

Stuff It Took Me Took Much Time to Write

I. M. Happy, Ph.D.

Chairperson: A. Smith, Ph.D.

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Stuff It Took Me Took Much Time to Write

by

I. M. Happy, B.A., M.A., LMnoP

A Dissertation

Approved by the Department of Educational Psychology

Com Fy Chair, Ph.D., Chairperson

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of

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Approved by the Thesis Committee

A. Smith, Ph.D., Chairperson

B. Smith, Ph.D.

C. Smith, Ph.D.

D. Smith, Ph.D.

E. Smith, Ph.D.

Accepted by the Graduate School
May 2019

J. Larry Lyon, Ph.D., Dean

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LIST OF ABBREVIATIONS

(This page is optional)

EdS	Education Specialist
MA	Master of Arts
PhD	Doctor of Philosophy
AMADR	I made this one up merely to show that this line is single spaced

PREFACE

Preface materials ... (this is optional)

ACKNOWLEDGMENTS

Thank you notes . . . (this is optional)

CHAPTER ONE

Introduction

Drafting an introduction may feel like a daunting task. The writer must engage the audience in his or her research, provide the necessary background information about the topic, and set the stage for the study itself. How is this accomplished? First and foremost, there is no one formula. Consider the following: As undergraduates prepare to apply to graduate school they often ask faculty, “What makes a successful application?” The applicants invariably think in a formulaic fashion, believing that a secret formula exists - something akin to four parts research, two parts practical experience, GREs over a cutoff score, and an undergraduate GPA of at least 3.5. They believe that adherence to the recipe will fashion the ideal candidate. Sorry, there is no rigid formula. In fact, whereas the ingredients of the formula are indeed important to the evaluation process, different schools look differently at the varying credentials. (Kendall, Silk, & Chu, 2000, p. 41)

Here, I introduce why I did what I did.

Figure 1.1 helps to explain what happens if you mix math and children.

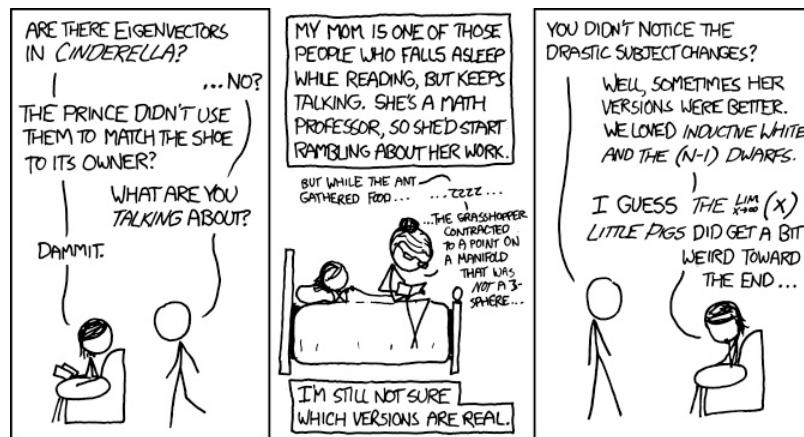


Figure 1.1. A funny caption used to lighten the mood while writing a dissertation.

Here is an example of a table in text with a footnote. You need to sure to reference Table 1.1 prior to the table appearing the document.

