

# DAVID KAPLAN, Ph.D.

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Open Science Framework page: <https://osf.io/js59x/>

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## Current Research Interests

- Bayesian statistical methods
- Bayesian multi-model inference
- Probabilistic forecasting
- Methodology of large-scale educational assessments

## Education

- Ph.D. (Education), UCLA, 1987
- M.A. (Education), UCLA, 1983
- B.A. (Psychology, cum laude), California State University, Northridge, 1978

## Positions Held

- July 2024 – Present: Richard L. Venezky Wisconsin Alumni Research Foundation Professor of Educational Psychology, University of Wisconsin - Madison
- July 2024 – Present: Hilldale Professor, University of Wisconsin - Madison
- 2015 - 2024: Patricia Busk Professor of Quantitative Methods, Department of Educational Psychology, University of Wisconsin-Madison
- 2012 – 2015: Chair, Department of Educational Psychology, University of Wisconsin-Madison.
- 2006 – Present: Professor, Department of Educational Psychology, University of Wisconsin-Madison.
- 1987 – 2006: Assistant, Associate, and Full Professor, School of Education, University of Delaware.

## University of Wisconsin Center and Department Affiliations

- Center for Demography and Ecology
- Department of Population Health Sciences
- Nelson Institute for Environmental Studies

## Research Fellowships and Visiting Professorships

- International Guest Professor, Institut für Bildungswissenschaft, Universität Heidelberg (January - June, 2023).
- Max Kade Visiting Professor, Institut für Bildungswissenschaft, Universität Heidelberg (Sept. 1, 2021 – Dec. 28, 2021)
- Research Affiliate, Leibniz Institute for Educational Trajectories (LifBi), Bamberg, Germany, (2019 – Present)
- Visiting Scholar, Luxembourg Institute for Socio-Economic Research, Beval, Luxembourg, (January 4th - January 20th, 2019).
- Johann Baptist von Spix International Visiting Professor, Department of Statistics and Econometrics, Universität Bamberg, (June 1 – July 31, 2018.)
- Visiting Professor, GESIS - Leibniz Institute for Social Science Research, Mannheim, Germany, (November 6 – 10, 2017).
- Research Fellow: DIPF - Leibniz Institute for Research and Information in Education, Frankfurt am Main, Germany (2016 – 2020).
- Honorary Research Fellow, Department of Education, University of Oxford (2015–2020).
- Fellow, American Psychological Association (Division 5, elected in 2010).
- Jeanne Griffith Fellow, National Center for Education Statistics, Washington, DC. (2001 – 2002).

## Honors and Awards

- President, Psychometric Society, July, 2023 - July, 2024
- Hilldale Award in the Social Sciences, University of Wisconsin – Madison (2020)
- Samuel J. Messick Award for Distinguished Scientific Contributions (APA, Division 5), 2018.
- President, Society of Multivariate Experimental Psychology (2017 – 2018).
- Faculty Distinguished Achievement Award, School of Education, University of Wisconsin – Madison (2016).
- Elected Member: National Academy of Education (Elected in 2015)
- Humboldt Research Award, Alexander von Humboldt Foundation (2015 – 2016).
- Kellett Mid-Career Award, University of Wisconsin - Madison (2012).
- Vilas Associate Award, University of Wisconsin-Madison (2008 – 2010).
- Distinguished Faculty Award, School of Education, University of Delaware (2006).

- AERA Publications Committee Award for Outstanding Reviewing, *Journal of Educational and Behavioral Statistics* (awarded in 2003, 2004, and 2006).
- Elected Member, Society for Multivariate Experimental Psychology (Elected in 2001).

### Funded Research, Contracts, and Training Grants

1. **Principal Investigator** Institute of Education Sciences (#R305D220012). Bayesian Probabilistic Forecasting with International Large-Scale Assessments. 2022-2025. Amount: \$896,582. Co-PI: Nina Jude.
2. **Principal Investigator** Organization for Economic Cooperation and Development (EDU/500103553). Reanalysis of TALIS data from a Bayesian Perspective, 2022. Amount: €10,000
3. **Principal Investigator** Institute of Education Sciences (#R305D190053). Bayesian dynamic borrowing: A method for utilizing historical data in education research. 2019-2022. Amount: \$802,314. Co-PI: Jianshen Chen.
4. **Principal Investigator** National Center for Education Statistics/American Institutes for Research (NAEP Cooperative Agreements Program # ED-IES-12-D-0002). Utilizing State NAEP data for probabilistic prediction: A Bayesian approach. May – December, 2019. Amount: \$20,000.
5. **Principal Investigator** International Association for the Evaluation of Educational Achievement. Development and Application of Cross-Country Growth Regressions using TIMSS. 2017–2018. Amount: \$15,000. Co-PI: Agnes Stancel-Piątak
6. **Principal Investigator** Institute of Education Sciences (#R305D110001). Bayesian Inference for Experimental and Observational Studies in Education. 2011-2014. Amount: \$566,397.
7. **Principal Investigator** Organization for Economic Cooperation and Development (EDU/JA00066381). Statistical matching of PISA and TALIS. 2011. Amount: €10,000, Co-PI: Alyn Turner.
8. **Co-Investigator** National Institute on Deafness and Other Communication Disorders (#2R01DC002932-10A2). Longitudinal Study of Vocabulary Growth and Phonological Development. 2011-2016. Amount: \$3,172,209. PI: Jan Edwards, Co-PIs: Mary E. Beckman, Benjamin R. Munson.
9. **Co-Principal Investigator** Institute of Education Sciences (#R324A090221). Validating Universal Screening and Progress Monitoring Instruments for Use with ELLs in Response-to-Intervention Models. 2010-2014. Amount: \$1,600,000. PI: Craig A. Albers, Co-PI: Thomas Kratochwill.
10. **Core Faculty** Institute of Education Sciences. Postdoctoral Training Program in Mathematical Thinking, Learning, and Instruction. 2010-2014. Amount: \$655,000. Training Director: Mitchell Nathan; Other core faculty: Martha Alibali, Amy Ellis, Charles Kalish, Eric Knuth.

