.095	*
ACC		0.250	0.051	0.000	0.176	0.370	*
ACT		0.442	0.101	0.000	0.294	0.689	*
EAT		0.277	0.073	0.000	0.167	0.461	*
ALC		0.893	0.190	0.000	0.624	1.354	*
PHY		0.480	0.108	0.000	0.322	0.749	*
PSY		0.442	0.102	0.000	0.295	0.686	*
SMO		0.772	0.171	0.000	0.514	1.162	*
TER		0.758	0.164	0.000	0.521	1.156	*
BEN		0.766	0.161	0.000	0.524	1.141	*
HPR		0.264	0.097	0.000	0.079	0.475	*
SPR		0.397	0.096	0.000	0.249	0.629	*

CUL	0.279	0.139	0.000	0.030	0.555	*
FEL	1478.786	321.508	0.000	1018.413	2278.210	*

# STANDARDIZED MODEL RESULTS

## STDYX Standardization

		Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I. Lower 2.5%    Upper 2.5%		Significance
Within Level							
KESCAT16    ON							
	PHY15	0.121	0.038	0.001	0.051	0.200	*
	CHOICE15	0.029	0.039	0.229	-0.042	0.110	
	BULLY15	0.073	0.041	0.042	-0.011	0.151	
	DUTIES15	-0.073	0.039	0.035	-0.145	0.004	
	PRESS15	-0.041	0.039	0.147	-0.117	0.034	
	KES15	0.399	0.040	0.000	0.318	0.474	*
KES15    WITH							
	PHY15	0.229	0.028	0.000	0.171	0.281	*
	CHOICE15	-0.158	0.029	0.000	-0.216	-0.102	*
	BULLY15	0.166	0.029	0.000	0.109	0.224	*
	PRESS15	0.104	0.030	0.000	0.044	0.160	*
	DUTIES15	-0.129	0.030	0.000	-0.184	-0.067	*
PHY15    WITH							
	CHOICE15	-0.105	0.030	0.000	-0.161	-0.049	*
	BULLY15	0.063	0.030	0.013	0.005	0.120	*
	PRESS15	0.132	0.030	0.000	0.074	0.193	*
	DUTIES15	-0.069	0.029	0.010	-0.125	-0.010	*
CHOICE15 WITH							
	BULLY15	-0.164	0.029	0.000	-0.224	-0.108	*
	PRESS15	-0.165	0.030	0.000	-0.223	-0.107	*
	DUTIES15	0.135	0.030	0.000	0.074	0.194	*
BULLY15    WITH							
	PRESS15	0.241	0.027	0.000	0.186	0.293	*
	DUTIES15	-0.223	0.029	0.000	-0.282	-0.167	*
PRESS15    WITH							

DUTIES15	-0.263	0.028	0.000	-0.319	-0.203	*
Means						
PHY15	-0.001	0.030	0.487	-0.059	0.058	
KES15	-0.001	0.031	0.488	-0.061	0.055	
CHOICE15	0.000	0.030	0.495	-0.058	0.061	
BULLY15	-0.001	0.029	0.487	-0.057	0.059	
PRESS15	-0.001	0.030	0.492	-0.057	0.058	
DUTIES15	-0.001	0.030	0.490	-0.057	0.059	
Variances						
PHY15	1.000	0.000	0.000	1.000	1.000	
KES15	1.000	0.000	0.000	1.000	1.000	
CHOICE15	1.000	0.000	0.000	1.000	1.000	
BULLY15	1.000	0.000	0.000	1.000	1.000	
PRESS15	1.000	0.000	0.000	1.000	1.000	
DUTIES15	1.000	0.000	0.000	1.000	1.000	
Between Level						
PROG	BY					
ACC		0.433	0.058	0.000	0.331	0.557 *
ACT		0.785	0.063	0.000	0.632	0.880 *
EAT		0.884	0.039	0.000	0.795	0.943 *
ALC		0.570	0.108	0.000	0.328	0.743 *
PHY		0.787	0.065	0.000	0.628	0.883 *
PSY		0.799	0.061	0.000	0.656	0.889 *
SMO		0.769	0.067	0.000	0.613	0.866 *
TER		0.650	0.089	0.000	0.445	0.794 *
BEN		0.508	0.116	0.000	0.247	0.710 *
HPR		0.804	0.119	0.000	0.541	1.019 *
SPR		0.834	0.053	0.000	0.702	0.911 *
CUL		0.701	0.158	0.000	0.326	0.947 *
FEL		0.416	0.129	0.003	0.143	0.646 *
SING	BY					
HPR		0.350	0.086	0.000	0.218	0.550 *
CUL		0.465	0.176	0.003	0.107	0.772 *
KESCAT16	ON					
PROG		-0.450	0.224	0.037	-0.828	0.059
PROGSQ		-0.394	0.168	0.024	-0.637	-0.015 *
SING		0.017	0.254	0.473	-0.501	0.470
SINGSQ		-0.166	0.270	0.300	-0.590	0.394

PROG	WITH					
SING		0.073	0.248	0.393	-0.407	0.525
Intercepts						
ACC		0.833	0.151	0.000	0.536	1.131 *
ACT		0.115	0.131	0.198	-0.141	0.364
EAT		0.290	0.130	0.015	0.028	0.532 *
ALC		0.047	0.126	0.359	-0.199	0.290
PHY		0.191	0.128	0.074	-0.073	0.424
PSY		0.094	0.129	0.227	-0.176	0.342
SMO		0.239	0.130	0.040	-0.025	0.487
TER		0.166	0.135	0.117	-0.102	0.418
BEN		0.052	0.134	0.345	-0.209	0.313
HPR		0.202	0.129	0.055	-0.047	0.461
SPR		0.202	0.129	0.061	-0.044	0.460
CUL		0.029	0.130	0.415	-0.225	0.276
FEL		1.016	0.171	0.000	0.687	1.339 *
Variances						
PROG		1.000	0.000	0.000	1.000	1.000
SING		1.000	0.000	0.000	1.000	1.000
Residual Variances						
KESCAT16		0.122	0.156	0.000	0.003	0.579 *
ACC		0.812	0.052	0.000	0.690	0.890 *
ACT		0.384	0.096	0.000	0.226	0.600 *
EAT		0.218	0.067	0.000	0.111	0.369 *
ALC		0.675	0.117	0.000	0.448	0.893 *
PHY		0.381	0.098	0.000	0.220	0.606 *
PSY		0.361	0.094	0.000	0.210	0.569 *
SMO		0.409	0.098	0.000	0.250	0.624 *
TER		0.578	0.112	0.000	0.369	0.802 *
BEN		0.742	0.113	0.000	0.496	0.939 *
HPR		0.189	0.078	0.000	0.054	0.365 *
SPR		0.305	0.086	0.000	0.170	0.507 *
CUL		0.246	0.125	0.000	0.023	0.498 *
FEL		0.827	0.103	0.000	0.582	0.980 *
R-SQUARE						
Within Level						

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.224	0.034	0.000	0.162	0.293

Between Level

Variable	Estimate	Posterior S.D.	One-Tailed P-Value	95% C.I.	
				Lower 2.5%	Upper 2.5%
KESCAT16	0.878	0.156	0.000	0.421	0.997
ACC	0.188	0.052	0.000	0.110	0.310
ACT	0.616	0.096	0.000	0.400	0.774
EAT	0.782	0.067	0.000	0.631	0.889
ALC	0.325	0.117	0.000	0.107	0.552
PHY	0.619	0.098	0.000	0.394	0.780
PSY	0.639	0.094	0.000	0.431	0.790
SMO	0.591	0.098	0.000	0.376	0.750
TER	0.422	0.112	0.000	0.198	0.631
BEN	0.258	0.113	0.000	0.061	0.504
HPR	0.811	0.078	0.000	0.635	0.946
SPR	0.695	0.086	0.000	0.493	0.830
CUL	0.754	0.125	0.000	0.502	0.977
FEL	0.173	0.103	0.000	0.020	0.418

TECHNICAL 1 OUTPUT

PARAMETER SPECIFICATION FOR WITHIN

TAU

KESCAT16

\_\_\_\_\_

0

NU

KESCAT16

\_\_\_\_\_

0

PHY15

\_\_\_\_\_

0

KES15

\_\_\_\_\_

0

CHOICE15

\_\_\_\_\_

0

BULLY15

\_\_\_\_\_

0

NU	PRESS15	DUTIES15
	<u>0</u>	<u>0</u>

	LAMBDA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

	LAMBDA	
	PRESS15	DUTIES15
KESCAT16	<u>0</u>	<u>0</u>
PHY15	0	0
KES15	0	0
CHOICE15	0	0
BULLY15	0	0
PRESS15	0	0
DUTIES15	0	0

	THETA				
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
PHY15	0	0			
KES15	0	0	0		
CHOICE15	0	0	0	0	
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

THETA	
PRESS15	DUTIES15

PRESS15	<u>0</u>	<u>0</u>
DUTIES15	0	0

ALPHA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	

ALPHA	
PRESS15	DUTIES15
<u>5</u>	<u>6</u>

BETA					
KESCAT16	PHY15	KES15	CHOICE15	BULLY15	
<u>0</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
KESCAT16	0	0	0	0	0
PHY15	0	0	0	0	0
KES15	0	0	0	0	0
CHOICE15	0	0	0	0	0
BULLY15	0	0	0	0	0
PRESS15	0	0	0	0	0
DUTIES15	0	0	0	0	0

BETA	
PRESS15	DUTIES15
<u>11</u>	<u>12</u>
KESCAT16	0
PHY15	0
KES15	0
CHOICE15	0
BULLY15	0
PRESS15	0
DUTIES15	0

PSI				
KESCAT16	PHY15	KES15	CHOICE15	BULLY15
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

KESCAT16	0					
PHY15	0	13				
KES15	0	14	15			
CHOICE15	0	16	17	18		
BULLY15	0	19	20	21	22	
PRESS15	0	23	24	25	26	
DUTIES15	0	28	29	30	31	

	PSI	
	PRESS15	DUTIES15
PRESS15	<u>27</u>	<u></u>
DUTIES15	32	33

# PARAMETER SPECIFICATION FOR BETWEEN

TAU	
KESCAT16	
<u></u>	<u></u>
81	

NU					
KESCAT16	ACC	ACT	EAT	ALC	
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
0	34	35	36	37	

NU					
PHY	PSY	SMO	TER	BEN	
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
38	39	40	41	42	

NU				
HPR	SPR	CUL	FEL	
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
43	44	45	46	

LAMBDA



	PROG	SING	PROGSQ	SINGSQ	KESCAT16
KESCAT16	0	0	0	0	0
ACC	0	0	0	0	0
ACT	47	0	0	0	0
EAT	48	0	0	0	0
ALC	49	0	0	0	0
PHY	50	0	0	0	0
PSY	51	0	0	0	0
SMO	52	0	0	0	0
TER	53	0	0	0	0
BEN	54	0	0	0	0
HPR	55	0	0	0	0
SPR	56	0	0	0	0
CUL	57	58	0	0	0
FEL	59	0	0	0	0

	THETA KESCAT16	ACC	ACT	EAT	ALC
KESCAT16	0				
ACC	0	60			
ACT	0	0	61		
EAT	0	0	0	62	
ALC	0	0	0	0	63
PHY	0	0	0	0	0
PSY	0	0	0	0	0
SMO	0	0	0	0	0
TER	0	0	0	0	0
BEN	0	0	0	0	0
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

	THETA PHY	PSY	SMO	TER	BEN
PHY	64				
PSY	0	65			
SMO	0	0	66		
TER	0	0	0	67	

BEN	0	0	0	0	68
HPR	0	0	0	0	0
SPR	0	0	0	0	0
CUL	0	0	0	0	0
FEL	0	0	0	0	0

THETA				
	HPR	SPR	CUL	FEL
HPR	69			
SPR	0	70		
CUL	0	0	71	
FEL	0	0	0	72

ALPHA					
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
	0	0	0	0	0

BETA					
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	0	0	0	0	0
SING	0	0	0	0	0
PROGSQ	0	0	0	0	0
SINGSQ	0	0	0	0	0
KESCAT16	73	74	75	76	0

PSI					
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	77				
SING	78	79			
PROGSQ	0	0	0		
SINGSQ	0	0	0	0	
KESCAT16	0	0	0	0	80

STARTING VALUES FOR WITHIN

TAU
KESCAT16
<hr/>
0.000

NU	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	0.000	0.000	0.000	0.000	0.000

NU	PRESS15	DUTIES15
	<hr/>	<hr/>
	0.000	0.000

LAMBDA	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
KESCAT16	1.000	0.000	0.000	0.000	0.000
PHY15	0.000	1.000	0.000	0.000	0.000
KES15	0.000	0.000	1.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	1.000	0.000
BULLY15	0.000	0.000	0.000	0.000	1.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

LAMBDA	PRESS15	DUTIES15
	<hr/>	<hr/>
KESCAT16	0.000	0.000
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	1.000	0.000
DUTIES15	0.000	1.000

THETA

	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000				
PHY15	0.000	0.000			
KES15	0.000	0.000	0.000		
CHOICE15	0.000	0.000	0.000	0.000	
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

THETA		
PRESS15		DUTIES15
PRESS15	0.000	
DUTIES15	0.000	0.000

ALPHA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
0.000		0.000	0.000	0.000	0.000

ALPHA		
PRESS15		DUTIES15
0.000		0.000

BETA					
KESCAT16		PHY15	KES15	CHOICE15	BULLY15
KESCAT16	0.000	0.000	0.000	0.000	0.000
PHY15	0.000	0.000	0.000	0.000	0.000
KES15	0.000	0.000	0.000	0.000	0.000
CHOICE15	0.000	0.000	0.000	0.000	0.000
BULLY15	0.000	0.000	0.000	0.000	0.000
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

BETA		
PRESS15		DUTIES15

KESCAT16	<u>0.000</u>	<u>0.000</u>
PHY15	0.000	0.000
KES15	0.000	0.000
CHOICE15	0.000	0.000
BULLY15	0.000	0.000
PRESS15	0.000	0.000
DUTIES15	0.000	0.000

PSI					
	KESCAT16	PHY15	KES15	CHOICE15	BULLY15
KESCAT16	<u>1.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
PHY15	0.000	0.351			
KES15	0.000	0.000	0.157		
CHOICE15	0.000	0.000	0.000	0.597	
BULLY15	0.000	0.000	0.000	0.000	0.301
PRESS15	0.000	0.000	0.000	0.000	0.000
DUTIES15	0.000	0.000	0.000	0.000	0.000

PSI		
	PRESS15	DUTIES15
PRESS15	<u>0.580</u>	<u></u>
DUTIES15	0.000	0.516

STARTING VALUES FOR BETWEEN

TAU	
	KESCAT16
	<u>-0.352</u>

NU					
	KESCAT16	ACC	ACT	EAT	ALC
	<u>0.000</u>	<u>0.495</u>	<u>0.208</u>	<u>0.407</u>	<u>0.715</u>

NU	PHY	PSY	SMO	TER	BEN
	<u>0.303</u>	<u>0.210</u>	<u>0.237</u>	<u>0.333</u>	<u>0.205</u>

NU	HPR	SPR	CUL	FEL
	<u>0.416</u>	<u>0.415</u>	<u>-0.126</u>	<u>45.410</u>

LAMBDA	PROG	SING	PROGSQ	SINGSQ	KESCAT16
KESCAT16	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>1.000</u>
ACC	1.000	0.000	0.000	0.000	0.000
ACT	1.000	0.000	0.000	0.000	0.000
EAT	1.000	0.000	0.000	0.000	0.000
ALC	1.000	0.000	0.000	0.000	0.000
PHY	1.000	0.000	0.000	0.000	0.000
PSY	1.000	0.000	0.000	0.000	0.000
SMO	1.000	0.000	0.000	0.000	0.000
TER	1.000	0.000	0.000	0.000	0.000
BEN	1.000	0.000	0.000	0.000	0.000
HPR	1.000	1.000	0.000	0.000	0.000
SPR	1.000	0.000	0.000	0.000	0.000
CUL	1.000	1.000	0.000	0.000	0.000
FEL	1.000	0.000	0.000	0.000	0.000

THETA	KESCAT16	ACC	ACT	EAT	ALC
KESCAT16	<u>0.000</u>	<u></u>	<u></u>	<u></u>	<u></u>
ACC	0.000	0.125			
ACT	0.000	0.000	0.415		
EAT	0.000	0.000	0.000	0.367	
ALC	0.000	0.000	0.000	0.000	0.694
PHY	0.000	0.000	0.000	0.000	0.000
PSY	0.000	0.000	0.000	0.000	0.000
SMO	0.000	0.000	0.000	0.000	0.000
TER	0.000	0.000	0.000	0.000	0.000
BEN	0.000	0.000	0.000	0.000	0.000

HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA					
	PHY	PSY	SMO	TER	BEN
PHY	0.305				
PSY	0.000	0.499			
SMO	0.000	0.000	0.537		
TER	0.000	0.000	0.000	0.684	
BEN	0.000	0.000	0.000	0.000	0.316
HPR	0.000	0.000	0.000	0.000	0.000
SPR	0.000	0.000	0.000	0.000	0.000
CUL	0.000	0.000	0.000	0.000	0.000
FEL	0.000	0.000	0.000	0.000	0.000

THETA				
	HPR	SPR	CUL	FEL
HPR	0.372			
SPR	0.000	0.351		
CUL	0.000	0.000	0.344	
FEL	0.000	0.000	0.000	654.953

ALPHA					
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
	0.000	0.000	0.000	0.000	0.000

BETA					
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	0.000	0.000	0.000	0.000	0.000
SING	0.000	0.000	0.000	0.000	0.000
PROGSQ	0.000	0.000	0.000	0.000	0.000
SINGSQ	0.000	0.000	0.000	0.000	0.000
KESCAT16	0.000	0.000	0.000	0.000	0.000

	PSI				
	PROG	SING	PROGSQ	SINGSQ	KESCAT16
PROG	1.000				
SING	0.000	1.000			
PROGSQ	0.000	0.000	0.000		
SINGSQ	0.000	0.000	0.000	0.000	
KESCAT16	0.000	0.000	0.000	0.000	1.000

# PRIORS FOR ALL PARAMETERS

## PRIOR MEAN

## PRIOR VARIANCE

## PRIOR STD. DEV.

Parameter 1~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 2~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 3~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 4~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 5~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 6~N(0.000,infinity)	0.0000	infinity	infinity
Parameter 7~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 8~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 9~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 10~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 11~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 12~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 13~IW(1.000,7)	infinity	infinity	infinity
Parameter 14~IW(0.000,7)	infinity	infinity	infinity
Parameter 15~IW(1.000,7)	infinity	infinity	infinity
Parameter 16~IW(0.000,7)	infinity	infinity	infinity
Parameter 17~IW(0.000,7)	infinity	infinity	infinity
Parameter 18~IW(1.000,7)	infinity	infinity	infinity
Parameter 19~IW(0.000,7)	infinity	infinity	infinity
Parameter 20~IW(0.000,7)	infinity	infinity	infinity
Parameter 21~IW(0.000,7)	infinity	infinity	infinity
Parameter 22~IW(1.000,7)	infinity	infinity	infinity
Parameter 23~IW(0.000,7)	infinity	infinity	infinity
Parameter 24~IW(0.000,7)	infinity	infinity	infinity
Parameter 25~IW(0.000,7)	infinity	infinity	infinity
Parameter 26~IW(0.000,7)	infinity	infinity	infinity
Parameter 27~IW(1.000,7)	infinity	infinity	infinity
Parameter 28~IW(0.000,7)	infinity	infinity	infinity
Parameter 29~IW(0.000,7)	infinity	infinity	infinity
Parameter 30~IW(0.000,7)	infinity	infinity	infinity



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Parameter 75~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 76~N(0.000,5.000)	0.0000	5.0000	2.2361
Parameter 77~IW(1.000,3)	infinity	infinity	infinity
Parameter 78~IW(0.000,3)	infinity	infinity	infinity
Parameter 79~IW(1.000,3)	infinity	infinity	infinity
Parameter 80~IG(-1.000,0.000)	infinity	infinity	infinity
Parameter 81~N(0.000,5.000)	0.0000	5.0000	2.2361

### TECHNICAL 3 OUTPUT

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	1	2	3	4	5
1	0.620042D-03				
2	0.100310D-03	0.293933D-03			
3	-0.569001D-04	-0.111204D-03	0.110062D-02		
4	0.274111D-04	0.804514D-04	-0.100311D-03	0.516484D-03	
5	0.124910D-03	0.646404D-04	-0.134270D-03	0.154389D-03	0.101733D-02
6	-0.636592D-04	-0.707875D-04	0.145534D-03	-0.123848D-03	-0.224003D-03
7	-0.663572D-04	-0.253432D-04	0.111909D-03	-0.281954D-04	-0.875530D-05
8	0.361830D-04	-0.211998D-04	0.123469D-03	0.536347D-04	-0.590781D-05
9	0.224128D-04	-0.484256D-05	0.104573D-04	-0.457550D-05	0.640088D-05
10	0.884516D-05	-0.216601D-04	-0.164888D-05	0.190224D-04	-0.707733D-04
11	-0.336738D-04	0.404884D-04	-0.434221D-04	-0.251770D-04	0.215683D-04
12	0.721704D-04	0.174540D-04	-0.687762D-04	-0.340772D-05	0.509357D-04
13	0.268282D-04	-0.545315D-05	-0.278487D-04	0.333286D-04	0.304352D-04
14	-0.477222D-05	-0.925409D-05	-0.116477D-05	0.148119D-04	0.165203D-04
15	-0.830219D-05	-0.602194D-05	-0.456092D-05	0.510264D-05	0.605593D-05
16	-0.435770D-04	-0.366834D-05	0.156002D-04	-0.757535D-05	-0.263388D-04
17	0.628470D-06	0.107931D-04	0.587742D-06	0.108571D-04	0.662399D-05
18	-0.497344D-04	-0.252304D-04	-0.238644D-05	-0.341995D-04	-0.184787D-04
19	-0.232907D-05	-0.568698D-05	0.932493D-05	0.456434D-06	-0.277719D-06
20	-0.289355D-06	-0.912339D-05	0.106328D-04	0.585045D-05	0.782881D-05
21	-0.331744D-05	-0.150299D-04	0.389054D-05	-0.123604D-04	-0.368210D-05
22	0.213134D-04	-0.764300D-05	0.228530D-04	-0.420003D-05	-0.192449D-04
23	0.298046D-04	-0.974974D-05	-0.156298D-04	-0.480730D-05	0.241362D-05
24	-0.680505D-05	-0.175408D-04	0.977894D-05	0.163797D-04	0.530319D-05
25	0.168173D-04	-0.148315D-04	-0.249341D-05	0.216124D-04	0.377311D-04
26	-0.169649D-05	-0.858603D-05	0.247245D-04	-0.369635D-05	-0.225930D-04
27	0.346629D-06	0.565396D-06	0.289583D-04	-0.433877D-04	-0.280102D-04
28	-0.377380D-05	0.245191D-04	0.160614D-04	-0.132591D-05	0.518631D-05
29	0.176898D-04	0.256161D-05	-0.115727D-04	-0.149430D-04	-0.230217D-04

30	0.134906D-05	-0.489721D-06	-0.798578D-05	0.118857D-04	-0.428347D-04
31	-0.693104D-05	0.494820D-05	-0.101943D-05	0.272956D-05	-0.215147D-06
32	-0.612636D-05	-0.113243D-04	-0.551572D-05	0.281739D-04	0.602390D-04
33	0.148618D-04	0.143690D-05	0.664675D-04	0.464089D-05	0.127282D-04
34	-0.126287D-03	-0.395111D-04	0.850961D-04	-0.323899D-04	-0.129721D-04
35	-0.592233D-04	0.105244D-04	0.307375D-04	0.285610D-05	0.800629D-04
36	0.320195D-04	0.475788D-04	0.408496D-04	0.609188D-04	0.176038D-03
37	-0.127316D-03	-0.176822D-04	-0.110680D-04	-0.161252D-04	0.195491D-03
38	-0.987545D-04	-0.245418D-04	-0.143290D-03	-0.112323D-04	0.156516D-04
39	0.201413D-04	-0.324537D-04	0.249408D-04	-0.437265D-04	0.148231D-03
40	-0.113762D-03	-0.251205D-04	0.237916D-04	0.354476D-04	0.105065D-03
41	-0.276992D-04	-0.299711D-04	0.224777D-03	-0.414298D-04	0.377311D-04
42	0.722331D-04	0.274177D-04	-0.731440D-04	0.158188D-03	-0.359456D-04
43	0.191312D-04	-0.498632D-04	0.131956D-03	0.387393D-04	0.118349D-03
44	-0.973525D-04	-0.145006D-03	0.149897D-03	-0.111421D-05	0.937798D-04
45	0.297482D-04	0.110431D-05	0.119487D-03	0.831167D-04	0.116301D-03
46	-0.623975D-03	-0.112246D-02	0.904071D-02	-0.369146D-02	-0.758075D-03
47	-0.518458D-03	0.316598D-04	-0.212629D-03	0.112007D-03	-0.172730D-02
48	-0.701767D-03	0.383109D-04	0.421769D-03	-0.759472D-04	-0.135353D-02
49	-0.626562D-03	-0.346718D-03	-0.224346D-03	-0.343747D-04	-0.330847D-03
50	-0.673569D-03	-0.181429D-03	0.312368D-03	-0.192423D-03	-0.118723D-02
51	-0.961300D-03	-0.228543D-03	0.103257D-03	-0.189422D-03	-0.121960D-02
52	-0.821913D-03	0.110494D-03	-0.765420D-03	-0.423840D-03	-0.204767D-02
53	-0.464931D-03	-0.214386D-03	-0.484131D-03	0.241897D-03	-0.127227D-02
54	-0.256902D-03	-0.519099D-04	-0.965817D-04	0.256037D-03	-0.513519D-03
55	-0.361107D-03	0.176154D-03	0.842820D-03	-0.563646D-03	0.119319D-03
56	-0.102445D-02	-0.352960D-03	0.952183D-03	0.191030D-03	-0.124993D-02
57	-0.415110D-03	-0.159155D-04	0.514519D-03	-0.707171D-03	0.158515D-03
58	-0.469021D-03	-0.267855D-03	-0.155920D-03	0.308839D-03	-0.835188D-03
59	-0.135284D-01	0.117376D-01	-0.338684D-01	-0.612358D-02	-0.122955D-01
60	0.730175D-05	0.134739D-04	0.693792D-05	0.199499D-04	-0.254850D-05
61	0.353344D-04	0.438003D-04	-0.829444D-05	-0.237347D-04	0.719405D-04
62	0.282865D-04	0.751765D-05	0.975397D-04	-0.745732D-06	0.698715D-04
63	0.903833D-04	0.124200D-03	0.150474D-03	-0.125339D-03	-0.796893D-04
64	-0.756156D-04	-0.292658D-04	0.614468D-04	0.177098D-04	0.266236D-04
65	0.445617D-04	-0.121924D-04	-0.104011D-03	0.246166D-04	0.255780D-04
66	-0.574841D-04	-0.358048D-04	0.234137D-04	-0.145685D-03	-0.251455D-04
67	-0.436887D-04	-0.635662D-04	-0.395449D-04	0.520702D-04	0.381639D-04
68	-0.478196D-04	0.418619D-04	0.438173D-04	0.672157D-04	-0.886906D-04
69	0.275575D-04	-0.172308D-04	-0.106349D-04	-0.306793D-04	-0.168544D-03
70	0.188748D-05	-0.969355D-05	0.355737D-04	-0.950455D-04	-0.216779D-04
71	0.324720D-04	0.468108D-04	-0.244704D-04	-0.524597D-04	0.208587D-03
72	0.302063D+00	-0.838137D-01	-0.102853D+00	-0.117773D+00	0.303193D+00
73	0.269568D-03	0.892498D-04	-0.252268D-03	-0.109663D-03	0.228136D-03

74	-0.839139D-04	-0.174697D-03	-0.264984D-03	0.130584D-03	0.111494D-03
75	0.328911D-03	0.223413D-03	-0.117607D-02	-0.809735D-03	-0.380282D-03
76	-0.616991D-04	0.211388D-03	-0.154425D-03	0.104604D-03	0.683246D-03
77	0.124001D-04	-0.673562D-05	0.182910D-04	-0.116001D-05	0.224946D-04
78	-0.140355D-04	0.164940D-05	-0.939703D-05	0.358217D-04	-0.601171D-05
79	0.720890D-04	0.659802D-04	-0.903461D-05	-0.216488D-04	0.850946D-04
80	-0.271149D-04	-0.745330D-05	-0.633169D-05	0.107002D-04	0.419538D-04
81	0.125679D-04	0.434732D-04	-0.703799D-04	-0.516958D-04	0.316196D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	6	7	8	9	10
6	0.915308D-03				
7	-0.275858D-04	0.272574D-02			
8	0.837245D-04	-0.616028D-03	0.912266D-02		
9	0.327363D-04	0.900820D-04	0.426887D-03	0.165078D-02	
10	-0.569858D-04	-0.569915D-04	-0.236053D-03	0.295242D-03	0.365882D-02
11	0.401863D-04	-0.253231D-03	-0.303364D-03	0.632543D-04	-0.470951D-03
12	0.585336D-04	-0.838296D-04	-0.109561D-04	-0.146347D-03	0.386136D-03
13	0.121015D-04	0.148470D-04	-0.369911D-04	-0.288706D-04	0.189387D-04
14	0.203005D-06	-0.235418D-04	-0.931465D-05	-0.204569D-04	0.144988D-04
15	0.117403D-04	0.254164D-04	-0.307555D-04	-0.169954D-04	-0.270576D-04
16	0.578999D-06	-0.430433D-04	0.101254D-03	-0.308032D-05	0.455543D-05
17	0.729344D-06	0.396825D-06	-0.252271D-04	0.550363D-04	-0.293791D-05
18	-0.360784D-04	0.608130D-04	-0.906660D-04	-0.201899D-04	0.114375D-03
19	0.216944D-04	-0.876966D-05	-0.386722D-04	-0.141591D-04	-0.267742D-05
20	0.111209D-05	0.728463D-05	-0.101406D-04	-0.115276D-04	-0.252171D-04
21	0.383894D-04	0.397576D-04	-0.381596D-04	0.380801D-04	-0.179830D-04
22	-0.818729D-05	-0.399269D-04	0.985539D-04	-0.438884D-05	-0.270459D-04
23	-0.289057D-04	-0.447299D-04	-0.102027D-04	-0.214527D-04	0.235140D-04
24	-0.729211D-05	-0.788168D-05	0.247533D-04	-0.442893D-05	0.464767D-05
25	-0.134132D-04	-0.390534D-04	0.119370D-04	0.441055D-04	-0.239249D-04
26	0.111367D-04	0.394225D-04	0.638770D-04	-0.151036D-04	-0.184674D-04
27	0.207016D-04	-0.505983D-04	0.126690D-05	-0.346215D-04	0.149725D-03
28	-0.192300D-04	0.326757D-04	-0.105428D-04	-0.753591D-05	-0.195706D-04
29	-0.180090D-04	-0.870137D-05	0.346170D-04	0.164166D-04	0.362619D-04
30	0.934318D-05	0.412630D-04	-0.527677D-04	-0.359984D-04	-0.102334D-03
31	-0.268282D-04	-0.198596D-05	0.289111D-04	0.334555D-05	0.466276D-04
32	-0.408783D-04	0.167769D-04	0.631414D-04	0.346782D-04	-0.512258D-04
33	0.218517D-04	-0.607028D-04	-0.460676D-04	0.384113D-04	0.482898D-04
34	-0.102866D-03	0.608630D-05	-0.162212D-03	-0.489509D-04	0.116033D-03
35	-0.437805D-04	-0.201498D-04	-0.317098D-04	0.186773D-03	0.109423D-03
36	-0.131609D-03	0.113127D-03	-0.149496D-03	0.215950D-03	0.335542D-03