Table 1.1

Summary of ANOVA by effect size estimates with partial- ω^2

Effect	CFI	TLI	RMSEA	SRMRW	SRMRB
N ₁	0.084	0.084	0.163	0.658	0.179
N ₂	0.028	0.029	0.023	0.666	0.581
ICC _O	0.011	0.011	0.140	0.159	0.364
ICC _L	0.010	0.010	0.008	0.042	0.138
Model	0.418	0.417	0.600	0.770	0.078
Estimator	0.051	0.051	0.261	0.449	0.191
N ₁ :N ₂	0.076	0.076	0.060	0.281	0.023
N ₁ :ICC _O	0.010	0.011	0.005	0.000	0.140
N ₁ :ICC _L	0.001	0.001	0.009	0.005	0.043
N ₁ :Model	0.002	0.002	0.010	0.113	0.002
N ₁ :Estimator	0.004	0.004	0.004	0.015	0.000
N ₂ :ICC _O	0.003	0.003	0.020	0.010	0.018
N ₂ :ICC _L	0.012	0.012	0.005	0.007	0.058
N ₂ :Model	0.007	0.007	0.043	0.097	0.005
N ₂ :Estimator	0.072	0.072	0.149	0.074	0.010
ICC _O :ICC _L	0.007	0.007	0.008	0.001	0.117
ICC _O :Model	0.016	0.016	0.062	0.006	0.023
ICC _O :Estimator	0.014	0.014	0.042	0.085	0.001
ICC _L :Model	0.040	0.040	0.068	0.017	0.050
ICC _L :Estimator	0.029	0.029	0.002	0.108	0.008
Model:Estimator	0.043	0.043	0.065	0.026	0.004

Note. The meaning of each value can be interpreted as follows. For example, for the effect of level-1 sample size (N₁), 8.4% of the variability in observed CFI scores can be attributed to the number of level-1 units were sampled per group after controlling for all other design factors (i.e., N₂, ICC_O, ICC_L, and bivariate interactions).

CHAPTER TWO

Manuscript 1

Abstract

Background

We know

$$\lim_{x \rightarrow 8} \frac{1}{x - 8} = \infty \quad (2.1)$$

Thus, by induction from 2.1, this must also be the case

$$\lim_{x \rightarrow 5} \frac{1}{x - 5} = \infty \quad (2.2)$$

A path model for this study's hypotheses is given in Figure 2.1.