11. **Co-Principal Investigator** Institute of Education Sciences (U.S. Department of Education). Evidence Reviews for What Works Clearinghouse (Mathematica Policy Research, prime contractor). 2007-2011. Amount: \$1,377,286. PI: Adam Gamoran.
12. **Principal Investigator** National Science Foundation (# REC-0404914). Developing Statistical Models for the Diffusion of Educational Policies and Interventions. 2004-2006. Amount: \$100,351.
13. **Co-Principal Investigator** National Institute of Child Health and Human Development (#R01-HD36672). A developmental study of mathematics disabilities (Competitive renewal). 2003-2008. Amount: \$1,687,000. PI: Nancy Jordan.
14. **Co-Principal Investigator** National Institute of Child Health and Human Development (#R01-HD36672). A developmental study of mathematics disabilities. 1999-2002. Amount: \$449,216. PI: Nancy Jordan.
15. **Principal Investigator** The Spencer Foundation. Developing longitudinal statistical models for education policy. 1998-2001. Amount: \$125,000.
16. **Co-Principal Investigator** U.S. Department of Education, OERI National Institute on Educational Governance, Finance, Policy-Making and Management (OERI # R308F60010). A National Study of the Effects of School Choice on Achievement and Opportunity. 1996-1998. Amount: \$419,926. PI: Douglas Archbald; Co-PI: Yassar Nakib.
17. **Principal Investigator** National Science Foundation (# REC-9550472). Model-based indicator systems for informing science education policy. 1995-1997. Amount: \$168,516.
18. **Co-Principal Investigator** U.S. Department of Education, OERI National Center on Adult Literacy. Project title: Studies of adult literacy skills and assessment. 1994-1995. Amount: \$260,000. PI: Richard L. Venezky.
19. **Principal Investigator** University of Delaware International Programs and Special Sessions International Travel Grant. Project Title: Modeling School Effectiveness in Israeli Schools. 1995. Amount: \$2,200.
20. **Principal Investigator** American Educational Research Association (NSF # RED-9255347). Project title: Quantitative approaches to educational policy analysis utilizing multilevel structural equation modeling. 1993-1994. Amount: \$15,000.
21. **Principal Investigator** U.S. Department of Education, OERI National Center on Adult Literacy. Project title: Models of literacy and literacy related behaviors. 1991-1992. Amount: \$53,242.
22. **Principal Investigator** University of Delaware General University Research Grant. Project title: Specification error issues in multiple populations. 1988-1989. Amount: \$5,000.

### **Books and Edited Volumes**

1. Kaplan, D. (2023). *Bayesian Statistics for the Social Sciences (2nd Edition)*. New York: Guilford Press.

2. Kuger, S., Klieme, E., Jude, N. & Kaplan, D. (Eds.) (2016). *Assessing Contexts of Learning: An International Perspective*. Heidelberg, Springer.
3. Kaplan, D. (2014). *Bayesian Statistics for the Social Sciences*. New York: Guilford Press.
4. Kaplan, D. (2009). *Structural Equation Modeling: Foundations and Extensions (2nd Edition)*. Newbury Park, CA: SAGE Publications.
5. Kaplan, D. (Ed.) (2004). *The SAGE Handbook of Quantitative Methodology in the Social Sciences*. Newbury Park, CA: SAGE Publications.
6. Kaplan, D. (2000). *Structural Equation Modeling: Foundations and Extensions*. Newbury Park, CA: Sage Publications.

### Peer Reviewed Publications

1. Huang, M. & Kaplan, D. (2024). Predictive performance of Bayesian stacking in multilevel education data. *Journal of Educational and Behavioral Statistics*, DOI: 10.3102/10769986241255969.
2. Nold, M. & Meinfelder, F. & Kaplan, D. (2024). On the improvement of predictive modeling using Bayesian stacking and posterior predictive checking. arXiv:2402.19046v1.
3. Kaplan, D. & Harra, K. (2024). A Bayesian workflow for the analysis and reporting of international large-scale assessments: A case study using the OECD Teaching and Learning International Survey. *Large-Scale Assessments in Education*. <https://doi.org/10.1186/s40536-023-00189-1>
4. Harra, K., & Kaplan, D. (2023). On the performance of horseshoe priors for inducing sparsity in structural equation models. *Structural Equation Modeling*. <https://doi.org/10.1080/10705511.2023.2280895>
5. Larson, C., Kaplan, D., Girolamo, T., Kover, S. T., & Eigsti, I.-M. (2023). A Bayesian statistics tutorial for clinical research: Prior distributions and meaningful results for small clinical samples. *Journal of Clinical Psychology*. <https://doi.org/10.1002/jclp.23570>
6. Larson, C., Mathée-Scott, J., Kaplan, D., & Ellis Weismer, S. (2023). Cognitive processes associated with working memory in children with developmental language disorder. *Journal of Experimental Child Psychology*, 234, <https://doi.org/10.1016/j.jecp.2023.105709>.
7. Kaplan, D. Chen, J. Lyu, W. & Yavuz, S. (2023). Bayesian historical borrowing with longitudinal large-scale assessments. *Large-Scale Assessments in Education*. <https://doi.org/10.1186/s40536-022-00140-w>
8. Hall, G. J., Kaplan, D. & Albers, C. A. (2022). Capturing multiple sources of change on triannual math screeners in elementary school. *Learning Disabilities Research & Practice*. DOI: 10.1111/ldrp.12296
9. Kaplan, D., Chen, J., Yavuz, S., & Lyu, W. (2022). Bayesian dynamic borrowing of historical information with applications to the analysis of large-scale assessments. *Psychometrika*. <https://doi.org/10.1007/s11336-022-09869-3>