37	-0.491410D-04	0.319199D-04	-0.217280D-03	0.266645D-03	0.421293D-04
38	-0.115548D-03	0.113599D-03	0.147090D-03	0.114354D-03	0.283810D-03
39	-0.583601D-04	0.192042D-03	-0.130640D-03	0.209467D-03	0.156742D-03
40	-0.292716D-03	-0.698628D-04	0.203416D-03	0.389339D-03	0.489221D-03
41	-0.500299D-04	-0.477692D-04	-0.167541D-03	0.186406D-03	0.318676D-03
42	-0.907949D-04	-0.128719D-03	0.413833D-03	0.149006D-03	-0.368929D-04
43	-0.152692D-03	-0.154998D-03	-0.149693D-03	0.292038D-03	0.338176D-03
44	-0.109766D-03	-0.111045D-03	-0.391296D-03	0.854207D-04	0.304915D-03
45	-0.237556D-03	0.681338D-04	-0.336600D-03	0.152159D-03	0.291698D-03
46	0.169234D-02	0.332360D-02	-0.214722D-01	0.564146D-02	0.136750D-01
47	0.295377D-03	0.266725D-04	-0.391022D-02	-0.151845D-02	0.734288D-04
48	0.203277D-03	0.295163D-03	-0.349745D-02	-0.132761D-02	0.805548D-03
49	-0.906113D-04	-0.975473D-03	0.124763D-04	-0.117823D-03	-0.150289D-03
50	-0.148421D-03	-0.759736D-03	-0.298960D-02	-0.135625D-02	-0.809043D-04
51	0.908163D-04	-0.807305D-03	-0.410977D-02	-0.153929D-02	0.771042D-03
52	0.885391D-03	0.100540D-02	-0.205362D-02	-0.128510D-02	0.207070D-02
53	0.410692D-04	0.756941D-04	-0.216631D-02	-0.127632D-02	0.360197D-03
54	-0.629934D-04	-0.377475D-03	-0.805582D-03	-0.135129D-02	-0.154498D-02
55	-0.776534D-03	0.680734D-05	-0.806204D-03	-0.245688D-02	0.190061D-02
56	-0.407766D-03	0.168403D-02	-0.120340D-02	-0.150600D-02	0.731725D-03
57	-0.700475D-03	0.247386D-03	-0.405367D-02	-0.255859D-02	0.624804D-03
58	0.447434D-03	-0.530206D-03	-0.195370D-02	-0.844398D-03	-0.675074D-05
59	-0.328993D-01	-0.528460D-01	0.150405D-01	-0.518954D-01	0.939975D-01
60	-0.451331D-04	-0.847822D-04	0.650249D-04	-0.126647D-03	-0.602148D-04
61	-0.280944D-04	0.272318D-03	0.137032D-03	0.790861D-04	-0.404291D-04
62	-0.122658D-03	0.228208D-04	0.123888D-03	-0.555151D-04	-0.124636D-03
63	-0.362854D-04	-0.250290D-03	-0.251719D-03	-0.202129D-03	-0.270832D-03
64	-0.695744D-04	-0.721105D-04	-0.744432D-04	-0.204885D-03	0.409725D-04
65	-0.383800D-04	0.721578D-04	0.417693D-04	0.670432D-04	-0.790740D-04
66	0.493969D-04	0.300613D-03	0.135677D-03	-0.423662D-03	0.219026D-04
67	-0.189506D-03	-0.900571D-04	-0.761094D-03	-0.226091D-03	0.469388D-03
68	0.876327D-04	-0.995174D-04	0.868067D-04	-0.114150D-03	-0.473194D-04
69	0.173617D-04	-0.453589D-04	-0.191152D-03	0.608137D-05	-0.466295D-04
70	0.281635D-04	-0.784349D-04	0.303821D-03	-0.706221D-04	-0.195202D-04
71	-0.134611D-03	0.532453D-04	0.267136D-03	0.360544D-04	0.145350D-03
72	-0.418441D+00	0.163302D+00	0.198093D+00	0.465839D+00	0.612987D+00
73	0.302616D-03	0.245891D-03	0.179884D-03	-0.397614D-03	-0.118988D-02
74	-0.148771D-03	0.285828D-03	-0.145168D-03	-0.143558D-04	0.257632D-03
75	0.103210D-02	0.571416D-03	-0.319275D-02	-0.154316D-02	-0.710230D-03
76	-0.499646D-03	-0.667936D-03	-0.161715D-03	-0.486673D-03	0.823936D-03
77	-0.999121D-05	0.107120D-04	0.125918D-04	0.381792D-04	-0.150536D-04
78	0.425054D-04	-0.423867D-05	-0.487291D-04	0.607655D-04	-0.603098D-04
79	0.847381D-04	-0.195291D-03	0.224571D-03	0.905874D-04	-0.651280D-04
80	-0.254034D-04	0.298177D-04	0.174866D-03	0.192768D-04	-0.476094D-04

81 -0.310822D-04 -0.275517D-03 -0.144371D-02 -0.135642D-03 -0.529630D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	0.173121D-02				
12	0.359389D-03	0.194970D-02			
13	-0.447316D-04	0.454544D-04	0.918954D-03		
14	-0.102883D-04	-0.118711D-04	0.125943D-03	0.195774D-03	
15	-0.437216D-05	-0.202172D-04	0.219772D-04	0.478670D-04	0.172902D-03
16	-0.369151D-05	-0.371936D-04	-0.970326D-04	-0.647046D-04	-0.164228D-04
17	0.296945D-04	0.169252D-05	-0.655273D-05	-0.363600D-04	-0.505234D-04
18	-0.452399D-04	-0.444841D-04	0.125458D-04	0.721237D-05	-0.822697D-05
19	0.140488D-04	0.749063D-04	0.545656D-04	0.387532D-04	0.811889D-05
20	-0.208982D-04	0.451852D-05	0.131022D-04	0.149502D-04	0.434853D-04
21	0.325335D-04	0.987777D-05	-0.102961D-04	0.102693D-04	0.582707D-05
22	0.172916D-04	-0.882759D-06	0.536845D-04	0.246172D-05	0.166011D-04
23	0.379193D-04	0.200941D-04	0.123813D-03	0.516050D-04	0.208272D-04
24	0.351007D-05	-0.144659D-04	-0.678320D-05	0.323460D-04	0.458235D-04
25	0.753234D-04	0.380404D-04	-0.428128D-05	0.331738D-04	-0.250422D-05
26	-0.373846D-04	-0.143427D-04	0.327975D-04	0.112066D-04	0.825768D-05
27	-0.157903D-04	0.210360D-04	0.334498D-04	0.571716D-05	0.712982D-05
28	0.870587D-05	-0.205025D-05	-0.398403D-04	-0.425778D-04	-0.179494D-04
29	0.101896D-04	0.535483D-04	-0.935465D-05	-0.119318D-04	-0.486921D-04
30	-0.444854D-04	-0.621421D-04	-0.355881D-04	-0.210844D-04	0.915215D-05
31	-0.167935D-04	-0.249899D-05	-0.380566D-04	0.622702D-05	-0.857550D-05
32	-0.603554D-05	-0.245499D-04	-0.547116D-05	-0.655927D-06	-0.637970D-05
33	0.212677D-04	-0.376464D-04	0.551073D-04	0.372701D-04	0.446655D-04
34	-0.673732D-05	0.466633D-04	-0.313158D-04	-0.114121D-04	-0.717420D-05
35	0.571410D-04	-0.840919D-04	0.644320D-04	-0.332445D-05	-0.219891D-04
36	-0.134634D-03	-0.109215D-03	0.302405D-04	0.225992D-04	-0.422394D-04
37	-0.122833D-03	-0.254925D-03	-0.660402D-06	0.183535D-04	-0.171812D-04
38	0.358039D-05	0.157102D-05	-0.988740D-04	0.287307D-04	-0.580029D-04
39	-0.639600D-04	-0.634444D-04	-0.448834D-04	0.947413D-05	-0.570519D-04
40	0.358196D-04	-0.382951D-04	0.435050D-04	-0.811155D-05	-0.162859D-04
41	0.225056D-04	0.773426D-04	-0.163605D-03	-0.481689D-04	-0.201311D-04
42	0.110691D-03	-0.268182D-04	0.154815D-03	-0.964405D-05	-0.309628D-04
43	0.299635D-04	-0.118618D-03	0.486438D-04	-0.104347D-05	-0.756588D-04
44	-0.389904D-04	0.172915D-03	-0.156269D-04	-0.815205D-05	-0.801960D-04
45	0.702376D-04	0.557157D-05	0.802906D-04	0.408021D-04	-0.203500D-04
46	0.165243D-02	-0.914375D-03	0.212364D-02	-0.645884D-03	-0.335898D-02
47	0.345008D-03	-0.102918D-02	-0.135212D-03	0.734423D-04	0.801683D-04
48	0.116965D-03	-0.119980D-02	0.782243D-03	0.532117D-03	0.132554D-03

49	-0.297650D-03	-0.190348D-03	0.309977D-03	0.436261D-03	0.170623D-03
50	-0.241955D-03	-0.740967D-03	0.172632D-03	0.169653D-03	-0.187092D-03
51	0.280360D-04	-0.938489D-03	0.421600D-03	0.128773D-04	-0.154897D-03
52	0.412779D-03	0.278986D-03	-0.130139D-03	0.191098D-03	-0.582484D-04
53	-0.244002D-03	-0.293041D-03	0.268909D-03	0.147347D-03	0.124659D-04
54	0.427629D-03	-0.601367D-03	-0.249270D-03	0.770693D-04	0.120765D-03
55	-0.335967D-04	-0.704557D-03	-0.827878D-04	-0.380465D-04	0.115440D-03
56	0.631517D-03	-0.144135D-02	-0.440243D-03	0.312259D-03	-0.252457D-03
57	0.106543D-02	-0.410786D-03	0.524753D-03	0.174988D-03	0.232369D-03
58	0.126572D-02	-0.614811D-04	0.596250D-03	0.107022D-03	-0.123557D-03
59	0.235581D-02	0.338274D-01	-0.736857D-02	-0.698583D-02	-0.765299D-02
60	0.323924D-04	0.202153D-04	-0.468903D-05	0.611839D-05	-0.152390D-04
61	0.196202D-04	0.266179D-03	-0.191287D-04	-0.173325D-04	-0.747854D-04
62	-0.139854D-03	0.580230D-04	0.262770D-04	0.231451D-04	0.657956D-05
63	0.178727D-03	-0.136203D-03	0.170022D-03	-0.605124D-04	-0.484689D-04
64	0.386631D-04	0.941951D-04	-0.115987D-03	0.130701D-04	0.330663D-04
65	-0.100621D-03	0.879955D-04	-0.364339D-04	0.100619D-04	0.246624D-04
66	-0.843536D-04	-0.119073D-03	-0.875122D-04	0.234820D-05	-0.113971D-04
67	-0.231634D-03	0.459984D-04	-0.468176D-04	0.125647D-04	-0.782843D-04
68	-0.170557D-03	0.105004D-03	0.175008D-04	0.812909D-04	-0.231563D-04
69	0.897902D-04	-0.377375D-04	0.811968D-04	-0.387072D-04	-0.251212D-04
70	0.178930D-03	0.102043D-03	0.316139D-04	-0.272347D-04	0.606421D-07
71	-0.246067D-03	0.189744D-03	-0.147462D-03	0.621598D-04	0.986833D-05
72	0.226950D+00	0.633883D+00	-0.191056D+00	-0.334124D-01	0.342776D-01
73	-0.227361D-03	0.710337D-03	0.169149D-03	-0.161343D-03	0.431730D-03
74	0.239146D-03	-0.231371D-03	0.169577D-04	-0.885492D-04	-0.312507D-04
75	0.177067D-02	-0.174364D-03	0.108902D-02	0.614836D-03	0.387210D-03
76	0.605255D-03	0.117642D-02	0.315489D-03	-0.171149D-03	0.619081D-04
77	-0.490425D-05	0.188020D-04	-0.107655D-05	-0.710854D-05	0.607655D-05
78	-0.175905D-04	-0.378220D-04	-0.341106D-04	0.140221D-05	0.643428D-06
79	-0.935920D-04	0.472614D-04	-0.879587D-04	-0.780141D-05	0.320190D-04
80	0.610827D-04	0.448875D-04	-0.150016D-04	-0.473747D-05	0.162471D-05
81	0.593953D-04	0.746861D-04	0.106160D-03	0.556106D-04	-0.535775D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	0.751127D-03				
17	0.119894D-03	0.340046D-03			
18	-0.155570D-03	-0.217181D-03	0.247327D-02		
19	-0.914107D-04	-0.170568D-04	0.456349D-04	0.375944D-03	
20	-0.123534D-04	-0.412150D-04	0.516659D-04	0.546558D-04	0.173676D-03
21	0.621576D-04	0.852398D-04	-0.341741D-03	-0.688026D-04	-0.534519D-04

22	-0.160038D-05	0.787187D-07	0.458324D-04	0.511293D-04	0.875054D-04
23	-0.125616D-03	-0.415081D-04	0.163231D-04	0.117885D-03	0.190984D-04
24	-0.490365D-04	-0.608362D-04	0.209965D-04	0.138552D-04	0.555469D-04
25	0.103421D-03	0.927172D-04	-0.502113D-03	-0.321270D-04	-0.311406D-04
26	-0.568678D-04	-0.204152D-04	0.615180D-04	0.770389D-04	0.438877D-04
27	-0.554118D-04	-0.762127D-04	0.113794D-03	0.576630D-04	0.212103D-04
28	0.762767D-04	0.188836D-04	-0.969475D-05	-0.937504D-04	-0.209145D-04
29	0.164050D-04	0.501804D-04	-0.394681D-04	-0.262353D-04	-0.658378D-04
30	-0.604592D-04	-0.967834D-04	0.380381D-03	0.119466D-05	0.301003D-04
31	0.203529D-04	0.168046D-04	-0.637594D-04	-0.266156D-04	-0.571838D-04
32	0.324008D-04	0.301193D-04	-0.122346D-03	-0.122922D-04	-0.365062D-04
33	-0.132450D-04	-0.184268D-04	0.122831D-03	0.203433D-04	0.406069D-04
34	-0.787875D-05	-0.290168D-05	0.115565D-04	0.184069D-04	0.238170D-04
35	0.296265D-05	0.126411D-04	0.345938D-04	-0.149141D-04	0.554404D-04
36	0.549763D-04	0.637532D-04	0.673910D-04	-0.732012D-04	0.147931D-05
37	0.121126D-03	0.643285D-04	-0.927760D-05	0.132401D-04	-0.212151D-04
38	-0.633105D-04	-0.376406D-04	-0.567811D-04	-0.727627D-04	0.325788D-04
39	0.923037D-04	0.691845D-04	-0.745525D-04	-0.348072D-04	0.441491D-04
40	-0.439221D-04	0.132004D-03	-0.923700D-04	-0.105069D-03	-0.473005D-04
41	0.103924D-03	0.164890D-04	0.715563D-04	-0.425887D-04	0.566255D-04
42	0.571902D-05	0.652070D-04	-0.189636D-04	0.129037D-05	-0.355241D-04
43	0.482046D-04	0.396026D-04	0.186299D-03	-0.420818D-04	-0.319579D-04
44	0.605673D-04	0.909556D-04	0.289223D-04	-0.104633D-03	-0.678902D-05
45	0.466222D-04	0.365490D-04	0.235984D-04	-0.910695D-04	-0.508606D-04
46	-0.252095D-02	0.232855D-03	-0.362169D-02	0.417341D-03	0.173523D-02
47	0.169600D-03	0.208492D-03	0.216772D-02	-0.986424D-04	-0.430622D-04
48	-0.225299D-03	-0.545780D-04	0.247031D-02	0.453590D-03	0.502539D-04
49	-0.333236D-03	0.388997D-04	0.984791D-03	0.207676D-03	-0.135218D-03
50	-0.196023D-03	0.267211D-03	0.103703D-02	-0.174272D-05	-0.120456D-03
51	-0.169411D-03	0.355441D-03	0.192336D-02	0.147009D-03	-0.395810D-04
52	-0.464103D-03	0.387970D-04	0.566385D-03	-0.619020D-04	-0.499806D-03
53	-0.219755D-03	-0.386768D-04	0.128659D-02	0.256116D-03	0.217460D-03
54	0.884597D-03	-0.222880D-03	0.162130D-02	0.138559D-03	-0.121026D-03
55	-0.669278D-03	-0.358662D-03	0.304317D-02	-0.284047D-03	0.189606D-03
56	-0.327872D-03	0.280227D-04	0.733843D-03	0.198894D-03	0.325701D-04
57	-0.134145D-02	-0.816792D-03	0.366624D-02	-0.174730D-03	0.478882D-03
58	0.298635D-03	0.331127D-03	-0.124788D-03	0.471189D-03	-0.636924D-04
59	-0.731856D-03	-0.193673D-01	0.448023D-01	-0.432724D-02	0.550718D-02
60	0.199505D-04	-0.867303D-06	-0.590833D-05	0.269486D-04	0.267520D-04
61	-0.560625D-04	-0.770571D-05	0.835910D-05	0.523696D-04	-0.431581D-04
62	-0.674105D-05	-0.634362D-04	0.664690D-04	-0.190364D-04	0.233165D-04
63	-0.319587D-03	-0.106477D-03	-0.176121D-03	-0.555488D-04	-0.141981D-03
64	0.831207D-04	0.119497D-05	0.664498D-04	0.348033D-04	-0.134382D-04
65	0.552111D-05	-0.428240D-04	0.101508D-03	-0.631662D-05	0.552150D-04