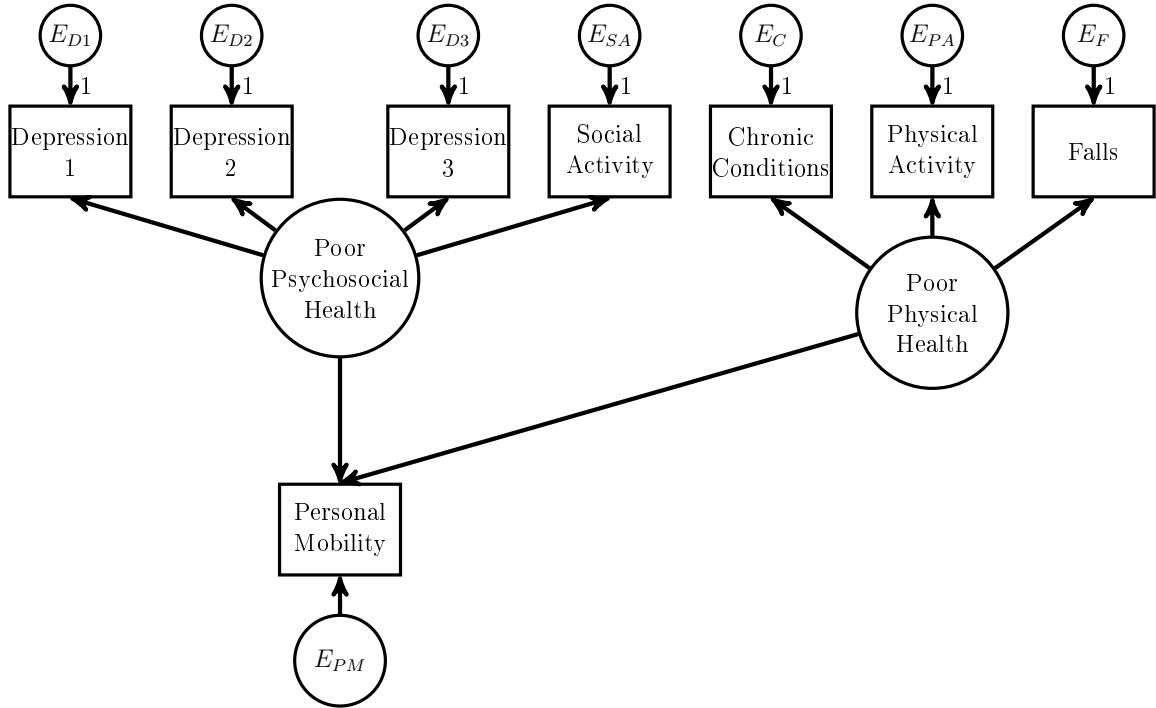


Figure 2.1. Path model of variable relationships. Model adapted from Umstattd-Meyer, Janke, and Beaujean (2014).

Method

Participants

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Sample size determination. You will likely learn much by looking at some well written sources on power and sample size (e.g., Aguinis, Beaty, Boik, & Pierce, 2005; Hedges & Rhoads, 2010; Kelley, Maxwell, & Rausch, 2003; Kraemer, Mintz, Noda, Tinklenberg, & Yesavage, 2006; Muthén & Muthén, 2002). Beaujean (2014) provides a demonstration of sample size determination using **R**.

Measures

Make sure you have selected instruments that are appropriate for your research questions and sample (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999; Hunsley & Mash, 2011).

Research Design

There are many publications written on how to conduct strong research (e.g., Murnane & Willett, 2011; Odom et al., 2005; Shadish, Cook, & Campbell, 2002; Smith, 2012; Stuart & Rubin, 2007; West, Biesanz, & Pitts, 2000). You would wise to consult them before writing your proposal.

Interventions. Describe the interventions, if one was used in your study.

Procedure

Results

Make sure you have consulted Cooper (2011) and American Psychological Association (2010) before writing this section. You will likely find Nicol and Pexman (2010a) helpful as well.

Participants

Recruitment.

Attrition.

Table 2.1 contains the description of the sample.

Statistics and Data Analysis

Missing Data.

If you had missing data, and used a default method in SPSS for handling the missing data, you likely did something wrong (Enders, 2011; Peugh & Enders, 2004; Wilkinson & American Psychological Association Science Directorate Task Force on Statistical Inference, 1999).

Table 2.1

Demographic Characteristics of Participants (N=431)

Characteristic	<i>n</i>	%
Age at time of survey (years)		
20-29	244	24
30-29	5324	52
40-29	132	13
50-29	112	11
Highest education level completed (years)		
High school ^a	245	24
Undergraduate school	441	43
Graduate school	133	13
Professional school	203	20

Note. Totals of percentages are not 100 for every characteristic because of rounding. Table adapted from Nicol and Pexman (2010b, p. 16).

^a This includes one respondent who did not complete high school.

Statistical Software.

The syntax you used to complete your analysis should be given in an appendix. It should be sufficient for an independent scholar to replicate your results exactly, if he or she had your data. This syntax can be placed in an appendix (e.g., Appendix C)

Table 2.2

Model Fit Results for Body Mass Index.

Model	χ^2	<i>df</i>	SRMR	RMSEA	a^2	c^2	e^2	d^2
ACE	< 0.00 ^a	3	0.00	0.00	0.52	0.34	0.14	–
AE	321.46	4	0.09	0.13	0.83	–	0.13	–
CE	1329.95	4	0.07	0.26	–	0.72	0.28	–
E	8761.45	5	0.42	0.59	–	–	1.00	–
ADE	321.46	3	0.09	0.14	0.83	–	0.13	0.00 ^b

Note. Data taken from Neale and Maes (1992). SRMR: standardized root mean square error RMSEA: root mean square error of approximation.

^a $\chi^2 = 0.0000020436$. ^b d parameter had to be constrained to be ≥ 0 .