10. Kaplan, D. & Huang, M. (2021). Bayesian probabilistic forecasting with large-scale educational trend data: A case study using NAEP. *Large-Scale Assessments in Education*, 9, <https://doi.org/10.1186/s40536-021-00108-2>.
11. Kaplan, D. (2021). On the quantification of model uncertainty: A Bayesian perspective. *Psychometrika*, 86, 215–238. <https://doi.org/10.1007/s11336-021-09754-5>
12. Larson, C., Kaplan, D., Kaushanskaya, M., & Ellis Weismer, S. (2020). Language and inhibition: Predictive relationships in children with language impairment relative to typically developing peers. *Journal of Speech, Language, and Hearing Research*. <https://doi.org/10.1044/2019-JSLHR-19-00210>.
13. Kaplan, D. & Yavuz, S. (2019). An approach to addressing multiple imputation model uncertainty using Bayesian model averaging. *Multivariate Behavioral Research*. <https://doi.org/10.1080/00273171.2019.1657790>
14. Kaplan, D. & Su, D. (2018). On imputation for planned missing data in context questionnaires using plausible values: A comparison of three designs. *Large-Scale Assessments in Education*. <https://doi.org/10.1186/s40536-018-0059-9>
15. Park, S., Steiner, P., & Kaplan, D. (2018). Identification and sensitivity analysis for average causal mediation effects with time-varying treatments and mediators: Investigating the underlying mechanisms of kindergarten retention policy. *Psychometrika*, 83, 298–320. doi: <https://doi.org/10.1007/s11336-018-9606-0>
16. Kaplan, D. & Lee, C. (2018). Optimizing prediction using Bayesian model averaging: Examples using large-scale educational assessments. *Evaluation Review*. DOI: 10.1177/0193841X18761421
17. Lee, Y. & Kaplan, D. (2018). Generating multivariate ordinal data via entropy principles. *Psychometrika*, 83, 156–181. <https://doi.org/10.1007/s11336-018-9603-3>
18. Kaplan, D. (2016). Causal inference with large-scale assessments in education: A Bayesian perspective. *Large-Scale Assessments in Education*, 4, doi: 10.1186/s40536-016-0022-6
19. Kaplan, D. & Su, D. (2016). On matrix sampling and imputation of context questionnaires with implications for the generation of plausible values in large-scale assessments. *Journal of Educational and Behavioral Statistics*, 41, 57–80. doi: 10.3102/1076998615622221
20. Kuger, S., Kluczniok, K., Kaplan, D., & Roßbach, H-G. (2015). Stability and patterns of classroom quality in German early childhood education and care. *School Effectiveness and School Improvement*. doi: 10.1080/09243453.2015.1112815
21. Kaplan, D. & Lee, C. (2015). Bayesian model averaging over directed acyclic graphs with implications for the predictive performance of structural equation models. *Structural Equation Modeling*. doi:10.1080/10705511.2015.1092088
22. Park, S. & Kaplan, D. (2015) Bayesian causal mediation analysis for group randomized designs with homogenous and heterogenous treatment effects: Simulation and Case Study. *Multivariate Behavioral Research*, 50, 316–333.

23. Chen, J. & Kaplan, D. (2015). Covariate balance in a two-step Bayesian propensity score approach for observational studies. *Journal of Research on Education Effectiveness*, 8, 280–302.
24. Kaplan, D. & Chen, J. (2014). Bayesian model averaging for propensity score analysis. *Multivariate Behavioral Research*, 49, 505–517.
25. Edwards, J., Gross, M., Chen, J., MacDonald, M. C., Kaplan, D., Brown, M. & Seidenberg, M. S. (2014). Dialectical awareness and lexical comprehension of mainstream American English in African American and English-speaking children. *Journal of Speech, Language, and Hearing Research*, 57, 1883–1895.
26. van de Schoot, R., Kaplan, D., Denissen, J., Asendorpf, J. B., Neyer, F. J. & van Aken, M. A. G. (2013). A gentle introduction to Bayesian analysis: Applications to developmental research. *Child Development*. DOI: 10.1111/cdev.12169
27. Kaplan, D. & McCarty, A. T. (2013). Data fusion with international large-scale assessments: A case study using the OECD PISA and TALIS surveys. *Large-scale Assessments in Education*, 1:6, doi: 10.1186/2196-0739-1-6.
28. Hazzah, L., Dolrenry, S., Kaplan, D. & Frank, L. (2013) The influence of park access during drought on attitudes toward wildlife and lion killing behavior in Maasailand, Kenya. *Environmental Conservation*. doi:10.1017/S0376892913000040
29. Valdez, C. R., Mills, M. T., Bohlig, A. J., & Kaplan, D. (2012). The Role of Parental Language Acculturation in the Formation of Social Capital: Differential Effects on High-risk Children. *Child Psychiatry and Human Development*, 44, 334–350. Published online: DOI 10.1007/s10578-012-0328-8.
30. Kaplan, D. & Chen, J. (2012). A two-step Bayesian approach for propensity score analysis: Simulations and case study. *Psychometrika*, 77, 581–609. Published online. DOI: 10.1007/S11336-012-9262-8. Erratum pg. 610.
31. Poehlmann, J., Schwichtenberg, AJ Miller, Hahn, E., Miller, K. Dilworth-Bart, J., Kaplan, D. & Maleck, S. (2012). Compliance, opposition, and behavior problems in toddlers born preterm or lower birthweight. *Infant Mental Health Journal*, 33, 34–44.
32. Kaplan, D., & Keller, B. (2011). A note on cluster effects in latent class analysis. *Structural Equation Modeling*, 18, 525–536.
33. Kaplan, D., & Depaoli, S. (2011). Two studies of specification error in models for categorical latent variables. *Structural Equation Modeling*, 18, 397–418.
34. Jordan, N. C., Kaplan, D., Ramineni, C., & Locuniak, M. N. (2009) Early math matters: Kindergarten number competence and later mathematics outcomes. *Developmental Psychology*, 45, 850–867.