66	-0.402671D-04	-0.723658D-04	0.226381D-04	-0.150346D-04	-0.413386D-04
67	0.313987D-04	0.112775D-03	0.200577D-03	-0.155891D-04	0.770293D-04
68	-0.900081D-04	-0.408163D-04	-0.311868D-03	-0.807946D-04	-0.670849D-04
69	-0.600184D-04	-0.893980D-05	-0.401189D-04	0.259892D-04	-0.315495D-04
70	-0.124499D-04	-0.523038D-05	-0.257877D-04	-0.695275D-04	-0.276443D-04
71	0.170061D-05	-0.783751D-04	0.198913D-04	-0.282131D-04	0.146740D-05
72	0.244524D+00	0.128449D+00	0.305290D+00	0.151031D+00	-0.107068D+00
73	-0.111589D-03	-0.420218D-03	-0.520147D-03	0.134618D-03	0.832646D-04
74	0.146220D-03	-0.755481D-04	0.145156D-03	-0.538015D-04	0.864347D-05
75	0.271250D-03	0.313258D-03	-0.243409D-02	-0.793772D-03	-0.365951D-03
76	-0.280381D-03	-0.567674D-03	0.838254D-03	-0.306724D-03	0.357267D-03
77	-0.925030D-06	0.527484D-06	-0.636460D-04	0.490182D-06	0.435496D-05
78	0.169574D-04	0.691279D-05	-0.391330D-04	0.208139D-04	-0.106026D-04
79	-0.666773D-04	-0.285953D-04	0.103324D-03	-0.254727D-04	0.443764D-04
80	0.139754D-04	-0.178226D-04	0.461622D-04	-0.606650D-05	0.847822D-05
81	-0.577141D-04	-0.421378D-04	0.191463D-03	-0.537121D-04	0.243821D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	0.680120D-03				
22	-0.142863D-03	0.679024D-03			
23	-0.410391D-04	0.231471D-04	0.789426D-03		
24	-0.171618D-04	0.247107D-04	0.120689D-03	0.332711D-03	
25	0.243144D-03	-0.891452D-04	-0.111881D-03	-0.117552D-03	0.138485D-02
26	-0.110832D-03	0.213119D-03	0.594360D-04	0.851189D-04	-0.185169D-03
27	-0.650833D-04	0.130140D-03	0.259104D-03	0.113653D-03	-0.420199D-03
28	0.216003D-04	-0.228383D-04	-0.162265D-03	-0.225845D-04	0.544802D-04
29	0.218338D-04	-0.370342D-04	-0.403208D-04	-0.829470D-04	0.377504D-04
30	-0.233092D-03	0.565483D-04	0.249364D-04	0.243532D-04	-0.358205D-03
31	0.104321D-03	-0.198198D-03	-0.109391D-04	-0.275866D-04	0.103209D-03
32	0.671994D-04	-0.777370D-04	-0.113544D-03	-0.922773D-04	0.263766D-03
33	-0.698500D-04	0.822363D-04	0.912027D-04	0.315984D-04	-0.840673D-04
34	0.210571D-04	0.238830D-04	0.229934D-04	0.693577D-04	-0.191200D-04
35	-0.435091D-04	0.120668D-03	0.508303D-04	0.140483D-03	-0.149570D-03
36	0.609488D-05	0.461935D-04	0.830757D-04	0.124816D-03	-0.442877D-04
37	-0.122608D-04	-0.244057D-04	0.722827D-04	0.687876D-04	0.178601D-03
38	-0.336747D-04	-0.113101D-03	0.200542D-03	0.198320D-03	-0.113584D-03
39	-0.277004D-04	-0.552074D-04	0.126487D-03	0.914167D-04	-0.518640D-04
40	-0.522744D-04	-0.237377D-04	0.165452D-03	0.125264D-03	-0.169001D-03
41	0.587007D-04	-0.121448D-03	0.603137D-04	0.628420D-04	0.145476D-04
42	-0.888293D-04	-0.584834D-04	0.167542D-03	0.653506D-04	-0.134041D-03
43	-0.306905D-04	0.230776D-05	0.171927D-04	0.266152D-04	0.488967D-04

44	0.655457D-04	-0.728080D-04	0.126016D-03	0.143397D-03	-0.134130D-04
45	0.160469D-04	-0.161838D-04	0.492859D-04	0.789566D-04	-0.177438D-04
46	-0.284000D-03	0.291177D-02	0.395468D-02	0.218961D-02	-0.667059D-02
47	-0.929905D-03	-0.325379D-03	0.838655D-04	-0.191233D-03	-0.645474D-03
48	-0.116118D-02	0.988832D-04	0.676502D-03	0.743353D-04	-0.513143D-03
49	-0.397829D-03	-0.485124D-03	-0.423538D-03	-0.417279D-03	0.486398D-03
50	-0.378061D-03	-0.645153D-03	0.181520D-03	0.780300D-04	-0.438284D-03
51	-0.555362D-03	-0.381790D-03	0.944186D-03	0.409424D-04	-0.706033D-03
52	-0.322046D-03	-0.503441D-03	0.760632D-03	-0.770935D-04	-0.122828D-03
53	-0.707656D-03	-0.292011D-03	0.649858D-03	-0.315334D-03	0.204191D-03
54	-0.168404D-03	0.511652D-04	-0.325154D-04	0.755797D-04	0.607708D-03
55	-0.119042D-02	-0.290731D-04	0.488703D-03	0.374097D-03	-0.165273D-02
56	-0.613710D-03	-0.290118D-03	0.564952D-03	0.165893D-03	-0.794984D-03
57	-0.100565D-02	0.313773D-03	0.103590D-02	0.811555D-03	-0.210840D-02
58	-0.177862D-03	-0.106512D-03	0.494947D-03	-0.439760D-04	0.517378D-03
59	0.338811D-02	0.820612D-02	-0.400809D-01	-0.144799D-01	0.147549D-01
60	0.273850D-05	0.294313D-04	-0.293537D-04	-0.349388D-04	-0.559444D-05
61	0.109496D-05	-0.242053D-04	-0.124025D-03	-0.594737D-04	0.311359D-04
62	-0.340580D-04	0.393304D-04	0.756444D-04	0.696181D-04	-0.548249D-04
63	-0.892828D-04	-0.137098D-03	-0.557505D-04	-0.151692D-03	-0.110073D-03
64	-0.435710D-04	-0.389966D-04	-0.176705D-04	-0.140834D-04	0.154340D-03
65	-0.596098D-04	-0.286516D-06	0.401084D-04	-0.123606D-04	-0.461604D-04
66	-0.114450D-03	0.382863D-04	-0.685080D-04	-0.119729D-03	0.693623D-04
67	0.854520D-04	-0.363334D-04	0.149111D-03	0.731659D-04	-0.132203D-03
68	0.188623D-03	0.158009D-04	0.365189D-04	-0.131161D-04	0.276440D-03
69	-0.943157D-04	0.449185D-04	0.604234D-04	0.101236D-04	0.713355D-04
70	0.248472D-04	0.525350D-04	-0.788298D-04	-0.621382D-04	-0.134210D-03
71	0.815786D-04	0.413585D-04	-0.424155D-04	-0.321959D-04	-0.116137D-03
72	-0.179159D+00	-0.534328D-01	-0.604376D+00	-0.102521D+00	-0.219736D+00
73	-0.156577D-04	-0.205945D-03	-0.108675D-04	-0.285579D-03	-0.235468D-03
74	-0.111114D-03	0.580943D-05	0.780274D-04	-0.125389D-03	0.140772D-03
75	0.169621D-02	-0.527913D-03	0.983919D-03	-0.123640D-03	-0.108639D-02
76	-0.637986D-03	0.773179D-03	-0.844761D-03	0.217978D-03	-0.747749D-03
77	-0.200638D-05	-0.306747D-05	-0.965994D-05	-0.421673D-06	0.295643D-04
78	0.222594D-04	-0.310645D-04	-0.354207D-04	-0.361550D-04	0.676393D-04
79	-0.542620D-05	-0.273393D-04	-0.420288D-04	0.945775D-05	-0.806978D-04
80	-0.146834D-04	-0.374414D-04	-0.824173D-05	0.605918D-05	0.556876D-05
81	0.614198D-05	0.484932D-04	0.654062D-04	0.554690D-04	-0.158297D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	0.622947D-03	_____	_____	_____	_____

27 0.417930D-03 0.238554D-02  
 28 -0.327927D-04 -0.455331D-04 0.632355D-03  
 29 -0.481945D-04 -0.286811D-04 0.112096D-03 0.307154D-03  
 30 0.490182D-04 0.578901D-04 -0.854588D-04 -0.948063D-04 0.116521D-02  
 31 -0.198077D-03 -0.136946D-03 0.353499D-04 0.867290D-04 -0.148774D-03  
 32 -0.259267D-03 -0.644800D-03 0.123123D-03 0.762279D-04 -0.178739D-03  
 33 0.923243D-04 0.856102D-04 -0.114809D-03 -0.135682D-03 0.275211D-03  
 34 0.115344D-04 -0.334012D-04 0.643017D-04 -0.403756D-04 -0.216880D-04  
 35 0.168374D-03 0.166136D-03 0.111840D-03 0.170268D-04 -0.108137D-03  
 36 0.566468D-04 -0.838759D-04 0.466834D-04 -0.198437D-04 -0.199673D-03  
 37 -0.271955D-04 -0.430834D-04 -0.676457D-04 -0.320142D-05 -0.228671D-03  
 38 0.863041D-04 0.144176D-03 0.234086D-04 0.534481D-04 -0.253736D-03  
 39 0.140115D-03 0.650792D-04 0.149847D-04 0.732393D-04 -0.236422D-03  
 40 0.916495D-04 -0.727361D-04 0.141821D-04 0.455041D-04 -0.126611D-03  
 41 -0.432985D-04 -0.123214D-03 0.443905D-04 -0.649459D-05 -0.283327D-03  
 42 0.916874D-04 -0.807198D-04 -0.309696D-04 -0.365601D-04 -0.227347D-03  
 43 0.659789D-04 -0.242716D-05 0.947694D-04 0.286800D-04 -0.304366D-03  
 44 0.112223D-03 0.796319D-05 -0.821367D-05 -0.205777D-04 -0.205478D-03  
 45 0.354432D-04 -0.503583D-04 0.169714D-03 0.659387D-04 -0.214482D-03  
 46 0.883611D-03 -0.647332D-02 -0.301591D-03 -0.100539D-02 -0.243579D-02  
 47 -0.385585D-03 -0.115536D-02 0.468518D-03 -0.300813D-03 0.148734D-03  
 48 -0.187523D-03 0.185285D-04 -0.292058D-03 -0.181774D-03 0.682642D-04  
 49 -0.282358D-03 -0.934766D-03 -0.663357D-05 0.298449D-04 0.835312D-03  
 50 -0.203814D-03 -0.167817D-04 -0.982060D-04 0.475759D-04 -0.359761D-03  
 51 -0.737699D-03 -0.989880D-03 -0.261146D-04 -0.189878D-03 0.953197D-04  
 52 -0.387533D-04 0.537376D-03 -0.409921D-03 -0.329685D-04 -0.666528D-03  
 53 -0.322781D-03 -0.624272D-03 0.196473D-03 0.987733D-04 0.120226D-02  
 54 -0.194251D-04 -0.528076D-03 -0.508565D-03 -0.499623D-03 -0.294335D-03  
 55 0.258141D-03 0.880526D-04 -0.464702D-03 0.845770D-04 0.218673D-03  
 56 -0.574980D-04 -0.706476D-03 -0.383944D-03 -0.290042D-04 0.630587D-03  
 57 0.247777D-03 0.144111D-02 -0.388555D-03 -0.253584D-03 0.385328D-03  
 58 0.333085D-03 -0.103181D-03 0.641867D-03 0.281638D-04 -0.225870D-03  
 59 -0.146999D-01 -0.200437D-01 0.412069D-01 0.146451D-01 0.616957D-04  
 60 0.247854D-04 0.103691D-03 0.725111D-04 0.377743D-05 -0.380998D-04  
 61 -0.220998D-04 0.456105D-05 -0.819926D-04 0.915423D-04 -0.269765D-04  
 62 -0.667029D-04 -0.108837D-03 -0.125677D-04 0.521711D-04 0.558937D-04  
 63 0.831558D-04 -0.126146D-03 -0.116892D-03 0.119328D-03 0.221960D-03  
 64 0.177092D-04 0.113842D-03 0.659515D-04 -0.530523D-04 0.185109D-04  
 65 0.135778D-03 0.104147D-03 -0.592097D-04 -0.800771D-04 0.959914D-04  
 66 -0.112561D-04 0.619129D-04 0.150301D-04 0.680935D-04 0.193096D-03  
 67 -0.267358D-04 -0.236543D-04 -0.266430D-03 -0.322757D-04 -0.212406D-03  
 68 0.207584D-04 0.127195D-03 0.181080D-04 -0.131674D-04 -0.212930D-03  
 69 0.853054D-04 0.866857D-04 0.467598D-04 -0.630030D-04 0.864469D-04  
 70 0.261105D-06 0.487837D-04 -0.345566D-04 0.616259D-04 -0.168134D-03

71	-0.104030D-03	-0.129259D-03	-0.146099D-03	-0.212125D-04	-0.375999D-04
72	-0.517180D-02	-0.911375D+00	-0.372268D-01	-0.688840D-01	0.281558D-02
73	0.673860D-04	0.289623D-03	-0.443000D-03	-0.180203D-03	0.525127D-03
74	0.132468D-03	-0.107890D-04	0.187772D-03	0.191928D-04	0.107606D-03
75	0.459774D-03	-0.725931D-03	-0.829088D-04	0.565404D-04	-0.499518D-03
76	0.539904D-04	-0.747211D-03	0.373467D-03	0.923864D-04	0.592168D-03
77	0.183698D-04	-0.819727D-05	-0.739316D-05	0.380777D-05	0.122344D-04
78	-0.130674D-04	-0.573667D-04	0.583747D-05	0.146884D-05	0.110276D-04
79	-0.940353D-04	-0.107334D-03	-0.228796D-04	0.314056D-04	0.531960D-04
80	-0.909870D-05	-0.359513D-04	0.185480D-04	0.134526D-04	0.820894D-05
81	-0.648586D-04	-0.163335D-03	-0.777052D-05	0.133192D-04	-0.187140D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	0.598327D-03				
32	0.232108D-03	0.117520D-02			
33	-0.280816D-03	-0.472175D-03	0.197095D-02		
34	0.788326D-04	0.628058D-04	-0.503246D-04	0.574773D-02	
35	0.171674D-03	-0.100408D-04	0.849622D-05	0.393430D-02	0.202791D-01
36	0.137589D-03	0.146398D-03	0.641572D-04	0.418447D-02	0.139499D-01
37	0.124503D-03	0.555943D-04	0.405815D-04	0.276078D-02	0.890387D-02
38	0.263228D-03	-0.552884D-04	-0.396920D-04	0.398984D-02	0.123240D-01
39	0.271617D-04	0.228948D-04	-0.199677D-04	0.376751D-02	0.125544D-01
40	0.402105D-04	0.231492D-04	0.101148D-03	0.455761D-02	0.142894D-01
41	0.145339D-03	0.265381D-03	-0.166068D-03	0.313407D-02	0.108923D-01
42	0.124082D-03	-0.144743D-04	-0.123518D-03	0.249811D-02	0.683442D-02
43	0.150024D-03	0.939824D-04	-0.515517D-04	0.432732D-02	0.136868D-01
44	0.179471D-03	0.946419D-04	-0.413146D-04	0.397928D-02	0.133272D-01
45	0.182410D-03	0.774658D-04	0.534397D-05	0.360535D-02	0.113201D-01
46	0.186533D-02	0.146675D-02	-0.372000D-02	0.853769D-01	0.247922D+00
47	-0.215852D-03	-0.132866D-03	-0.215268D-03	0.864829D-04	-0.437058D-02
48	0.545437D-04	-0.148970D-03	-0.492530D-03	-0.252104D-03	-0.358147D-02
49	0.368535D-03	0.129140D-02	-0.135436D-02	0.329828D-03	-0.172640D-02
50	-0.230131D-03	0.498616D-03	-0.132610D-02	-0.521877D-03	-0.336093D-02
51	0.674354D-04	0.189206D-03	-0.977323D-04	-0.351751D-03	-0.423325D-02
52	0.194729D-03	-0.876441D-03	0.199642D-05	0.317100D-03	-0.283762D-02
53	-0.124107D-03	0.118871D-03	0.274203D-03	-0.188406D-02	-0.725994D-02
54	-0.320139D-03	-0.283828D-04	-0.594451D-03	-0.104284D-02	0.368592D-03
55	-0.288076D-03	-0.110246D-02	0.527710D-03	0.377633D-02	0.313419D-02
56	0.212320D-03	0.102228D-04	-0.125380D-02	-0.645311D-03	-0.568224D-02
57	-0.273792D-03	-0.632295D-03	-0.539936D-03	0.352678D-02	0.165822D-03
58	-0.664441D-03	-0.561340D-03	0.711859D-03	0.155223D-02	0.415702D-02