Discussion

CHAPTER THREE

Manuscript 2

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Background

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Method

Participants

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Sample size determination. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla.

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Research Design

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Results

3.1 gives an example of using a long table.

Table 3.1

A Long Table Example

Variables	Model	χ^2
A	1	21.85
B	2	9.15
C	3	20.58
D	4	0.22
E	5	0.60
F	6	4.56
G	7	1.08
H	8	0.37
I	9	7.77
J	10	8.96
K	11	5.21
L	12	3.85
M	13	3.34
N	14	6.22
O	15	8.11
P	16	4.24
Q	17	0.11
R	18	3.86
S	19	7.32
T	20	2.75
U	21	6.97
V	22	5.98

(continued)

Variables	Model	χ^2
W	23	10.89
X	24	5.61
Y	25	3.51
Z	26	7.17

NOTE: There is another long table in Appendix D as an extended example.

Participants

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Here is another example of a figure included in text. Figure 3.1 shows you how to include a note under a figure and still get the caption to be the correct length on the figure list page. This is done by putting the caption you want to appear on the list page in square brackets [.] then putting the full caption with the note in the curly brackets. This stupid process is needed so that the note aligns with the caption correctly.

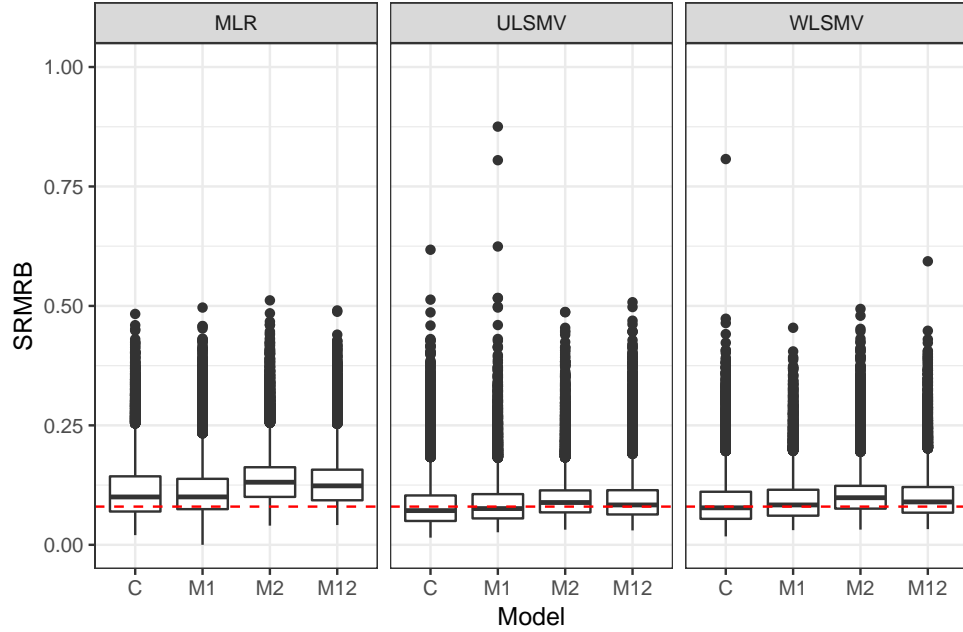


Figure 3.1. Distribution of SRMRB across estimated models and estimators.
Note. Dashed (red) line represents the Hu & Bentler (1999) commonly reported cut-off for SRMR at .08. We fixed the range to be 0,1 for viewing purposes; however, the max value we observed was 8.49.

Statistics and Data Analysis

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Discussion

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CHAPTER FOUR

Conclusion

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CHAPTER FIVE

Discussion

Only needed for traditional dissertation format.