35. Jordan, N. C., Kaplan, D., Ramineni, C., & Locuniak, M. N. (2008). Development of number combination skill in the early school years: When do fingers help? *Developmental Science*, *11*, 662-668.
36. Kaplan, D. (2008). An overview of Markov chain methods for the study of stage-sequential developmental processes. *Developmental Psychology*, *44*, 457-467.
37. Kaplan, D. (2008). Univariate and multivariate autoregressive time series models of offensive baseball performance: 1901–2005. *Journal of Quantitative Analysis in Sports*.  
<http://www.bepress.com/jqas/vol4/iss3/6>
38. Jordan, N. C., Kaplan, D., Locuniak, M. N. & Ramineni, C. (2007). Predicting first-grade math achievement from developmental number sense trajectories. *Learning Disabilities, Research & Practice*, *22*, 37-47.
39. Jordan, N. C., Kaplan, D., Nabors-Oláh, L., & Locuniak, M. N. (2006). Number sense growth in kindergarten: A longitudinal investigation of children at risk for mathematics difficulties. *Child Development*, *77*, 153-175.
40. Kaplan, D. (2006). A variance decomposition of offensive baseball performance. *Journal of Quantitative Analysis in Sports*. <http://www.bepress.com/jqas/vol2/iss3/2>
41. Kaplan, D. & Walpole, S. (2005). A stage-sequential model of reading transitions: Evidence from the Early Childhood Longitudinal Study. *Journal of Educational Psychology*, *97*, 551-563.
42. Kaplan, D. (2005). Finite Mixture Dynamic Regression Modeling of Panel Data with Implications for Dynamic Response Analysis. *Journal of Educational and Behavioral Statistics*, *30*, 169-187.
43. Archbald, D. A. & Kaplan, D. (2004). Parent choice versus attendance area assignment to schools: Does magnet-based school choice affect NAEP scores? *International Journal of Educational Policy, Research & Practice*, *5*, 3-35.
44. Jordan, N. C., Hanich, L. B., & Kaplan, D. (2003). Arithmetic Fact Mastery in Young Children: A Longitudinal Investigation. *Journal of Experimental Child Psychology*, *85*, 103-119.
45. Jordan, N. C., Hanich, L. B., & Kaplan, D. (2003). A longitudinal study of mathematical competencies in children with specific mathematics difficulties versus children with co-morbid mathematics and reading difficulties. *Child Development*, *74*, 834-850.
46. Kaplan, D. (2002). Methodological advances in the analysis of individual growth with relevance to education policy. *Peabody Journal of Education*, *77*, 189-215.
47. Jordan, N. C., Kaplan, D., & Hanich, L. B. (2002) Achievement growth in children with learning difficulties in mathematics: Findings of a two-year longitudinal study. *Journal of Educational Psychology*, *94*, 586-597.
48. Kaplan, D. (2002). Modeling Sustained Educational Change With Panel Data: The Case for Dynamic Multiplier Analysis. *Journal of Educational and Behavioral Statistics*, *27*, 85-103.



49. Hanich, L. B., Jordan, N. C., Kaplan, D., & Dick, J. (2001). Performance across different areas of mathematical cognition in children with learning difficulties. *Journal of Educational Psychology, 93*, 615-626.
50. Kaplan, D., & Kreisman, M. B. (2000). On the validation of indicators of mathematics education using TIMSS: An application of multilevel covariance structure modeling. *International Journal of Educational Policy, Research, and Practice, 1*, 217-242.
51. Kaplan, D. (1999). An extension of the propensity score adjustment method for the analysis of group differences in MIMIC models. *Multivariate Behavioral Research, 34*, 467-492.
52. Kaplan, D. & Ferguson, A. J. (1999). On the utilization of sample weights in latent variable models. *Structural Equation Modeling, 6*, 305-321.
53. Kaplan, D., & George, R. (1998). Evaluating latent variable growth models through ex post simulation. *Journal of Educational and Behavioral Statistics, 23*, 216-235.
54. George, R., & Kaplan, D. (1998). A structural model of parent and teacher influences on the science attitudes of eighth graders: Evidence from NELS:88. *Science Education, 82*, 93-109.
55. Kaplan, D. & Elliott, P. R. (1997). A model-based approach to validating education indicators using multilevel structural equation modeling. *Journal of Educational and Behavioral Statistics, 22*, 323-348.
56. Kaplan, D., & Elliott, P. R. (1997). A didactic example of multilevel structural equation modeling applicable to the study of organizations. *Structural Equation Modeling, 4*, 1-24.
57. Kaplan, D. (1995). The impact of BIB-spiralling induced missing data patterns on goodness-of-fit tests in factor analysis. *Journal of Educational and Behavioral Statistics, 20*, 69-82.
58. Kaplan, D., & George, R. (1995). A study of the power associated with testing factor mean differences under violations of factorial invariance. *Structural Equation Modeling, 2*, 101-118.
59. Kaplan, D., & Venezky, R. L. (1994). Literacy and voting behavior: A bivariate probit model with sample selection. *Social Science Research, 23*, 350-367.
60. Kaplan, D. (1994). Estimator conditioning diagnostics for covariance structure models. *Sociological Methods and Research, 23*, 200-229.
61. Kaplan, D., & Wenger, R. N. (1993). Asymptotic independence and separability in covariance structure models: Implications for specification error, power, and model modification. *Multivariate Behavioral Research, 28*, 483-498.
62. Fromme, K., Stroot, E., & Kaplan, D. (1993). The comprehensive effects of alcohol: Development and psychometric assessment of a new expectancy questionnaire. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 5*, 19-26.
63. Muthén, B., & Kaplan, D. (1992). A comparison of some methodologies for the factor analysis of non-normal Likert variables: A note on the size of the model. *British Journal of Mathematical and Statistical Psychology, 45*, 19-30.

64. Kaplan, D. (1991). The behaviour of three weighted least squares estimators for structured means analysis with non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology*, *44*, 333-346.
65. Kaplan, D. (1991). On the modification and predictive validity of covariance structure models. *Quality and Quantity*, *25*, 307-314.
66. Kaplan, D. (1990). Evaluating and modifying covariance structure models: A review and recommendation. *Multivariate Behavioral Research*, *25*, 137-155. [With commentary]
67. Kaplan, D. (1990). Rejoinder on evaluating and modifying covariance structure models. *Multivariate Behavioral Research*, *25*, 197-204.
68. Kaplan, D. (1990). Contributions to structural modeling of mathematics achievement: Application of categorical variable structural equation methodology. *International Journal of Educational Research*, *14*, 175-192.
69. Lapan, R. T., McGrath, E., & Kaplan, D. (1990). Factor structure of the Basic Interest Scales by gender across time. *Journal of Counseling Psychology*, *37*, 216-222.
70. Kaplan, D. (1989). Model modification in covariance structure analysis: Application of the expected parameter change statistic. *Multivariate Behavioral Research*, *24*, 285-305.
71. Kaplan, D. (1989). Power of the likelihood ratio test in multiple group confirmatory factor analysis under partial measurement invariance. *Educational and Psychological Measurement*, *49*, 579-586.
72. Kaplan, D. (1989). The problem of error rate inflation in covariance structure models. *Educational and Psychological Measurement*, *49*, 333-337.
73. Kaplan, D. (1989). A study of the sampling variability and z-values of parameter estimates from misspecified structural equation models. *Multivariate Behavioral Research*, *24*, 41-57.
74. Kaplan, D. (1988). The impact of specification error on the estimation, testing, and improvement of structural equation models. *Multivariate Behavioral Research*, *23*, 69-86.
75. Muthén, B., Kaplan, D., & Hollis, M. (1987). On structural equation modeling with data that are not missing completely at random. *Psychometrika*, *51*, 431-462.
76. Muthén, B., & Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology*, *38*, 171-189.
77. Riege W. H., Holloway, J. A., & Kaplan, D. (1981). Specific memory deficits associated with prolonged alcohol abuse. *Alcoholism: Clinical and Experimental Research*, *5*, 378-385.