59	0.100507D-01	0.185653D-01	-0.513037D-01	-0.895566D-01	-0.240272D+00
60	0.338796D-05	0.173874D-05	0.449215D-04	0.817242D-04	-0.477199D-04
61	0.149604D-05	0.112295D-03	0.274912D-03	-0.393136D-03	-0.932654D-03
62	0.227815D-04	-0.653177D-04	0.257924D-03	0.276030D-03	0.238288D-03
63	-0.635059D-04	0.607840D-04	-0.663003D-04	0.513053D-03	0.118804D-02
64	0.680289D-04	-0.202150D-03	0.357287D-05	-0.123288D-04	0.577978D-03
65	-0.414097D-04	-0.649500D-04	0.205041D-03	0.124490D-03	0.452692D-03
66	-0.970444D-04	-0.139956D-03	-0.255164D-03	0.555229D-03	-0.213629D-03
67	0.721723D-04	-0.258182D-03	0.512222D-03	0.789321D-03	0.114376D-02
68	-0.241643D-04	-0.104342D-03	0.691152D-04	0.201636D-03	-0.689273D-03
69	0.258286D-05	-0.103044D-04	0.342453D-04	0.101018D-03	0.481226D-03
70	0.747869D-04	-0.147468D-06	-0.606518D-04	0.126742D-03	0.146143D-03
71	0.192794D-03	0.188122D-03	-0.295128D-04	-0.303297D-04	-0.972835D-03
72	-0.851796D-01	0.698808D-01	0.251740D+00	0.144225D+00	-0.185424D-01
73	-0.198970D-03	-0.395640D-03	-0.277216D-03	-0.488552D-02	-0.155954D-01
74	-0.280878D-03	-0.476745D-04	0.236906D-03	-0.619438D-04	0.179405D-02
75	-0.447732D-04	0.248652D-03	-0.604723D-03	-0.838729D-02	-0.945414D-02
76	-0.319257D-03	-0.894852D-04	0.332071D-03	0.111458D-02	-0.281152D-02
77	0.183347D-06	-0.917658D-05	-0.277635D-05	0.311721D-04	0.216565D-03
78	-0.886157D-05	0.297680D-04	-0.561289D-04	-0.149145D-03	-0.302257D-03
79	0.257197D-04	0.607792D-04	-0.315438D-04	-0.387625D-03	-0.547114D-03
80	-0.168993D-04	-0.779971D-05	0.424076D-04	-0.148856D-04	-0.850597D-04
81	0.244792D-04	-0.642561D-04	0.233819D-03	0.700600D-03	0.168867D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	0.214341D-01				
37	0.105340D-01	0.218560D-01			
38	0.142194D-01	0.877812D-02	0.208209D-01		
39	0.142445D-01	0.975640D-02	0.124239D-01	0.213840D-01	
40	0.166333D-01	0.103396D-01	0.147643D-01	0.155265D-01	0.312975D-01
41	0.121374D-01	0.869639D-02	0.111402D-01	0.111697D-01	0.130315D-01
42	0.847607D-02	0.571076D-02	0.799943D-02	0.768256D-02	0.903324D-02
43	0.156429D-01	0.104552D-01	0.137336D-01	0.139889D-01	0.168274D-01
44	0.151585D-01	0.100639D-01	0.130929D-01	0.136211D-01	0.157340D-01
45	0.128457D-01	0.864802D-02	0.111572D-01	0.114920D-01	0.141395D-01
46	0.310363D+00	0.206303D+00	0.260363D+00	0.300513D+00	0.285284D+00
47	-0.522700D-02	-0.123616D-02	-0.580811D-02	-0.537772D-02	-0.497066D-02
48	-0.590404D-02	-0.952097D-03	-0.683871D-02	-0.686495D-02	-0.611260D-02
49	-0.755608D-03	-0.650933D-03	-0.319304D-02	-0.538424D-03	0.129096D-02
50	-0.564298D-02	-0.258578D-02	-0.673742D-02	-0.293065D-02	-0.430929D-02
51	-0.679491D-02	-0.686633D-03	-0.990008D-02	-0.569629D-02	-0.469001D-02

52	-0.569355D-02	-0.188699D-02	-0.657011D-02	-0.265830D-02	-0.698631D-02
53	-0.687397D-02	-0.262544D-02	-0.897109D-02	-0.729127D-02	-0.317735D-02
54	-0.244992D-02	0.891869D-04	-0.803977D-03	-0.289304D-02	-0.120770D-02
55	-0.231550D-02	0.190758D-02	-0.259522D-02	-0.156654D-02	0.204915D-03
56	-0.762812D-02	-0.347630D-03	-0.937887D-02	-0.637641D-02	-0.717989D-02
57	-0.514495D-02	0.833672D-03	-0.326504D-03	-0.694888D-03	-0.413134D-03
58	0.436715D-02	0.426566D-02	0.648475D-03	0.296267D-02	0.552636D-02
59	-0.345371D+00	-0.218330D+00	-0.388411D+00	-0.313902D+00	-0.403725D+00
60	0.819903D-04	-0.114274D-03	0.116268D-03	-0.634421D-04	0.367910D-04
61	-0.763198D-03	-0.412175D-03	-0.490330D-03	-0.667448D-03	-0.756112D-03
62	0.177532D-03	0.200003D-03	0.477553D-04	0.463492D-03	0.446134D-03
63	0.175988D-02	0.188746D-03	0.159610D-02	0.298029D-03	0.258825D-02
64	0.476947D-03	0.782744D-03	0.541645D-03	0.505470D-03	0.106020D-02
65	0.538888D-03	0.471511D-03	0.135801D-03	0.951478D-03	0.314088D-03
66	0.112552D-03	-0.178049D-03	-0.570213D-03	0.271794D-03	-0.241373D-03
67	0.155263D-02	0.107038D-02	0.587800D-03	0.438831D-03	0.631524D-03
68	-0.242533D-03	-0.249614D-03	-0.648761D-03	-0.231562D-03	0.467487D-04
69	0.611903D-03	-0.114704D-03	0.112471D-03	0.561429D-04	0.622640D-03
70	-0.165935D-03	0.496899D-04	0.155223D-03	-0.647977D-03	0.624652D-03
71	-0.948245D-03	-0.610697D-03	-0.692814D-04	-0.652812D-03	-0.627212D-03
72	0.117886D+01	0.104327D+01	0.326413D+00	0.142864D+01	-0.838879D+00
73	-0.189601D-01	-0.134617D-01	-0.153536D-01	-0.173299D-01	-0.212286D-01
74	0.208421D-02	0.967597D-03	0.108327D-02	0.218675D-02	0.332673D-02
75	-0.104181D-01	-0.126360D-01	-0.481510D-02	-0.649434D-02	-0.420411D-02
76	-0.343821D-02	-0.138650D-02	-0.141003D-02	-0.229998D-02	-0.182760D-02
77	0.196417D-03	0.574324D-04	0.246848D-03	0.213072D-03	0.158596D-03
78	-0.204156D-03	-0.140355D-03	-0.201108D-03	-0.260913D-03	-0.270603D-03
79	-0.544046D-03	-0.517060D-03	-0.476092D-03	-0.201297D-03	-0.495756D-03
80	-0.584391D-04	0.916504D-05	-0.635187D-04	-0.903309D-04	-0.891739D-04
81	0.189820D-02	0.144556D-02	0.200416D-02	0.199365D-02	0.229929D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	41	42	43	44	45
41	0.245714D-01				
42	0.707162D-02	0.191295D-01			
43	0.122694D-01	0.833130D-02	0.228110D-01		
44	0.114892D-01	0.821994D-02	0.151552D-01	0.216703D-01	
45	0.102698D-01	0.674840D-02	0.155081D-01	0.121300D-01	0.196707D-01
46	0.245489D+00	0.147962D+00	0.325174D+00	0.292242D+00	0.247577D+00
47	-0.365055D-02	-0.390884D-02	-0.383857D-02	-0.336755D-02	-0.444649D-02
48	-0.456092D-02	-0.435122D-02	-0.543133D-02	-0.520716D-02	-0.376758D-02
49	-0.182656D-02	-0.228858D-02	0.112294D-02	-0.188977D-02	0.130206D-02

50	-0.380379D-02	-0.107571D-02	-0.349149D-02	-0.243322D-02	-0.235162D-02
51	-0.590357D-02	-0.453521D-02	-0.510978D-02	-0.356917D-02	-0.434742D-02
52	-0.629944D-02	-0.261252D-02	-0.374146D-02	-0.598646D-02	-0.242228D-02
53	-0.738895D-02	-0.704491D-02	-0.568018D-02	-0.472904D-02	-0.641309D-02
54	-0.815667D-03	-0.565141D-02	0.140200D-03	-0.476669D-03	-0.106825D-02
55	-0.304987D-02	-0.183953D-02	-0.623654D-03	-0.108440D-02	-0.149645D-02
56	-0.636871D-02	-0.519216D-02	-0.670263D-02	-0.526814D-02	-0.481927D-02
57	-0.220669D-02	-0.236903D-02	-0.108870D-02	0.386301D-02	-0.157711D-02
58	-0.544805D-03	0.383745D-02	0.302437D-02	0.934967D-03	0.442510D-02
59	-0.197018D+00	-0.415480D+00	-0.253941D+00	-0.268805D+00	-0.168864D+00
60	-0.243714D-04	0.652749D-04	0.117792D-03	0.893551D-04	0.887546D-04
61	-0.440766D-03	-0.570986D-03	-0.840812D-03	-0.943421D-03	-0.641996D-03
62	0.141237D-03	0.377362D-03	0.985595D-04	0.247659D-03	0.242863D-04
63	0.174765D-02	0.803295D-03	0.155495D-02	0.134893D-03	0.132434D-02
64	0.564364D-03	0.675121D-04	0.411520D-03	0.519634D-03	0.445514D-03
65	0.737540D-03	0.658376D-03	0.646341D-03	0.289139D-03	0.439608D-03
66	0.418090D-03	-0.708091D-03	-0.192473D-03	-0.374584D-03	-0.213643D-03
67	0.729402D-03	0.693713D-03	0.150252D-02	0.812834D-03	0.691650D-03
68	-0.721410D-03	-0.403053D-03	-0.691943D-03	-0.593632D-03	-0.134493D-03
69	0.176969D-03	0.525438D-03	0.133874D-03	0.210553D-03	0.736643D-03
70	0.236151D-03	-0.209224D-03	0.280547D-03	-0.439679D-04	0.242049D-03
71	-0.442061D-03	-0.119908D-02	-0.787817D-03	-0.185370D-03	-0.906728D-03
72	0.310554D+00	-0.757405D+00	0.214130D+01	-0.481387D+00	0.161634D+01
73	-0.161853D-01	-0.106070D-01	-0.190889D-01	-0.187907D-01	-0.169254D-01
74	-0.499910D-04	0.476680D-03	0.164696D-04	0.189916D-02	0.270584D-03
75	-0.408652D-02	-0.422711D-02	-0.116539D-01	-0.141670D-01	-0.867494D-02
76	0.312858D-03	-0.235989D-02	-0.207481D-02	-0.270284D-02	0.178121D-02
77	0.198550D-03	0.133498D-03	0.157599D-03	0.110717D-03	0.137045D-03
78	0.298588D-04	-0.192218D-03	-0.231386D-03	-0.351645D-03	-0.196957D-03
79	0.559063D-04	-0.720475D-03	-0.409521D-03	-0.248475D-03	-0.332962D-03
80	-0.187096D-03	-0.251836D-04	-0.113608D-03	-0.593432D-04	0.737997D-04
81	0.161111D-02	0.110772D-02	0.187334D-02	0.190873D-02	0.175534D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	0.331904D+02				
47	-0.194917D+00	0.499576D+00			
48	-0.995812D-01	0.353380D+00	0.559035D+00		
49	-0.152393D+00	0.215834D+00	0.272838D+00	0.596060D+00	
50	-0.124045D+00	0.285636D+00	0.367132D+00	0.219942D+00	0.558934D+00
51	-0.143422D+00	0.298854D+00	0.354184D+00	0.238004D+00	0.328393D+00
52	-0.108247D+00	0.335226D+00	0.417226D+00	0.287878D+00	0.361902D+00

53	-0.234401D+00	0.227519D+00	0.287695D+00	0.182690D+00	0.243859D+00
54	0.180814D-01	0.179081D+00	0.228380D+00	0.137218D+00	0.211730D+00
55	0.109849D+00	0.332756D+00	0.414375D+00	0.266854D+00	0.366914D+00
56	-0.281252D-01	0.331479D+00	0.398334D+00	0.254010D+00	0.331645D+00
57	0.867514D-02	0.260462D+00	0.339469D+00	0.221084D+00	0.304331D+00
58	0.281280D-01	-0.704028D-03	-0.827288D-02	-0.922844D-02	-0.244595D-01
59	-0.828930D+01	0.549740D+01	0.658001D+01	0.415082D+01	0.585648D+01
60	0.136624D-01	-0.320613D-02	-0.356819D-02	-0.345983D-02	-0.349219D-02
61	-0.129411D-02	-0.381265D-02	0.419874D-02	0.314676D-02	0.581452D-02
62	0.858920D-02	-0.312434D-02	-0.707646D-02	-0.139091D-02	-0.156385D-02
63	-0.446963D-02	-0.239437D-02	-0.515783D-02	-0.404162D-02	-0.341611D-03
64	0.653754D-02	0.171965D-02	0.157010D-02	0.232951D-02	-0.730329D-02
65	0.575098D-02	-0.599655D-03	-0.821505D-03	-0.161180D-02	-0.231329D-02
66	0.215885D-01	-0.314608D-02	-0.148606D-02	-0.407474D-02	-0.272468D-03
67	0.176873D-01	0.321448D-02	-0.107664D-02	0.142669D-02	-0.135511D-02
68	-0.507174D-01	0.370751D-02	0.762723D-03	0.393493D-02	0.276483D-02
69	-0.669377D-02	-0.203459D-03	0.184408D-02	-0.182752D-02	-0.313979D-02
70	0.279315D-02	-0.235340D-02	-0.111060D-02	0.226669D-02	0.245119D-02
71	0.267571D-02	0.590122D-02	0.632294D-02	0.493950D-02	0.858569D-02
72	0.465964D+02	0.458506D+01	0.410690D+01	0.128203D+02	0.119280D+01
73	-0.356069D+00	-0.442933D-01	-0.621366D-01	-0.446310D-01	-0.454754D-01
74	0.163129D-01	-0.668825D-02	-0.502572D-02	-0.288090D-02	-0.496133D-02
75	-0.288267D+00	-0.151900D+00	-0.193458D+00	-0.148369D+00	-0.186852D+00
76	-0.203274D-01	0.640043D-02	0.283784D-01	0.316752D-01	0.326898D-01
77	0.462239D-02	-0.688237D-02	-0.814484D-02	-0.507241D-02	-0.707379D-02
78	-0.956412D-02	-0.672286D-03	-0.116117D-02	-0.125726D-02	-0.166029D-02
79	-0.155041D-01	-0.280708D-02	-0.245367D-02	-0.296305D-02	-0.809125D-03
80	-0.741517D-02	0.419567D-03	0.340001D-03	0.116919D-02	0.668431D-03
81	0.466181D-01	0.622986D-02	0.795986D-02	0.643516D-02	0.678926D-02

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	0.518435D+00				
52	0.354219D+00	0.753443D+00			
53	0.244264D+00	0.287782D+00	0.530507D+00		
54	0.196956D+00	0.223454D+00	0.151067D+00	0.471686D+00	
55	0.358398D+00	0.391950D+00	0.257141D+00	0.205562D+00	0.882211D+00
56	0.336106D+00	0.388067D+00	0.256792D+00	0.226289D+00	0.391328D+00
57	0.319504D+00	0.298743D+00	0.215931D+00	0.177894D+00	0.699872D+00
58	-0.257003D-01	-0.126296D-01	-0.107525D-01	-0.700794D-02	-0.472951D-01
59	0.619982D+01	0.693357D+01	0.485187D+01	0.404162D+01	0.591094D+01
60	-0.281126D-02	-0.290285D-02	-0.147854D-02	-0.423134D-02	-0.259810D-02