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APPENDICES

APPENDIX A

IRB Approval

APPENDIX B

Instruments

APPENDIX C

R Syntax for Analyses

```
# Descriptive Statistics
uno<-paste("I", "Think", "Dr. Beaujean")
dos<-paste("is", "the", "best", "prof", "evah!")
cat(uno, dos)

# Latent variable model
library(lavaan)
baseline.model <- '
LV1 =~ a*A + b*B + c*C + d*D
,
baseline.fit <- cfa(baseline.model, data=data.dat)
```

APPENDIX D

Convergence Across Conditions

This sections contains the breakdown of convergence rates across all conditions, models, and estimators. *Example of a multipage table.*

Table D.1

Convergence Across All Conditions, Models, and Estimators

Model	Estimator	N ₁	N ₂	ICC _L = .1			ICC _L = .5		
				.1	.3	.5	.1	.3	.5
C	MLR	5	30	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	5	50	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	5	100	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	5	200	1.000	1.000	1.000	1.000	1.000	0.998
C	MLR	10	30	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	10	50	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	10	100	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	10	200	1.000	0.998	1.000	1.000	1.000	1.000
C	MLR	30	30	1.000	1.000	1.000	1.000	1.000	1.000
C	MLR	30	50	1.000	1.000	1.000	1.000	0.998	1.000
C	MLR	30	100	1.000	1.000	1.000	1.000	0.996	1.000
C	MLR	30	200	1.000	1.000	1.000	1.000	0.996	1.000
C	ULSMV	5	30	0.998	0.998	0.966	1.000	1.000	0.976
C	ULSMV	5	50	1.000	1.000	0.998	1.000	1.000	1.000
C	ULSMV	5	100	1.000	1.000	1.000	1.000	1.000	1.000
C	ULSMV	5	200	1.000	1.000	1.000	1.000	1.000	1.000
C	ULSMV	10	30	1.000	1.000	0.998	1.000	1.000	0.996
C	ULSMV	10	50	1.000	1.000	1.000	0.998	1.000	1.000
C	ULSMV	10	100	1.000	1.000	1.000	1.000	1.000	1.000
C	ULSMV	10	200	1.000	1.000	1.000	1.000	1.000	1.000
C	ULSMV	30	30	1.000	1.000	1.000	1.000	1.000	0.998
C	ULSMV	30	50	1.000	1.000	1.000	1.000	1.000	1.000
C	ULSMV	30	100	1.000	1.000	1.000	1.000	1.000	1.000
C	ULSMV	30	200	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	5	30	0.992	1.000	0.998	1.000	1.000	0.996
C	WLSMV	5	50	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	5	100	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	5	200	1.000	1.000	1.000	1.000	1.000	1.000

(continued)