**Book Chapters, Annual Volumes, Conference Proceedings**

1. Depaoli, S., Kaplan, D. & Winter, S. D. (2023). Foundations and extensions of Bayesian structural equation modeling. In Hoyle, R. (ed.), *Handbook of Structural Equation Modeling*, 2nd Edition. New York, Guilford Publications, Inc.
2. Kaplan D., Jude N. (2022). Trend Analysis with International Large-Scale Assessments. In: Nilsen T., Stancel-Piatak A., Gustafsson J-E. (eds.), *International Handbook of Comparative Large-Scale Studies in Education* (pp. 831-844). Springer International Handbooks of Education. Springer, Cham.
3. Kaplan, D. & Kuger, S. (2016). The Methodology of PISA: Past, Present, and Future. In S. Kuger, E. Klieme, N. Jude, & D. Kaplan (eds.), *Assessing Contexts of Learning: An International Perspective*. (pp. 53–73). Heidelberg, Springer.
4. Kuger, S., Klieme, E., Jude, N. & Kaplan, D. (2016). An introduction to the PISA 2015 Questionnaire Field Trial: Study design and analysis procedures. In Kuger, S., Klieme, E., Jude, N. & Kaplan, D. (Eds.), *Assessing Contexts of Learning: An International Perspective*. (pp. 75–113). Heidelberg, Springer.
5. Kaplan, D. (2015). The future of quantitative inquiry in education: Challenges and opportunities. In M. J. Feuer, A. I. Berman, and R. C. Atkinson (eds.), *The past as prologue: The National Academy of Education at 50. Members reflect*. (pp. 109–115). Washington, DC. National Academy of Education.
6. Kaplan, D. & Park, S. (2013). Analyzing international large-scale assessment data within a Bayesian framework. In L. Rutkowski, M. Von Davier, and D. Rutkowski (eds.), *A Handbook of International Large-Scale Assessment: Background, Technical Issues, and Methods of Data Analysis*. London: Chapman Hall/CRC Press.
7. Kaplan, D. & Depaoli, S. (2013). Bayesian statistical methods. In T. D. Little (ed.), *Oxford Handbook of Quantitative Methods*. (pp 407–437). Oxford: Oxford University Press.
8. Kaplan, D. & Depaoli, S. (2012). Bayesian structural equation modeling. In R. Hoyle (ed.), *Handbook of Structural Equation Modeling*. (pp 650–673). New York: Guilford Publications, Inc.
9. Kaplan, D., Kim J-S., & Kim, S-Y. (2009). Multilevel Latent Variable Modeling: Current Research and Recent Developments. In R. E. Millsap and A. Maydeu-Olivares (eds.), *The SAGE Handbook of Quantitative Methods in Psychology*. Newbury Park: SAGE Publications.
10. Kaplan, D. (2009). Causal inference in non-experimental educational policy research. In G. Sykes, B. Schneider., & D. N. Plank (Eds.), *Handbook on Education Policy Research*. (pp. 139–153). New York: Taylor and Francis.
11. Kaplan, D. & Sweetman, H. M. (2006). Finite mixture modeling approaches to the study of growth in academic achievement. In. R. Lissitz (ed.), *Longitudinal and Value Added Models of Student Performance*, (pp. 130–169). Maple Grove, MN. JAM Press.

12. Kaplan, D. & Uribe-Zarain, X. (2005). Time is of the essence: An overview of quantitative methodologies for the study of change. In T. Trabasso, J. Sabatini, D. W. Massaro, & R. C. Calfee (Eds.), *From Orthography to Pedagogy: Essays in Honor of Richard L. Venezky*, (pp. 265-288). Mahwah, NJ: Lawrence Erlbaum Associates.
13. Kaplan, D. (2004). On exogeneity. In D. Kaplan (Ed.). *The Sage Handbook of Quantitative Methodology in the Social Sciences* (pp 407-421). Newbury Park, CA: Sage Publications.
14. Kaplan, D., Harik, P., & Hotchkiss, L. (2000). Cross-sectional Estimation of Dynamic Structural Equation Models in Disequilibrium. In *Structural Equation Modeling Present and Future: A Festschrift in honor of Karl G. Joreskog*. (pp. 315-339). Lincolnwood, IL: Scientific Software International.
15. Venezky, R. L., & Kaplan, D. (1998). Literacy habits and political participation. In M. Cecil Smith (ed.), *Literacy for the 21st Century*. Westport, CN: Greenwood Publishing Group.
16. Kaplan, D. (1998). Methods for multilevel data analysis. In G. A. Marcoulides (ed.), *Modern Methods for Business Research*. Mahwah, NJ: Lawrence Erlbaum and Associates.
17. Kaplan, D. (1996). An overview of concepts and issues in multilevel structural equation modeling. In H. Ernste (ed.), *Multilevel Analysis with Structural Equation Models*. (pp. 1-18). Zurich, Switzerland: Department of Geography, Swiss Federal Institute of Technology (ETH).
18. Kaplan, D. (1995). Statistical power in structural equation modeling. In R. H. Hoyle (ed.), *Structural Equation Modeling: Concepts, Issues, and Applications*. (pp. 100-117). Newbury Park, CA: Sage Publications, Inc.
19. Kaplan, D. & Wenger, R. N. (1993). Asymptotic independence and separability in covariance structure models. In R. Steyer, K. Wender, & K. Widaman (Eds.), *Psychometric Methodology: Proceedings of the 7th European Meeting of the Psychometric Society in Trier*. (pp. 203-208). Stuttgart and New York: Gustav Fischer Verlag.
20. Glutting, J. J. & Kaplan, D. (1990). Stanford-Binet Intelligence Scale: Fourth Edition: Making the case for reasonable interpretations. In C. R. Reynolds & R. W. Kamphaus (Eds.), *Handbook of Psychological and Educational Assessment of Children: Volume 1. Intelligence and Achievement*. (pp. 277-295). New York: The Guilford Press.