61	0.340629D-02	0.629427D-02	0.979306D-03	0.128404D-02	0.329010D-02
62	0.175975D-03	-0.554959D-02	-0.380802D-02	-0.473233D-02	0.130041D-02
63	0.223016D-02	0.260828D-02	-0.338212D-02	0.138434D-02	-0.350347D-02
64	-0.133777D-02	0.121891D-03	0.266956D-02	0.552882D-03	0.159536D-02
65	-0.793203D-02	0.731200D-03	-0.206432D-02	-0.436718D-03	-0.286576D-02
66	0.103714D-02	-0.849964D-02	-0.651340D-02	0.172792D-02	0.318103D-02
67	0.169255D-02	-0.612920D-02	-0.731356D-02	0.129593D-02	0.393583D-02
68	0.604564D-02	0.284582D-02	0.131841D-02	-0.790901D-03	0.797573D-02
69	-0.126835D-02	-0.732437D-03	0.215837D-03	-0.111368D-02	-0.104774D-01
70	0.530320D-02	0.353678D-02	0.438734D-02	0.303240D-02	-0.772990D-03
71	0.970181D-02	0.806559D-02	0.617180D-02	0.321433D-02	0.152320D-01
72	0.104016D+02	0.138655D+02	0.840824D+01	-0.493952D+00	0.159927D+01
73	-0.458304D-01	-0.621278D-01	-0.316884D-01	-0.291062D-01	-0.860936D-01
74	-0.776095D-02	-0.249297D-02	-0.415854D-02	-0.118472D-02	0.156180D-01
75	-0.180471D+00	-0.211125D+00	-0.155358D+00	-0.109312D+00	-0.334065D+00
76	0.256912D-01	0.156835D-01	0.198680D-01	0.187391D-01	0.173050D+00
77	-0.707686D-02	-0.811030D-02	-0.554401D-02	-0.453881D-02	-0.803941D-02
78	-0.159907D-02	-0.116992D-02	-0.577567D-03	-0.736860D-03	-0.159946D-01
79	-0.236450D-02	-0.178757D-02	-0.897225D-03	-0.888340D-04	-0.930527D-02
80	0.901752D-04	0.674786D-03	0.318728D-03	0.474193D-03	0.777382D-03
81	0.742334D-02	0.444801D-02	0.480838D-02	0.204804D-02	0.281133D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	0.563482D+00				
57	0.311168D+00	0.890341D+00			
58	-0.448860D-02	-0.100129D+00	0.349881D+00		
59	0.637247D+01	0.522049D+01	-0.388450D+00	0.827968D+03	
60	-0.376603D-02	-0.135946D-02	-0.469149D-03	0.107503D-01	0.264457D-02
61	0.115349D-02	0.657829D-03	-0.271430D-03	0.790554D-01	-0.188388D-03
62	-0.342562D-02	0.148986D-02	-0.358871D-02	-0.156816D+00	-0.559515D-04
63	-0.439403D-02	-0.685853D-02	-0.275159D-02	0.270437D+00	0.113879D-03
64	0.161543D-02	0.215803D-02	0.408748D-02	0.184302D-01	-0.126170D-03
65	-0.204727D-02	-0.586970D-02	-0.438811D-03	-0.203164D+00	-0.225481D-04
66	0.228940D-02	0.491228D-02	-0.487061D-02	0.636852D-01	0.459566D-04
67	0.146705D-02	0.167110D-02	0.261903D-02	-0.277422D-02	0.483580D-04
68	0.422515D-02	0.454777D-02	0.406620D-03	0.302005D-01	-0.497613D-04
69	-0.107950D-02	-0.107559D-01	0.297812D-01	-0.958320D-03	-0.166520D-03
70	-0.483542D-02	0.398806D-02	-0.253249D-02	-0.379156D-02	-0.707942D-05
71	0.689625D-02	0.213153D-01	-0.609045D-01	0.180921D+00	0.843944D-04
72	0.540268D+01	-0.987687D+01	0.370052D+00	0.715356D+02	-0.258262D+00
73	-0.575823D-01	-0.516344D-01	-0.317472D-01	-0.278621D+00	0.149657D-02

74	-0.309798D-02	0.110853D-01	0.520363D-01	0.258315D-01	-0.330221D-03
75	-0.203428D+00	-0.287421D+00	-0.239967D-01	-0.191403D+01	0.231861D-02
76	0.414355D-02	0.207134D+00	-0.156342D+00	-0.168584D+00	0.231729D-03
77	-0.751141D-02	-0.671994D-02	0.314893D-03	-0.150547D+00	0.738273D-04
78	-0.926344D-03	-0.164465D-01	0.111077D-02	0.209074D-01	0.359603D-05
79	-0.309525D-02	-0.395823D-02	-0.279632D-01	0.111522D+00	0.187601D-03
80	0.675770D-03	0.750821D-03	0.533079D-03	0.933477D-02	0.223281D-04
81	0.520985D-02	0.294516D-01	-0.142579D-01	0.721325D-01	0.695487D-05

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	61	62	63	64	65
61	0.101859D-01				
62	-0.416737D-04	0.530422D-02			
63	-0.158831D-03	-0.510276D-03	0.358899D-01		
64	-0.137693D-03	0.176046D-03	0.121520D-03	0.116672D-01	
65	-0.268578D-03	-0.410897D-03	-0.560483D-03	0.206574D-04	0.103333D-01
66	-0.199774D-03	0.593501D-03	0.527680D-03	-0.866404D-03	0.292724D-03
67	-0.114100D-02	0.336407D-03	0.121460D-02	0.798537D-03	0.404422D-03
68	-0.777118D-03	0.486895D-03	0.767935D-03	-0.799738D-04	-0.214438D-03
69	0.195797D-03	-0.668250D-03	-0.803390D-03	0.530388D-03	-0.439737D-03
70	0.109746D-02	0.149244D-03	0.540365D-03	-0.626022D-03	-0.902056D-03
71	0.419748D-03	0.560789D-03	0.277269D-03	-0.937148D-03	0.670332D-04
72	-0.496857D+00	0.674505D+00	0.249858D-01	-0.102128D+00	0.112753D+01
73	-0.147278D-03	0.916221D-04	0.666200D-03	-0.227777D-02	0.187753D-03
74	-0.365582D-04	-0.146431D-03	-0.171015D-02	0.479800D-03	-0.600675D-03
75	-0.583409D-02	-0.374014D-03	0.109997D-01	-0.358409D-02	-0.337024D-02
76	0.116514D-02	0.249236D-03	-0.320471D-02	-0.336017D-02	-0.183930D-05
77	-0.798738D-04	0.867586D-04	0.754620D-04	-0.139059D-04	-0.168814D-04
78	-0.645393D-04	-0.888986D-04	0.298101D-03	-0.306121D-04	-0.842789D-04
79	-0.333834D-03	-0.222189D-03	0.300350D-03	-0.375808D-03	0.384381D-03
80	0.208940D-04	-0.107980D-03	0.847521D-05	-0.820366D-05	-0.701461D-04
81	-0.144492D-04	0.534133D-04	0.914018D-04	-0.252993D-03	-0.108815D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	66	67	68	69	70
66	0.291406D-01				
67	0.975863D-03	0.270166D-01			
68	0.507806D-03	0.716713D-03	0.260389D-01		
69	-0.721074D-03	-0.154626D-03	0.280028D-03	0.948004D-02	
70	-0.621934D-04	-0.444331D-03	0.375012D-03	0.108630D-03	0.919400D-02

71	0.986090D-03	-0.888086D-03	-0.487287D-03	-0.619998D-02	0.149741D-03
72	-0.704506D+00	-0.295593D+00	0.250343D+01	0.100512D+00	0.454227D+00
73	-0.287812D-03	-0.218045D-02	-0.715969D-03	-0.127994D-02	0.161419D-02
74	-0.640401D-03	0.173404D-02	-0.123271D-02	0.545479D-02	-0.191732D-02
75	-0.605870D-02	0.603545D-02	-0.202282D-02	0.212001D-02	0.198946D-02
76	0.144998D-02	-0.371970D-02	-0.346431D-02	-0.168115D-01	0.422406D-02
77	-0.522174D-04	0.136917D-03	-0.506752D-04	0.324140D-04	-0.271869D-04
78	-0.319869D-04	0.852118D-04	-0.179784D-03	0.209534D-03	-0.227460D-04
79	-0.288957D-03	-0.493945D-03	-0.836426D-03	-0.371071D-02	0.326468D-03
80	-0.152886D-03	0.690013D-04	-0.423209D-04	0.411447D-04	0.204420D-04
81	-0.113808D-03	0.248785D-03	-0.354454D-03	-0.170227D-02	0.357911D-03

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	0.194106D-01				
72	0.117323D+01	0.103298D+06			
73	0.563611D-02	-0.191238D+01	0.156565D+00		
74	-0.996649D-02	-0.159281D+01	-0.151347D-01	0.588847D-01	
75	0.184945D-02	-0.142679D+02	0.651344D-01	-0.623860D-01	0.186116D+01
76	0.297872D-01	-0.374144D+01	0.178269D-01	0.680697D-02	-0.100931D+00
77	-0.210105D-03	-0.271849D+00	0.935481D-03	0.167912D-03	0.501966D-02
78	-0.364632D-03	0.934313D-01	0.122216D-02	-0.820887D-03	0.580680D-02
79	0.424564D-02	-0.130319D+01	0.411076D-02	-0.451089D-02	0.105508D-01
80	-0.170352D-03	0.114862D+00	-0.934415D-03	0.199752D-03	-0.206790D-03
81	0.339922D-02	-0.499472D+00	-0.182481D-02	-0.958051D-03	0.292262D-01

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	0.462888D+00				
77	-0.312206D-03	0.322110D-03			
78	-0.644193D-02	0.411909D-04	0.892707D-03		
79	0.128453D-01	0.718352D-04	0.300044D-03	0.756404D-02	
80	0.554075D-03	-0.134864D-04	-0.269732D-04	-0.104661D-04	0.697963D-03
81	0.440310D-01	-0.844087D-04	-0.876462D-03	0.754360D-03	-0.469724D-04

ESTIMATED COVARIANCE MATRIX FOR PARAMETER ESTIMATES

	81
81	0.102545D-01

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	1	2	3	4	5
1	1.000				
2	0.235	1.000			
3	-0.069	-0.196	1.000		
4	0.048	0.206	-0.133	1.000	
5	0.157	0.118	-0.127	0.213	1.000
6	-0.085	-0.136	0.145	-0.180	-0.232
7	-0.051	-0.028	0.065	-0.024	-0.005
8	0.015	-0.013	0.039	0.025	-0.002
9	0.022	-0.007	0.008	-0.005	0.005
10	0.006	-0.021	-0.001	0.014	-0.037
11	-0.033	0.057	-0.031	-0.027	0.016
12	0.066	0.023	-0.047	-0.003	0.036
13	0.036	-0.010	-0.028	0.048	0.031
14	-0.014	-0.039	-0.003	0.047	0.037
15	-0.025	-0.027	-0.010	0.017	0.014
16	-0.064	-0.008	0.017	-0.012	-0.030
17	0.001	0.034	0.001	0.026	0.011
18	-0.040	-0.030	-0.001	-0.030	-0.012
19	-0.005	-0.017	0.014	0.001	0.000
20	-0.001	-0.040	0.024	0.020	0.019
21	-0.005	-0.034	0.004	-0.021	-0.004
22	0.033	-0.017	0.026	-0.007	-0.023
23	0.043	-0.020	-0.017	-0.008	0.003
24	-0.015	-0.056	0.016	0.040	0.009
25	0.018	-0.023	-0.002	0.026	0.032
26	-0.003	-0.020	0.030	-0.007	-0.028
27	0.000	0.001	0.018	-0.039	-0.018
28	-0.006	0.057	0.019	-0.002	0.006
29	0.041	0.009	-0.020	-0.038	-0.041
30	0.002	-0.001	-0.007	0.015	-0.039
31	-0.011	0.012	-0.001	0.005	0.000
32	-0.007	-0.019	-0.005	0.036	0.055
33	0.013	0.002	0.045	0.005	0.009
34	-0.067	-0.030	0.034	-0.019	-0.005
35	-0.017	0.004	0.007	0.001	0.018
36	0.009	0.019	0.008	0.018	0.038
37	-0.035	-0.007	-0.002	-0.005	0.041
38	-0.027	-0.010	-0.030	-0.003	0.003
39	0.006	-0.013	0.005	-0.013	0.032

40	-0.026	-0.008	0.004	0.009	0.019
41	-0.007	-0.011	0.043	-0.012	0.008
42	0.021	0.012	-0.016	0.050	-0.008
43	0.005	-0.019	0.026	0.011	0.025
44	-0.027	-0.057	0.031	0.000	0.020
45	0.009	0.000	0.026	0.026	0.026
46	-0.004	-0.011	0.047	-0.028	-0.004
47	-0.029	0.003	-0.009	0.007	-0.077
48	-0.038	0.003	0.017	-0.004	-0.057
49	-0.033	-0.026	-0.009	-0.002	-0.013
50	-0.036	-0.014	0.013	-0.011	-0.050
51	-0.054	-0.019	0.004	-0.012	-0.053
52	-0.038	0.007	-0.027	-0.021	-0.074
53	-0.026	-0.017	-0.020	0.015	-0.055
54	-0.015	-0.004	-0.004	0.016	-0.023
55	-0.015	0.011	0.027	-0.026	0.004
56	-0.055	-0.027	0.038	0.011	-0.052
57	-0.018	-0.001	0.016	-0.033	0.005
58	-0.032	-0.026	-0.008	0.023	-0.044
59	-0.019	0.024	-0.035	-0.009	-0.013
60	0.006	0.015	0.004	0.017	-0.002
61	0.014	0.025	-0.002	-0.010	0.022
62	0.016	0.006	0.040	0.000	0.030
63	0.019	0.038	0.024	-0.029	-0.013
64	-0.028	-0.016	0.017	0.007	0.008
65	0.018	-0.007	-0.031	0.011	0.008
66	-0.014	-0.012	0.004	-0.038	-0.005
67	-0.011	-0.023	-0.007	0.014	0.007
68	-0.012	0.015	0.008	0.018	-0.017
69	0.011	-0.010	-0.003	-0.014	-0.054
70	0.001	-0.006	0.011	-0.044	-0.007
71	0.009	0.020	-0.005	-0.017	0.047
72	0.038	-0.015	-0.010	-0.016	0.030
73	0.027	0.013	-0.019	-0.012	0.018
74	-0.014	-0.042	-0.033	0.024	0.014
75	0.010	0.010	-0.026	-0.026	-0.009
76	-0.004	0.018	-0.007	0.007	0.031
77	0.028	-0.022	0.031	-0.003	0.039
78	-0.019	0.003	-0.009	0.053	-0.006
79	0.033	0.044	-0.003	-0.011	0.031
80	-0.041	-0.016	-0.007	0.018	0.050
81	0.005	0.025	-0.021	-0.022	0.010

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	6	7	8	9	10
6	1.000				
7	-0.017	1.000			
8	0.029	-0.124	1.000		
9	0.027	0.042	0.110	1.000	
10	-0.031	-0.018	-0.041	0.120	1.000
11	0.032	-0.117	-0.076	0.037	-0.187
12	0.044	-0.036	-0.003	-0.082	0.145
13	0.013	0.009	-0.013	-0.023	0.010
14	0.000	-0.032	-0.007	-0.036	0.017
15	0.030	0.037	-0.024	-0.032	-0.034
16	0.001	-0.030	0.039	-0.003	0.003
17	0.001	0.000	-0.014	0.073	-0.003
18	-0.024	0.023	-0.019	-0.010	0.038
19	0.037	-0.009	-0.021	-0.018	-0.002
20	0.003	0.011	-0.008	-0.022	-0.032
21	0.049	0.029	-0.015	0.036	-0.011
22	-0.010	-0.029	0.040	-0.004	-0.017
23	-0.034	-0.030	-0.004	-0.019	0.014
24	-0.013	-0.008	0.014	-0.006	0.004
25	-0.012	-0.020	0.003	0.029	-0.011
26	0.015	0.030	0.027	-0.015	-0.012
27	0.014	-0.020	0.000	-0.017	0.051
28	-0.025	0.025	-0.004	-0.007	-0.013
29	-0.034	-0.010	0.021	0.023	0.034
30	0.009	0.023	-0.016	-0.026	-0.050
31	-0.036	-0.002	0.012	0.003	0.032
32	-0.039	0.009	0.019	0.025	-0.025
33	0.016	-0.026	-0.011	0.021	0.018
34	-0.045	0.002	-0.022	-0.016	0.025
35	-0.010	-0.003	-0.002	0.032	0.013
36	-0.030	0.015	-0.011	0.036	0.038
37	-0.011	0.004	-0.015	0.044	0.005
38	-0.026	0.015	0.011	0.020	0.033
39	-0.013	0.025	-0.009	0.035	0.018
40	-0.055	-0.008	0.012	0.054	0.046
41	-0.011	-0.006	-0.011	0.029	0.034
42	-0.022	-0.018	0.031	0.027	-0.004
43	-0.033	-0.020	-0.010	0.048	0.037
44	-0.025	-0.014	-0.028	0.014	0.034
45	-0.056	0.009	-0.025	0.027	0.034
46	0.010	0.011	-0.039	0.024	0.039