Model	Estimator	N_1	N_2	$ICC_L = .1$			$ICC_L = .5$		
				.1	.3	.5	.1	.3	.5
C	WLSMV	10	30	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	10	50	1.000	1.000	1.000	0.998	1.000	1.000
C	WLSMV	10	100	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	10	200	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	30	30	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	30	50	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	30	100	1.000	1.000	1.000	1.000	1.000	1.000
C	WLSMV	30	200	1.000	1.000	1.000	1.000	1.000	1.000
M1	MLR	5	30	0.980	0.972	0.956	1.000	0.996	0.988
M1	MLR	5	50	0.992	0.972	0.958	0.998	1.000	0.996
M1	MLR	5	100	0.982	0.972	0.942	1.000	1.000	0.996
M1	MLR	5	200	0.996	0.978	0.942	1.000	1.000	1.000
M1	MLR	10	30	0.992	0.974	0.932	1.000	1.000	0.992
M1	MLR	10	50	0.990	0.954	0.926	1.000	1.000	1.000
M1	MLR	10	100	0.992	0.964	0.924	1.000	1.000	1.000
M1	MLR	10	200	0.992	0.992	0.940	1.000	1.000	1.000
M1	MLR	30	30	0.984	0.956	0.894	1.000	1.000	0.994
M1	MLR	30	50	0.990	0.966	0.908	1.000	1.000	0.996
M1	MLR	30	100	0.994	0.986	0.928	1.000	1.000	1.000
M1	MLR	30	200	1.000	0.994	0.932	1.000	0.998	1.000
M1	ULSMV	5	30	0.924	0.892	0.866	0.980	0.970	0.938
M1	ULSMV	5	50	0.932	0.916	0.916	0.998	0.996	0.988
M1	ULSMV	5	100	0.966	0.942	0.938	1.000	1.000	1.000
M1	ULSMV	5	200	0.986	0.960	0.962	1.000	1.000	1.000
M1	ULSMV	10	30	0.948	0.898	0.938	0.998	0.996	0.984
M1	ULSMV	10	50	0.956	0.936	0.932	0.998	1.000	0.990
M1	ULSMV	10	100	0.980	0.958	0.958	1.000	1.000	1.000
M1	ULSMV	10	200	1.000	0.976	0.952	1.000	1.000	1.000
M1	ULSMV	30	30	0.982	0.940	0.932	1.000	1.000	0.990
M1	ULSMV	30	50	0.992	0.964	0.948	1.000	1.000	1.000
M1	ULSMV	30	100	1.000	0.984	0.954	1.000	1.000	1.000
M1	ULSMV	30	200	1.000	0.986	0.972	0.998	1.000	1.000
M1	WLSMV	5	30	0.866	0.842	0.866	0.968	0.960	0.920
M1	WLSMV	5	50	0.892	0.904	0.898	0.996	0.990	0.968
M1	WLSMV	5	100	0.954	0.946	0.932	1.000	1.000	0.992
M1	WLSMV	5	200	0.984	0.954	0.946	1.000	1.000	1.000
M1	WLSMV	10	30	0.920	0.900	0.880	0.994	0.996	0.978
M1	WLSMV	10	50	0.964	0.932	0.884	0.998	1.000	0.998
M1	WLSMV	10	100	0.984	0.946	0.918	1.000	1.000	1.000
M1	WLSMV	10	200	0.996	0.980	0.940	1.000	1.000	1.000
M1	WLSMV	30	30	0.982	0.934	0.902	1.000	0.994	0.980

(continued)

Model	Estimator	N ₁	N ₂	<i>ICC_L</i> = .1			<i>ICC_L</i> = .5		
				.1	.3	.5	.1	.3	.5
M1	WLSMV	30	50	0.992	0.946	0.914	1.000	1.000	0.998
M1	WLSMV	30	100	0.998	0.974	0.936	1.000	1.000	1.000
M1	WLSMV	30	200	1.000	0.982	0.926	1.000	1.000	1.000
M2	MLR	5	30	1.000	1.000	1.000	1.000	1.000	0.998
M2	MLR	5	50	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	5	100	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	5	200	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	10	30	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	10	50	1.000	1.000	1.000	1.000	1.000	0.998
M2	MLR	10	100	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	10	200	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	30	30	1.000	1.000	1.000	1.000	1.000	1.000
M2	MLR	30	50	1.000	1.000	1.000	1.000	0.996	1.000
M2	MLR	30	100	1.000	1.000	1.000	1.000	0.998	1.000
M2	MLR	30	200	1.000	1.000	1.000	1.000	0.996	1.000
M2	ULSMV	5	30	0.998	0.994	0.968	0.938	0.934	0.914
M2	ULSMV	5	50	1.000	1.000	1.000	0.982	0.966	0.944
M2	ULSMV	5	100	1.000	1.000	1.000	0.998	0.988	0.970
M2	ULSMV	5	200	1.000	1.000	1.000	1.000	1.000	0.996
M2	ULSMV	10	30	1.000	1.000	0.990	0.980	0.940	0.944
M2	ULSMV	10	50	1.000	1.000	1.000	0.992	0.982	0.956
M2	ULSMV	10	100	1.000	1.000	1.000	0.998	0.998	0.978
M2	ULSMV	10	200	1.000	1.000	1.000	1.000	1.000	0.998
M2	ULSMV	30	30	1.000	1.000	1.000	0.988	0.962	0.934
M2	ULSMV	30	50	1.000	1.000	1.000	0.992	0.988	0.972
M2	ULSMV	30	100	1.000	1.000	1.000	0.998	0.992	0.982
M2	ULSMV	30	200	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	5	30	0.994	0.996	0.998	0.998	1.000	0.998
M2	WLSMV	5	50	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	5	100	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	5	200	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	10	30	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	10	50	1.000	1.000	1.000	0.998	1.000	1.000
M2	WLSMV	10	100	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	10	200	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	30	30	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	30	50	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	30	100	1.000	1.000	1.000	1.000	1.000	1.000
M2	WLSMV	30	200	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	5	30	1.000	1.000	0.998	1.000	1.000	1.000
M12	MLR	5	50	1.000	1.000	1.000	1.000	1.000	1.000