## Encyclopedic Entries

1. Kaplan, D. (2005). Identification. In B. S. Everitt & D. C. Howell (eds). *Encyclopedia of Statistics in Behavioral Science* (pp. 892-896). Chichester, John Wiley and Sons.
2. Kaplan, D. (2003). Structural Equation Modeling. In N. J. Smelser & P. B. Baltes (eds). *International Encyclopedia of the Social and Behavioral Sciences*. Oxford: Elsevier Science.
3. Kaplan, D. (2003). Covariance. In M. Lewis-Beck, A. E. Bryman, & Tim Futing Liao (eds). *The SAGE Encyclopedia of Social Science Research Methods*. Newbury Park, CA: Sage Publications.

4. Kaplan, D. (2003). Covariance Structure. In M. Lewis-Beck, A. E. Bryman, & Tim Futing Liao (eds). *The SAGE Encyclopedia of Social Science Research Methods*. Newbury Park, CA: Sage Publications.
5. Kaplan, D. (2003). Structural Equation Modeling. In M. Lewis-Beck, A. E. Bryman, & Tim Futing Liao (eds). *The SAGE Encyclopedia of Social Science Research Methods*. Newbury Park, CA: Sage Publications.
6. Kaplan, D. (2003). Structural Coefficient. In M. Lewis-Beck, A. E. Bryman, & Tim Futing Liao (eds). *The SAGE Encyclopedia of Social Science Research Methods*. Newbury Park, CA: Sage Publications.
7. Kaplan, D. (1992). Structural equation modeling. In M. C. Alkin (ed.), *Encyclopedia of Educational Research 6th edition*. New York: Macmillan.

### Book Reviews

1. Kaplan, D. (2010). [Review of Bayesian Methods for Data Analysis, Third Edition]. *Psychometrika*, *75*, 391–392.
2. Kaplan, D. (1994). [Review of Structural Equation Modeling with EQS and EQS/Windows: Basic Concepts, Applications, and Programming]. *Applied Psychological Measurement*, *18*, 191-192.
3. Kaplan, D. (1993). [Review of Testing Structural Equation Models]. *Structural Equation Modeling*, *1*, 98-99.
4. Kaplan, D. (1990). [Review of Multivariate Statistics: A Practical Approach]. *Journal of Educational Statistics*, *15*, 171-174.

### Technical Reports, Working Papers, Policy Briefs

1. Kaplan, D. & Harra, K. (2023). A Bayesian workflow for the analysis and reporting of international large-scale surveys: A case study using the OECD Teaching and Learning International Survey. OECD Education Working Papers, No. 291, OECD Publishing, Paris, <https://doi.org/10.1787/588c4a12-en>.
2. Kaplan, D. (2019). Bayesian Inference for Social Policy Research. (OPRE Report #2019-36). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
3. Vieluf S., Kaplan, D., Klieme, E., & Bayer, S. (2012), Teaching Practices and Pedagogical Innovation: Evidence from TALIS. OECD Publishing. <http://dx.doi.org/10.1787/9789264123540-en>.
4. Kaplan, D. & A. Turner (2012). Statistical Matching of PISA 2009 and TALIS 2008 Data in Iceland. *OECD Education Working Papers*, No. 78, OECD Publishing. <http://dx.doi.org/10.1787/5k97g3zzvg30-en>

5. Kaplan, D. (2009). Report on the Improvement of Multilevel Analyses for PISA Data. OECD Unpublished Commissioned Review Paper. Paris: OECD.
6. Kaplan, D. (2000). Secondary statistical modeling with the National Assessment of Adult Literacy: Implications for the Design of the Background Questionnaire. NCES Working Paper No. 2000-05. Washington, DC: National Center for Education Statistics.
7. Kaplan, D. & Venezky, R. L. (1995). Literacy and voting behavior: A statistical analysis based on the 1985 Young Adult Literacy Survey. NCAL Technical Report TR94-14. Philadelphia: National Center on Adult Literacy.
8. Kaplan, D., & Elliott, P. R. (1994). A Multilevel Structural Model of Science Achievement From an Indicator System Perspective: Implications for Educational Policy Analysis. Final Report to the AERA Grants Program Committee
9. Kaplan, D. & Venezky, R. L. (1993). What can employers assume about the literacy skills of GED graduates? NCAL Technical Report TR93-5. Philadelphia: National Center on Adult Literacy.
10. Kaplan, D. (1992). The Analysis of Adult Literacy Survey Data: Problems in Factor Analysis with BIB-Spiralled Item Administration. NCAL Occasional Paper OP92-2. Philadelphia: National Center on Adult Literacy.