47	0.014	0.001	-0.058	-0.053	0.002
48	0.009	0.008	-0.049	-0.044	0.018
49	-0.004	-0.024	0.000	-0.004	-0.003
50	-0.007	-0.019	-0.042	-0.045	-0.002
51	0.004	-0.021	-0.060	-0.053	0.018
52	0.034	0.022	-0.025	-0.036	0.039
53	0.002	0.002	-0.031	-0.043	0.008
54	-0.003	-0.011	-0.012	-0.048	-0.037
55	-0.027	0.000	-0.009	-0.064	0.033
56	-0.018	0.043	-0.017	-0.049	0.016
57	-0.025	0.005	-0.045	-0.067	0.011
58	0.025	-0.017	-0.035	-0.035	0.000
59	-0.038	-0.035	0.005	-0.044	0.054
60	-0.029	-0.032	0.013	-0.061	-0.019
61	-0.009	0.052	0.014	0.019	-0.007
62	-0.056	0.006	0.018	-0.019	-0.028
63	-0.006	-0.025	-0.014	-0.026	-0.024
64	-0.021	-0.013	-0.007	-0.047	0.006
65	-0.012	0.014	0.004	0.016	-0.013
66	0.010	0.034	0.008	-0.061	0.002
67	-0.038	-0.010	-0.048	-0.034	0.047
68	0.018	-0.012	0.006	-0.017	-0.005
69	0.006	-0.009	-0.021	0.002	-0.008
70	0.010	-0.016	0.033	-0.018	-0.003
71	-0.032	0.007	0.020	0.006	0.017
72	-0.043	0.010	0.006	0.036	0.032
73	0.025	0.012	0.005	-0.025	-0.050
74	-0.020	0.023	-0.006	-0.001	0.018
75	0.025	0.008	-0.025	-0.028	-0.009
76	-0.024	-0.019	-0.002	-0.018	0.020
77	-0.018	0.011	0.007	0.052	-0.014
78	0.047	-0.003	-0.017	0.050	-0.033
79	0.032	-0.043	0.027	0.026	-0.012
80	-0.032	0.022	0.069	0.018	-0.030
81	-0.010	-0.052	-0.149	-0.033	-0.009

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	11	12	13	14	15
11	1.000				
12	0.196	1.000			
13	-0.035	0.034	1.000		
14	-0.018	-0.019	0.297	1.000	

15	-0.008	-0.035	0.055	0.260	1.000
16	-0.003	-0.031	-0.117	-0.169	-0.046
17	0.039	0.002	-0.012	-0.141	-0.208
18	-0.022	-0.020	0.008	0.010	-0.013
19	0.017	0.087	0.093	0.143	0.032
20	-0.038	0.008	0.033	0.081	0.251
21	0.030	0.009	-0.013	0.028	0.017
22	0.016	-0.001	0.068	0.007	0.048
23	0.032	0.016	0.145	0.131	0.056
24	0.005	-0.018	-0.012	0.127	0.191
25	0.049	0.023	-0.004	0.064	-0.005
26	-0.036	-0.013	0.043	0.032	0.025
27	-0.008	0.010	0.023	0.008	0.011
28	0.008	-0.002	-0.052	-0.121	-0.054
29	0.014	0.069	-0.018	-0.049	-0.211
30	-0.031	-0.041	-0.034	-0.044	0.020
31	-0.017	-0.002	-0.051	0.018	-0.027
32	-0.004	-0.016	-0.005	-0.001	-0.014
33	0.012	-0.019	0.041	0.060	0.077
34	-0.002	0.014	-0.014	-0.011	-0.007
35	0.010	-0.013	0.015	-0.002	-0.012
36	-0.022	-0.017	0.007	0.011	-0.022
37	-0.020	-0.039	0.000	0.009	-0.009
38	0.001	0.000	-0.023	0.014	-0.031
39	-0.011	-0.010	-0.010	0.005	-0.030
40	0.005	-0.005	0.008	-0.003	-0.007
41	0.003	0.011	-0.034	-0.022	-0.010
42	0.019	-0.004	0.037	-0.005	-0.017
43	0.005	-0.018	0.011	0.000	-0.038
44	-0.006	0.027	-0.004	-0.004	-0.041
45	0.012	0.001	0.019	0.021	-0.011
46	0.007	-0.004	0.012	-0.008	-0.044
47	0.012	-0.033	-0.006	0.007	0.009
48	0.004	-0.036	0.035	0.051	0.013
49	-0.009	-0.006	0.013	0.040	0.017
50	-0.008	-0.022	0.008	0.016	-0.019
51	0.001	-0.030	0.019	0.001	-0.016
52	0.011	0.007	-0.005	0.016	-0.005
53	-0.008	-0.009	0.012	0.014	0.001
54	0.015	0.020	-0.012	0.008	0.013
55	-0.001	-0.017	-0.003	-0.003	0.009
56	0.020	-0.043	-0.019	0.030	-0.026
57	0.027	-0.010	0.018	0.013	0.019
58	0.051	-0.002	0.033	0.013	-0.016



59	0.002	0.027	-0.008	-0.017	-0.020
60	0.015	0.009	-0.003	0.009	-0.023
61	0.005	0.060	-0.006	-0.012	-0.056
62	-0.046	0.018	0.012	0.023	0.007
63	0.023	-0.016	0.030	-0.023	-0.019
64	0.009	0.020	-0.035	0.009	0.023
65	-0.024	0.020	-0.012	0.007	0.018
66	-0.012	-0.016	-0.017	0.001	-0.005
67	-0.034	0.006	-0.009	0.005	-0.036
68	-0.025	0.015	0.004	0.036	-0.011
69	0.022	-0.009	0.028	-0.028	-0.020
70	0.045	0.024	0.011	-0.020	0.000
71	-0.042	0.031	-0.035	0.032	0.005
72	0.017	0.045	-0.020	-0.007	0.008
73	-0.014	0.041	0.014	-0.029	0.083
74	0.024	-0.022	0.002	-0.026	-0.010
75	0.031	-0.003	0.026	0.032	0.022
76	0.021	0.039	0.015	-0.018	0.007
77	-0.007	0.024	-0.002	-0.028	0.026
78	-0.014	-0.029	-0.038	0.003	0.002
79	-0.026	0.012	-0.033	-0.006	0.028
80	0.056	0.038	-0.019	-0.013	0.005
81	0.014	0.017	0.035	0.039	-0.004

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	16	17	18	19	20
16	1.000				
17	0.237	1.000			
18	-0.114	-0.237	1.000		
19	-0.172	-0.048	0.047	1.000	
20	-0.034	-0.170	0.079	0.214	1.000
21	0.087	0.177	-0.263	-0.136	-0.156
22	-0.002	0.000	0.035	0.101	0.255
23	-0.163	-0.080	0.012	0.216	0.052
24	-0.098	-0.181	0.023	0.039	0.231
25	0.101	0.135	-0.271	-0.045	-0.063
26	-0.083	-0.044	0.050	0.159	0.133
27	-0.041	-0.085	0.047	0.061	0.033
28	0.111	0.041	-0.008	-0.192	-0.063
29	0.034	0.155	-0.045	-0.077	-0.285
30	-0.065	-0.154	0.224	0.002	0.067
31	0.030	0.037	-0.052	-0.056	-0.177

32	0.034	0.048	-0.072	-0.018	-0.081
33	-0.011	-0.023	0.056	0.024	0.069
34	-0.004	-0.002	0.003	0.013	0.024
35	0.001	0.005	0.005	-0.005	0.030
36	0.014	0.024	0.009	-0.026	0.001
37	0.030	0.024	-0.001	0.005	-0.011
38	-0.016	-0.014	-0.008	-0.026	0.017
39	0.023	0.026	-0.010	-0.012	0.023
40	-0.009	0.040	-0.010	-0.031	-0.020
41	0.024	0.006	0.009	-0.014	0.027
42	0.002	0.026	-0.003	0.000	-0.019
43	0.012	0.014	0.025	-0.014	-0.016
44	0.015	0.034	0.004	-0.037	-0.003
45	0.012	0.014	0.003	-0.033	-0.028
46	-0.016	0.002	-0.013	0.004	0.023
47	0.009	0.016	0.062	-0.007	-0.005
48	-0.011	-0.004	0.066	0.031	0.005
49	-0.016	0.003	0.026	0.014	-0.013
50	-0.010	0.019	0.028	0.000	-0.012
51	-0.009	0.027	0.054	0.011	-0.004
52	-0.020	0.002	0.013	-0.004	-0.044
53	-0.011	-0.003	0.036	0.018	0.023
54	0.047	-0.018	0.047	0.010	-0.013
55	-0.026	-0.021	0.065	-0.016	0.015
56	-0.016	0.002	0.020	0.014	0.003
57	-0.052	-0.047	0.078	-0.010	0.039
58	0.018	0.030	-0.004	0.041	-0.008
59	-0.001	-0.037	0.031	-0.008	0.015
60	0.014	-0.001	-0.002	0.027	0.039
61	-0.020	-0.004	0.002	0.027	-0.032
62	-0.003	-0.047	0.018	-0.013	0.024
63	-0.062	-0.030	-0.019	-0.015	-0.057
64	0.028	0.001	0.012	0.017	-0.009
65	0.002	-0.023	0.020	-0.003	0.041
66	-0.009	-0.023	0.003	-0.005	-0.018
67	0.007	0.037	0.025	-0.005	0.036
68	-0.020	-0.014	-0.039	-0.026	-0.032
69	-0.022	-0.005	-0.008	0.014	-0.025
70	-0.005	-0.003	-0.005	-0.037	-0.022
71	0.000	-0.031	0.003	-0.010	0.001
72	0.028	0.022	0.019	0.024	-0.025
73	-0.010	-0.058	-0.026	0.018	0.016
74	0.022	-0.017	0.012	-0.011	0.003
75	0.007	0.012	-0.036	-0.030	-0.020

76	-0.015	-0.045	0.025	-0.023	0.040
77	-0.002	0.002	-0.071	0.001	0.018
78	0.021	0.013	-0.026	0.036	-0.027
79	-0.028	-0.018	0.024	-0.015	0.039
80	0.019	-0.037	0.035	-0.012	0.024
81	-0.021	-0.023	0.038	-0.027	0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	21	22	23	24	25
21	1.000				
22	-0.210	1.000			
23	-0.056	0.032	1.000		
24	-0.036	0.052	0.235	1.000	
25	0.251	-0.092	-0.107	-0.173	1.000
26	-0.170	0.328	0.085	0.187	-0.199
27	-0.051	0.102	0.189	0.128	-0.231
28	0.033	-0.035	-0.230	-0.049	0.058
29	0.048	-0.081	-0.082	-0.259	0.058
30	-0.262	0.064	0.026	0.039	-0.282
31	0.164	-0.311	-0.016	-0.062	0.113
32	0.075	-0.087	-0.118	-0.148	0.207
33	-0.060	0.071	0.073	0.039	-0.051
34	0.011	0.012	0.011	0.050	-0.007
35	-0.012	0.033	0.013	0.054	-0.028
36	0.002	0.012	0.020	0.047	-0.008
37	-0.003	-0.006	0.017	0.026	0.032
38	-0.009	-0.030	0.049	0.075	-0.021
39	-0.007	-0.014	0.031	0.034	-0.010
40	-0.011	-0.005	0.033	0.039	-0.026
41	0.014	-0.030	0.014	0.022	0.002
42	-0.025	-0.016	0.043	0.026	-0.026
43	-0.008	0.001	0.004	0.010	0.009
44	0.017	-0.019	0.030	0.053	-0.002
45	0.004	-0.004	0.013	0.031	-0.003
46	-0.002	0.019	0.024	0.021	-0.031
47	-0.050	-0.018	0.004	-0.015	-0.025
48	-0.060	0.005	0.032	0.005	-0.018
49	-0.020	-0.024	-0.020	-0.030	0.017
50	-0.019	-0.033	0.009	0.006	-0.016
51	-0.030	-0.020	0.047	0.003	-0.026
52	-0.014	-0.022	0.031	-0.005	-0.004
53	-0.037	-0.015	0.032	-0.024	0.008

54	-0.009	0.003	-0.002	0.006	0.024
55	-0.049	-0.001	0.019	0.022	-0.047
56	-0.031	-0.015	0.027	0.012	-0.028
57	-0.041	0.013	0.039	0.047	-0.060
58	-0.012	-0.007	0.030	-0.004	0.024
59	0.005	0.011	-0.050	-0.028	0.014
60	0.002	0.022	-0.020	-0.037	-0.003
61	0.000	-0.009	-0.044	-0.032	0.008
62	-0.018	0.021	0.037	0.052	-0.020
63	-0.018	-0.028	-0.010	-0.044	-0.016
64	-0.015	-0.014	-0.006	-0.007	0.038
65	-0.022	0.000	0.014	-0.007	-0.012
66	-0.026	0.009	-0.014	-0.038	0.011
67	0.020	-0.008	0.032	0.024	-0.022
68	0.045	0.004	0.008	-0.004	0.046
69	-0.037	0.018	0.022	0.006	0.020
70	0.010	0.021	-0.029	-0.036	-0.038
71	0.022	0.011	-0.011	-0.013	-0.022
72	-0.021	-0.006	-0.067	-0.017	-0.018
73	-0.002	-0.020	-0.001	-0.040	-0.016
74	-0.018	0.001	0.011	-0.028	0.016
75	0.048	-0.015	0.026	-0.005	-0.021
76	-0.036	0.044	-0.044	0.018	-0.030
77	-0.004	-0.007	-0.019	-0.001	0.044
78	0.029	-0.040	-0.042	-0.066	0.061
79	-0.002	-0.012	-0.017	0.006	-0.025
80	-0.021	-0.054	-0.011	0.013	0.006
81	0.002	0.018	0.023	0.030	-0.042

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	26	27	28	29	30
26	1.000				
27	0.343	1.000			
28	-0.052	-0.037	1.000		
29	-0.110	-0.034	0.254	1.000	
30	0.058	0.035	-0.100	-0.158	1.000
31	-0.324	-0.115	0.057	0.202	-0.178
32	-0.303	-0.385	0.143	0.127	-0.153
33	0.083	0.039	-0.103	-0.174	0.182
34	0.006	-0.009	0.034	-0.030	-0.008
35	0.047	0.024	0.031	0.007	-0.022
36	0.016	-0.012	0.013	-0.008	-0.040

37	-0.007	-0.006	-0.018	-0.001	-0.045
38	0.024	0.020	0.006	0.021	-0.052
39	0.038	0.009	0.004	0.029	-0.047
40	0.021	-0.008	0.003	0.015	-0.021
41	-0.011	-0.016	0.011	-0.002	-0.053
42	0.027	-0.012	-0.009	-0.015	-0.048
43	0.018	0.000	0.025	0.011	-0.059
44	0.031	0.001	-0.002	-0.008	-0.041
45	0.010	-0.007	0.048	0.027	-0.045
46	0.006	-0.023	-0.002	-0.010	-0.012
47	-0.022	-0.033	0.026	-0.024	0.006
48	-0.010	0.001	-0.016	-0.014	0.003
49	-0.015	-0.025	0.000	0.002	0.032
50	-0.011	0.000	-0.005	0.004	-0.014
51	-0.041	-0.028	-0.001	-0.015	0.004
52	-0.002	0.013	-0.019	-0.002	-0.022
53	-0.018	-0.018	0.011	0.008	0.048
54	-0.001	-0.016	-0.029	-0.042	-0.013
55	0.011	0.002	-0.020	0.005	0.007
56	-0.003	-0.019	-0.020	-0.002	0.025
57	0.011	0.031	-0.016	-0.015	0.012
58	0.023	-0.004	0.043	0.003	-0.011
59	-0.020	-0.014	0.057	0.029	0.000
60	0.019	0.041	0.056	0.004	-0.022
61	-0.009	0.001	-0.032	0.052	-0.008
62	-0.037	-0.031	-0.007	0.041	0.022
63	0.018	-0.014	-0.025	0.036	0.034
64	0.007	0.022	0.024	-0.028	0.005
65	0.054	0.021	-0.023	-0.045	0.028
66	-0.003	0.007	0.004	0.023	0.033
67	-0.007	-0.003	-0.064	-0.011	-0.038
68	0.005	0.016	0.004	-0.005	-0.039
69	0.035	0.018	0.019	-0.037	0.026
70	0.000	0.010	-0.014	0.037	-0.051
71	-0.030	-0.019	-0.042	-0.009	-0.008
72	-0.001	-0.058	-0.005	-0.012	0.000
73	0.007	0.015	-0.045	-0.026	0.039
74	0.022	-0.001	0.031	0.005	0.013
75	0.014	-0.011	-0.002	0.002	-0.011
76	0.003	0.022	0.022	0.008	0.025
77	0.041	-0.009	-0.016	0.012	0.020
78	-0.018	-0.039	0.008	0.003	0.011
79	-0.043	-0.025	-0.010	0.021	0.018
80	-0.014	-0.028	0.028	0.029	0.009