(continued)

Model	Estimator	N ₁	N ₂	<i>ICC_L</i> = .1			<i>ICC_L</i> = .5		
				.1	.3	.5	.1	.3	.5
M12	MLR	5	100	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	5	200	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	10	30	1.000	0.998	1.000	1.000	1.000	0.998
M12	MLR	10	50	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	10	100	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	10	200	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	30	30	1.000	1.000	1.000	1.000	0.994	1.000
M12	MLR	30	50	1.000	1.000	1.000	1.000	0.996	1.000
M12	MLR	30	100	1.000	1.000	1.000	1.000	1.000	1.000
M12	MLR	30	200	1.000	1.000	1.000	1.000	1.000	1.000
M12	ULSMV	5	30	0.976	0.952	0.946	0.942	0.940	0.906
M12	ULSMV	5	50	0.988	0.988	0.978	0.974	0.964	0.942
M12	ULSMV	5	100	0.998	1.000	0.998	0.996	0.988	0.958
M12	ULSMV	5	200	1.000	1.000	1.000	1.000	1.000	0.996
M12	ULSMV	10	30	0.990	0.990	0.980	0.970	0.952	0.938
M12	ULSMV	10	50	0.998	1.000	1.000	0.994	0.986	0.952
M12	ULSMV	10	100	1.000	1.000	1.000	0.998	0.998	0.972
M12	ULSMV	10	200	1.000	1.000	1.000	1.000	1.000	0.998
M12	ULSMV	30	30	1.000	1.000	1.000	0.992	0.968	0.924
M12	ULSMV	30	50	1.000	1.000	1.000	0.992	0.982	0.962
M12	ULSMV	30	100	1.000	1.000	1.000	1.000	0.992	0.986
M12	ULSMV	30	200	1.000	1.000	1.000	1.000	1.000	0.998
M12	WLSMV	5	30	0.926	0.938	0.942	0.976	0.972	0.954
M12	WLSMV	5	50	0.964	0.974	0.976	0.994	0.980	0.984
M12	WLSMV	5	100	0.996	1.000	1.000	1.000	1.000	0.994
M12	WLSMV	5	200	1.000	1.000	1.000	1.000	1.000	1.000
M12	WLSMV	10	30	0.982	0.986	0.964	0.994	0.992	0.980
M12	WLSMV	10	50	0.998	1.000	0.998	0.998	1.000	0.996
M12	WLSMV	10	100	1.000	1.000	1.000	1.000	1.000	1.000
M12	WLSMV	10	200	1.000	1.000	1.000	1.000	1.000	1.000
M12	WLSMV	30	30	1.000	0.998	0.982	1.000	0.994	0.988
M12	WLSMV	30	50	1.000	1.000	1.000	1.000	1.000	1.000
M12	WLSMV	30	100	1.000	1.000	1.000	1.000	1.000	1.000
M12	WLSMV	30	200	1.000	1.000	1.000	1.000	1.000	1.000

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