### **Invited Addresses and Keynotes**

1. Kaplan, D. (2024). Probabilistic Forecasting with International Large-Scale Assessments: Methods for Estimating the Pace of Progress to the UN Education Sustainable Development Targets. Presidential Address, International Meeting of the Psychometric Society, July 19th, 2024, Prague, The Czech Republic.
2. Kaplan, D. (2024). Methods for Estimating the Pace of Progress to the United Nations Education Sustainable Development Targets. Presented to the Leibniz Institute for Educational Trajectories. July 22nd, 2024, Bamberg, Germany.
3. Kaplan, D. (2024). Probabilistic Forecasting with International Large-Scale Assessments: Applications to the UN Sustainable Development Goals. Invited virtual presentation: Tucker-Holland Workshop, Educational Testing Service, February, 20, 2024.
4. Kaplan, D. (2023). Probabilistic Forecasting with International Large-Scale Assessments: Applications to the UN Sustainable Development Goals. Invited presentation to the OECD Directorate of Education and Skills, Paris, France, Sept. 21, 2023.
5. Kaplan, D. (2023). Invited panelist. Panel on Causal Claims with ILSA Data: Possibilities and Limitations. Presented at the 10th IEA International Research Conference. June 28-30, Dublin Ireland.
6. Kaplan, D. (2022). Probabilistic Forecasting with International Large-Scale Assessments: Applications to the UN Sustainable Development Goals. Invited Keynote: Bayes Meets Bamberg, June 22, 2023, Universität Bamberg, Bamberg Germany.

7. Kaplan, D. (2022). Probabilistic Forecasting with International Large-Scale Assessments: Applications to the UN Sustainable Development Goals. Computational Psychometrics Group, Institute of Computer Science of the Czech Academy of Sciences, Prague, The Czech Republic. December, 20, 2022.
8. Kaplan, D. (2022). Bayesian Methods for Borrowing Historical Information With Applications to the Analysis of Large-Scale Assessments. Medical College of Wisconsin Biostatistics Seminar Nov. 1, 2022 (Virtual).
9. Kaplan, D. (2022). Probabilistic Forecasting with International Large-Scale Assessments: Applications to the UN Sustainable Development Goals. Social Statistics Seminar, Department of Statistics, London School of Economics, October 25, 2022.
10. Kaplan, D. (2022). Bayesian Methods for Borrowing Historical Information With Applications to the Analysis of Large-Scale Assessments. Department of Statistics Seminar, London School of Economics, October 21, 2022.
11. Kaplan, D. (2021). A Gentle Introduction to Bayes. Institute of Sociology, Universität Jena, October 14, 2021. Jena, Germany
12. Kaplan, D. (2021). Bayesian Statistics for Beginners. Presented to the Deutsches Jugendinstitut. Oct. 26th - 27th, 2021, Munich, Germany.
13. Kaplan, D. (2021). A Primer on Bayesian Statistics. Research and Analysis Division of the International Association for the Evaluation of Educational Achievement (IEA). Oct. 5th, 2021, Hamburg, Germany.
14. Kaplan, D. (2021). Bayesian Dynamic Borrowing for Single and Multilevel Models. State-of-the-art paper Presented (virtually) to the European Association of Methodology, July 22nd, 2021, Valencia, Spain.
15. Kaplan, D. (2019). Recent Developments and Future Directions in Bayesian Model Averaging. Donald O. Hebb Lecture Series. Department of Psychology, McGill University, Nov. 1st., 2019, Montreal, Canada.
16. Kaplan, D. (2019). Quantifying Uncertainty in Models and Methods: Overview and Recent Developments in Bayesian Model Averaging. Invited talk, Department of Psychology, Fordham University, Oct. 30th, 2019, New York City, NY.
17. Kaplan, D. (2019). The Bayesian Revolution and Why You Should Care. The 2019 Anastasi Lecture. Fordham University, Oct. 29th, 2019, New York City, NY.
18. Kaplan, D. (2019). Quantifying Uncertainty in Models and Methods: Overview and Recent Developments in Bayesian Model Averaging. Invited Distinguished Lecture, Department of Psychology, University of California - Davis, Oct. 17th, 2019, Davis, CA.
19. Kaplan, D. (2019). An Approach to Addressing Multiple Imputation Model Uncertainty Using Bayesian Model Averaging. Invited paper Presented at DAGStat 2019 (Deutsche Arbeitsgemeinschaft Statistik), Munich, Germany.

20. Kaplan, D. (2019). Quantifying Uncertainty in Models and Methods: A Bayesian Perspective. Invited talk, Luxembourg Institute for Socio-Economic Research. January, 16th, 2019, Belval, Luxembourg.
21. Kaplan, D. (2018). Recent Developments and Applications of Bayesian Model Averaging Applicable to the Social and Behavioral Sciences. Presidential address to the annual meeting of the Society for Multivariate Experimental Psychology. Albuquerque, New Mexico.
22. Kaplan, D. (2018). Recent Developments and Applications of Bayesian Model Averaging. Invited address, IMPS 2018, New York City, NY.
23. Kaplan, D. (2018). Recent Developments and Applications of Bayesian Model Averaging. Presented to the Leibniz Institute for Educational Trajectories. July 4th, 2018, Bamberg, Germany.
24. Kaplan, D. (2017). On the Utility of Bayesian Model Averaging for Optimizing Prediction: Two Case Studies. Invited talk Presented to OPRE Meeting On Bayesian Methods for Social Policy Research and Evaluation. October 20th, 2017, Washington, DC.
25. Kaplan, D. (2017). A Brief Introduction to Bayesian Statistics. Invited talk Presented to OPRE Meeting On Bayesian Methods for Social Policy Research and Evaluation. October 19th, 2017, Washington, DC.
26. Kaplan, D. (2017). Building Optimally Predictive Models for Education Policy Using Large-Scale Assessments. Invited talk, Educational Testing Service. March 23rd, 2017.
27. Kaplan, D. (2016). Opportunities and Challenges in Collecting and Analyzing Longitudinal Educational Data. Invited address to the Israel Academy of Sciences and Humanities, Initiative for Applied Educational Research. December 19th, 2016, Jerusalem, Israel.
28. Kaplan, D. (2016). Building optimal predictive models with large-scale assessment data: An example from PISA. Invited talk to the PISA 2016 Seminar, University of Oxford. December 9th, 2016.
29. Kaplan, D. (2016). Capturing uncertainty in methods of causal inference: A Bayesian approach to propensity score analysis. Invited talk to the Luxembourg Institute for Socio-Economic Research. June 22, 2016. Belval, Luxembourg.
30. Kaplan, D. (2016). Bayesian model averaging over directed acyclic graphs with implications for improving predictive performance of structural equation models. Invited talk to the Department of Statistics, London School of Economics, June 3rd, 2016.
31. Kaplan, D. (2016). Bayesian model averaging over directed acyclic graphs with implications for improving predictive performance of structural equation models. Invited talk to the Department of Statistics, University of Bologna, April 28th, 2016.
32. Kaplan, D. (2016). The future of quantitative inquiry in the social sciences. Invited talk to the Department of Psychology, Universität Mannheim, March 3rd, 2016, Mannheim, Germany.