81	-0.026	-0.033	-0.003	0.008	-0.005
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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	31	32	33	34	35
31	1.000				
32	0.277	1.000			
33	-0.259	-0.310	1.000		
34	0.043	0.024	-0.015	1.000	
35	0.049	-0.002	0.001	0.364	1.000
36	0.038	0.029	0.010	0.377	0.669
37	0.034	0.011	0.006	0.246	0.423
38	0.075	-0.011	-0.006	0.365	0.600
39	0.008	0.005	-0.003	0.340	0.603
40	0.009	0.004	0.013	0.340	0.567
41	0.038	0.049	-0.024	0.264	0.488
42	0.037	-0.003	-0.020	0.238	0.347
43	0.041	0.018	-0.008	0.378	0.636
44	0.050	0.019	-0.006	0.357	0.636
45	0.053	0.016	0.001	0.339	0.567
46	0.013	0.007	-0.015	0.195	0.302
47	-0.012	-0.005	-0.007	0.002	-0.043
48	0.003	-0.006	-0.015	-0.004	-0.034
49	0.020	0.049	-0.040	0.006	-0.016
50	-0.013	0.019	-0.040	-0.009	-0.032
51	0.004	0.008	-0.003	-0.006	-0.041
52	0.009	-0.029	0.000	0.005	-0.023
53	-0.007	0.005	0.008	-0.034	-0.070
54	-0.019	-0.001	-0.019	-0.020	0.004
55	-0.013	-0.034	0.013	0.053	0.023
56	0.012	0.000	-0.038	-0.011	-0.053
57	-0.012	-0.020	-0.013	0.049	0.001
58	-0.046	-0.028	0.027	0.035	0.049
59	0.014	0.019	-0.040	-0.041	-0.059
60	0.003	0.001	0.020	0.021	-0.007
61	0.001	0.032	0.061	-0.051	-0.065
62	0.013	-0.026	0.080	0.050	0.023
63	-0.014	0.009	-0.008	0.036	0.044
64	0.026	-0.055	0.001	-0.002	0.038
65	-0.017	-0.019	0.045	0.016	0.031
66	-0.023	-0.024	-0.034	0.043	-0.009
67	0.018	-0.046	0.070	0.063	0.049
68	-0.006	-0.019	0.010	0.016	-0.030

69	0.001	-0.003	0.008	0.014	0.035
70	0.032	0.000	-0.014	0.017	0.011
71	0.057	0.039	-0.005	-0.003	-0.049
72	-0.011	0.006	0.018	0.006	0.000
73	-0.021	-0.029	-0.016	-0.163	-0.277
74	-0.047	-0.006	0.022	-0.003	0.052
75	-0.001	0.005	-0.010	-0.081	-0.049
76	-0.019	-0.004	0.011	0.022	-0.029
77	0.000	-0.015	-0.003	0.023	0.085
78	-0.012	0.029	-0.042	-0.066	-0.071
79	0.012	0.020	-0.008	-0.059	-0.044
80	-0.026	-0.009	0.036	-0.007	-0.023
81	0.010	-0.019	0.052	0.091	0.117

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	36	37	38	39	40
36	1.000				
37	0.487	1.000			
38	0.673	0.411	1.000		
39	0.665	0.451	0.589	1.000	
40	0.642	0.395	0.578	0.600	1.000
41	0.529	0.375	0.493	0.487	0.470
42	0.419	0.279	0.401	0.380	0.369
43	0.707	0.468	0.630	0.633	0.630
44	0.703	0.462	0.616	0.633	0.604
45	0.626	0.417	0.551	0.560	0.570
46	0.368	0.242	0.313	0.357	0.280
47	-0.051	-0.012	-0.057	-0.052	-0.040
48	-0.054	-0.009	-0.063	-0.063	-0.046
49	-0.007	-0.006	-0.029	-0.005	0.009
50	-0.052	-0.023	-0.062	-0.027	-0.033
51	-0.064	-0.006	-0.095	-0.054	-0.037
52	-0.045	-0.015	-0.052	-0.021	-0.045
53	-0.064	-0.024	-0.085	-0.068	-0.025
54	-0.024	0.001	-0.008	-0.029	-0.010
55	-0.017	0.014	-0.019	-0.011	0.001
56	-0.069	-0.003	-0.087	-0.058	-0.054
57	-0.037	0.006	-0.002	-0.005	-0.002
58	0.050	0.049	0.008	0.034	0.053
59	-0.082	-0.051	-0.094	-0.075	-0.079
60	0.011	-0.015	0.016	-0.008	0.004
61	-0.052	-0.028	-0.034	-0.045	-0.042

62	0.017	0.019	0.005	0.044	0.035
63	0.063	0.007	0.058	0.011	0.077
64	0.030	0.049	0.035	0.032	0.055
65	0.036	0.031	0.009	0.064	0.017
66	0.005	-0.007	-0.023	0.011	-0.008
67	0.065	0.044	0.025	0.018	0.022
68	-0.010	-0.010	-0.028	-0.010	0.002
69	0.043	-0.008	0.008	0.004	0.036
70	-0.012	0.004	0.011	-0.046	0.037
71	-0.046	-0.030	-0.003	-0.032	-0.025
72	0.025	0.022	0.007	0.030	-0.015
73	-0.327	-0.230	-0.269	-0.300	-0.303
74	0.059	0.027	0.031	0.062	0.077
75	-0.052	-0.063	-0.024	-0.033	-0.017
76	-0.035	-0.014	-0.014	-0.023	-0.015
77	0.075	0.022	0.095	0.081	0.050
78	-0.047	-0.032	-0.047	-0.060	-0.051
79	-0.043	-0.040	-0.038	-0.016	-0.032
80	-0.015	0.002	-0.017	-0.023	-0.019
81	0.128	0.097	0.137	0.135	0.128

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	41	42	43	44	45
41	1.000				
42	0.326	1.000			
43	0.518	0.399	1.000		
44	0.498	0.404	0.682	1.000	
45	0.467	0.348	0.732	0.588	1.000
46	0.272	0.186	0.374	0.345	0.306
47	-0.033	-0.040	-0.036	-0.032	-0.045
48	-0.039	-0.042	-0.048	-0.047	-0.036
49	-0.015	-0.021	0.010	-0.017	0.012
50	-0.032	-0.010	-0.031	-0.022	-0.022
51	-0.052	-0.046	-0.047	-0.034	-0.043
52	-0.046	-0.022	-0.029	-0.047	-0.020
53	-0.065	-0.070	-0.052	-0.044	-0.063
54	-0.008	-0.059	0.001	-0.005	-0.011
55	-0.021	-0.014	-0.004	-0.008	-0.011
56	-0.054	-0.050	-0.059	-0.048	-0.046
57	-0.015	-0.018	-0.008	0.028	-0.012
58	-0.006	0.047	0.034	0.011	0.053
59	-0.044	-0.104	-0.058	-0.063	-0.042



60	-0.003	0.009	0.015	0.012	0.012
61	-0.028	-0.041	-0.055	-0.063	-0.045
62	0.012	0.037	0.009	0.023	0.002
63	0.059	0.031	0.054	0.005	0.050
64	0.033	0.005	0.025	0.033	0.029
65	0.046	0.047	0.042	0.019	0.031
66	0.016	-0.030	-0.007	-0.015	-0.009
67	0.028	0.031	0.061	0.034	0.030
68	-0.029	-0.018	-0.028	-0.025	-0.006
69	0.012	0.039	0.009	0.015	0.054
70	0.016	-0.016	0.019	-0.003	0.018
71	-0.020	-0.062	-0.037	-0.009	-0.046
72	0.006	-0.017	0.044	-0.010	0.036
73	-0.261	-0.194	-0.319	-0.323	-0.305
74	-0.001	0.014	0.000	0.053	0.008
75	-0.019	-0.022	-0.057	-0.071	-0.045
76	0.003	-0.025	-0.020	-0.027	0.019
77	0.071	0.054	0.058	0.042	0.054
78	0.006	-0.047	-0.051	-0.080	-0.047
79	0.004	-0.060	-0.031	-0.019	-0.027
80	-0.045	-0.007	-0.028	-0.015	0.020
81	0.101	0.079	0.122	0.128	0.124

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	46	47	48	49	50
46	1.000				
47	-0.048	1.000			
48	-0.023	0.669	1.000		
49	-0.034	0.396	0.473	1.000	
50	-0.029	0.541	0.657	0.381	1.000
51	-0.035	0.587	0.658	0.428	0.610
52	-0.022	0.546	0.643	0.430	0.558
53	-0.056	0.442	0.528	0.325	0.448
54	0.005	0.369	0.445	0.259	0.412
55	0.020	0.501	0.590	0.368	0.523
56	-0.007	0.625	0.710	0.438	0.591
57	0.002	0.391	0.481	0.303	0.431
58	0.008	-0.002	-0.019	-0.020	-0.055
59	-0.050	0.270	0.306	0.187	0.272
60	0.046	-0.088	-0.093	-0.087	-0.091
61	-0.002	-0.053	0.056	0.040	0.077
62	0.020	-0.061	-0.130	-0.025	-0.029

63	-0.004	-0.018	-0.036	-0.028	-0.002
64	0.011	0.023	0.019	0.028	-0.090
65	0.010	-0.008	-0.011	-0.021	-0.030
66	0.022	-0.026	-0.012	-0.031	-0.002
67	0.019	0.028	-0.009	0.011	-0.011
68	-0.055	0.033	0.006	0.032	0.023
69	-0.012	-0.003	0.025	-0.024	-0.043
70	0.005	-0.035	-0.015	0.031	0.034
71	0.003	0.060	0.061	0.046	0.082
72	0.025	0.020	0.017	0.052	0.005
73	-0.156	-0.158	-0.210	-0.146	-0.154
74	0.012	-0.039	-0.028	-0.015	-0.027
75	-0.037	-0.158	-0.190	-0.141	-0.183
76	-0.005	0.013	0.056	0.060	0.064
77	0.045	-0.543	-0.607	-0.366	-0.527
78	-0.056	-0.032	-0.052	-0.055	-0.074
79	-0.031	-0.046	-0.038	-0.044	-0.012
80	-0.049	0.022	0.017	0.057	0.034
81	0.080	0.087	0.105	0.082	0.090

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	51	52	53	54	55
51	1.000				
52	0.567	1.000			
53	0.466	0.455	1.000		
54	0.398	0.375	0.302	1.000	
55	0.530	0.481	0.376	0.319	1.000
56	0.622	0.596	0.470	0.439	0.555
57	0.470	0.365	0.314	0.275	0.790
58	-0.060	-0.025	-0.025	-0.017	-0.085
59	0.299	0.278	0.232	0.205	0.219
60	-0.076	-0.065	-0.039	-0.120	-0.054
61	0.047	0.072	0.013	0.019	0.035
62	0.003	-0.088	-0.072	-0.095	0.019
63	0.016	0.016	-0.025	0.011	-0.020
64	-0.017	0.001	0.034	0.007	0.016
65	-0.108	0.008	-0.028	-0.006	-0.030
66	0.008	-0.057	-0.052	0.015	0.020
67	0.014	-0.043	-0.061	0.011	0.025
68	0.052	0.020	0.011	-0.007	0.053
69	-0.018	-0.009	0.003	-0.017	-0.115
70	0.077	0.042	0.063	0.046	-0.009

71	0.097	0.067	0.061	0.034	0.116
72	0.045	0.050	0.036	-0.002	0.005
73	-0.161	-0.181	-0.110	-0.107	-0.232
74	-0.044	-0.012	-0.024	-0.007	0.069
75	-0.184	-0.178	-0.156	-0.117	-0.261
76	0.052	0.027	0.040	0.040	0.271
77	-0.548	-0.521	-0.424	-0.368	-0.477
78	-0.074	-0.045	-0.027	-0.036	-0.570
79	-0.038	-0.024	-0.014	-0.001	-0.114
80	0.005	0.029	0.017	0.026	0.031
81	0.102	0.051	0.065	0.029	0.296

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	56	57	58	59	60
56	1.000				
57	0.439	1.000			
58	-0.010	-0.179	1.000		
59	0.295	0.192	-0.023	1.000	
60	-0.098	-0.028	-0.015	0.007	1.000
61	0.015	0.007	-0.005	0.027	-0.036
62	-0.063	0.022	-0.083	-0.075	-0.015
63	-0.031	-0.038	-0.025	0.050	0.012
64	0.020	0.021	0.064	0.006	-0.023
65	-0.027	-0.061	-0.007	-0.069	-0.004
66	0.018	0.030	-0.048	0.013	0.005
67	0.012	0.011	0.027	-0.001	0.006
68	0.035	0.030	0.004	0.007	-0.006
69	-0.015	-0.117	0.517	0.000	-0.033
70	-0.067	0.044	-0.045	-0.001	-0.001
71	0.066	0.162	-0.739	0.045	0.012
72	0.022	-0.033	0.002	0.008	-0.016
73	-0.194	-0.138	-0.136	-0.024	0.074
74	-0.017	0.048	0.363	0.004	-0.026
75	-0.199	-0.223	-0.030	-0.049	0.033
76	0.008	0.323	-0.388	-0.009	0.007
77	-0.558	-0.397	0.030	-0.292	0.080
78	-0.041	-0.583	0.063	0.024	0.002
79	-0.047	-0.048	-0.544	0.045	0.042
80	0.034	0.030	0.034	0.012	0.016
81	0.069	0.308	-0.238	0.025	0.001

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	61	62	63	64	65
61	1.000				
62	-0.006	1.000			
63	-0.008	-0.037	1.000		
64	-0.013	0.022	0.006	1.000	
65	-0.026	-0.056	-0.029	0.002	1.000
66	-0.012	0.048	0.016	-0.047	0.017
67	-0.069	0.028	0.039	0.045	0.024
68	-0.048	0.041	0.025	-0.005	-0.013
69	0.020	-0.094	-0.044	0.050	-0.044
70	0.113	0.021	0.030	-0.060	-0.093
71	0.030	0.055	0.011	-0.062	0.005
72	-0.015	0.029	0.000	-0.003	0.035
73	-0.004	0.003	0.009	-0.053	0.005
74	-0.001	-0.008	-0.037	0.018	-0.024
75	-0.042	-0.004	0.043	-0.024	-0.024
76	0.017	0.005	-0.025	-0.046	0.000
77	-0.044	0.066	0.022	-0.007	-0.009
78	-0.021	-0.041	0.053	-0.009	-0.028
79	-0.038	-0.035	0.018	-0.040	0.043
80	0.008	-0.056	0.002	-0.003	-0.026
81	-0.001	0.007	0.005	-0.023	-0.011

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES					
	66	67	68	69	70
66	1.000				
67	0.035	1.000			
68	0.018	0.027	1.000		
69	-0.043	-0.010	0.018	1.000	
70	-0.004	-0.028	0.024	0.012	1.000
71	0.041	-0.039	-0.022	-0.457	0.011
72	-0.013	-0.006	0.048	0.003	0.015
73	-0.004	-0.034	-0.011	-0.033	0.043
74	-0.015	0.043	-0.031	0.231	-0.082
75	-0.026	0.027	-0.009	0.016	0.015
76	0.012	-0.033	-0.032	-0.254	0.065
77	-0.017	0.046	-0.017	0.019	-0.016
78	-0.006	0.017	-0.037	0.072	-0.008
79	-0.019	-0.035	-0.060	-0.438	0.039
80	-0.034	0.016	-0.010	0.016	0.008

81	-0.007	0.015	-0.022	-0.173	0.037
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ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	71	72	73	74	75
71	1.000				
72	0.026	1.000			
73	0.102	-0.015	1.000		
74	-0.295	-0.020	-0.158	1.000	
75	0.010	-0.033	0.121	-0.188	1.000
76	0.314	-0.017	0.066	0.041	-0.109
77	-0.084	-0.047	0.132	0.039	0.205
78	-0.088	0.010	0.103	-0.113	0.142
79	0.350	-0.047	0.119	-0.214	0.089
80	-0.046	0.014	-0.089	0.031	-0.006
81	0.241	-0.015	-0.046	-0.039	0.212

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

	76	77	78	79	80
76	1.000				
77	-0.026	1.000			
78	-0.317	0.077	1.000		
79	0.217	0.046	0.115	1.000	
80	0.031	-0.028	-0.034	-0.005	1.000
81	0.639	-0.046	-0.290	0.086	-0.018

ESTIMATED CORRELATION MATRIX FOR PARAMETER ESTIMATES

81	81
81	1.000

TECHNICAL 8 OUTPUT

TECHNICAL 8 OUTPUT FOR BAYES ESTIMATION

CHAIN	BSEED
1	0
2	285380

3            253358

ITERATION	POTENTIAL SCALE REDUCTION	PARAMETER WITH HIGHEST PSR
100	1.190	71
200	1.031	57
300	1.014	76
400	1.018	47
500	1.020	47
600	1.019	47
700	1.021	74
800	1.013	55
900	1.011	76
1000	1.007	76

Effects of combined practices and a single practice

Effects of combined practices and a single practice