33. Kaplan, D. (2016). Bayesian Model Averaging for Improved Prediction in the Social and Behavioral Sciences. Invited talk to the Department of Psychology and Education, Freie Universität Berlin. February 4th, 2016. Berlin, Germany.
34. Kaplan, D. (2015). The future of quantitative inquiry in the social sciences. Invited talk to the Wertheimer-Kolloquium: Goethe-Universität Frankfurt. December 2nd, 2015. Frankfurt, Germany.
35. Kaplan, D. (2015). The future of quantitative inquiry in the social sciences. Invited talk to Universität Bamberg Graduate School of the Social Sciences. October 21st, 2015. Bamberg, Germany.
36. Kaplan, D. (2015). Bayesian model averaging over directed acyclic graphs with implications for improving predictive performance of structural equation models. Invited talk to the Department of Statistics, University of Uppsala, September 2015.
37. Kaplan, D. (2015). The Bayesian revolution and its implications for research with international large-scale assessments. Keynote address to the 6<sup>th</sup> IEA International Research Conference. June 24 – 26, 2015, Cape Town, South Africa.
38. Kaplan, D. (2015). Context questionnaire rotation and imputation with implications for the estimation of plausible values in large-scale assessments. Presented to the Quantitative Methods Seminar Program, Department of Education, University of Oxford, June 15, 2015, Oxford, UK.
39. Kaplan, D. (2015). Bayesian model averaging over directed acyclic graphs with implications for prediction in structural equation modeling. Invited address Presented to the Special Interest Group on Structural Equation Modeling, AERA, Chicago, April 18th, 2015.
40. Kaplan, D. (2014). Three invited lectures on Bayesian methods Presented to the Econometrics and Applied Statistics Unit, European Commission Joint Research Center. December 15 – 17. Isrpa, Italy.
41. Kaplan, D. (2014). Missing data issues in large-scale assessments: Challenges and Opportunities. Keynote address to the 4th Congress on Measurement and Evaluation in Education and Psychology. June 12th, 2014, Hacettepe University, Ankara Turkey.
42. Kaplan, D. (2013). Capturing uncertainty in methods of causal inference: A Bayesian approach to propensity score analysis. Invited Presentation to the National Changhua University of Education. Dec. 13th. Changhua, Taiwan.
43. Kaplan, D. (2013) Invited discussant at the PIAAC Invitational Research Conference. Nov. 13th – Nov. 15th, Washington, DC.
44. Kaplan, D. (2012) The Bayesian perspective in the context of large-scale assessments. Invited Presentation to the Workshop In Methods Series, Indiana University. February 17th, 2012.
45. Kaplan, D. (2011). Invited discussant at the International large-scale Assessment Conference. March 16th – March 18th, Educational Testing Service, Princeton, NJ.

46. Kaplan, D. (2010). Bayesian approaches to propensity score analysis for observational studies. Invited Presentation to the German Institute for International Educational Research, Frankfurt, Germany. November 15th, 2010.
47. Kaplan, D. (2010). A review and comparative study of Bayesian approaches to propensity score analysis. Presented to the College of Education, Michigan State University.
48. Kaplan, D. (2010). A review and comparative study of Bayesian approaches to propensity score analysis. Presented to the Department of Statistics, Uppsala University, Sweden.
49. Kaplan, D. & Depaoli, S. (2010). Bayesian growth mixture modeling: Theory and application. Invited symposium paper Presented at the annual meeting of the Association for Psychological Science. May 26th – May 30th. Boston, MA.
50. Kaplan, D. (2009). Multilevel latent variable modeling with PISA data. Invited Presentation to the OECD/EDU/IA Secretariat. Paris, France.
51. Kaplan, D. (2009). New Statistical Methods for the Study of Change Over Time: Implications for Research in Child Language Disorders. Invited address Presented at the Symposium on Research in Child Language Disorders, June 4th, Madison, Wisconsin.
52. Kaplan, D. (2008). Causality and Exogeneity with Implications for Structural Equation Modeling. Invited Symposium Presented at the International Congress on Psychology, July 20-25th, Berlin, Germany.
53. Kaplan, D. (2008). Developments and Applications of Markov Modeling for Panel Data. Presented to the Leibniz Institute for Research and Information in Education (DIPF), Frankfurt, Germany.
54. Kaplan, D. (2008). Exogeneity in the Social and Behavioral Sciences. Presented to the Faculty of the Behavioral Sciences, University of Twente, Enschede, The Netherlands.
55. Kaplan, D. (2008). Causal Inference in Non-Experimental Educational Settings: A Philosophical Synthesis. Presented to the Faculty of the Behavioral Sciences, University of Twente, Enschede, The Netherlands.
56. Kaplan, D. (2008). An Expanded Manipulability Account of Causal Inference in Non-Experimental Settings. Presented to the IES Pre-Doctoral Training Program Colloquium Series, Graduate School of Education, University of Pennsylvania.
57. Kaplan, D. (2007). Issues of Causality and Exogeneity in Educational Research. Presented to the Leibniz Institute for Research and Information in Education (DIPF), Frankfurt, Germany.
58. Kaplan, D. (2007). Developments in Multilevel Structural Equation Modeling. Presented to the Leibniz Institute for Research and Information in Education (DIPF), Frankfurt, Germany.
59. Kaplan, D. (2007). RePresenting a Research Problem as a Structural Equation Model. Invited address to the Academy Colloquium on Advising on Research Methods, sponsored by the Royal Netherlands Academy of Arts and Sciences, Amsterdam, The Netherlands.

60. Kaplan, D. (2007). Beyond capitalizing on chance: Ethical considerations in conducting statistical analyses. Presented to the Waisman Center Research Ethics Series. University of Wisconsin-Madison.
61. Kaplan, D. & Sweetman, H. M. (2005). Finite mixture modeling approaches to the study of academic growth: Beyond a "one-size-fits-all" perspective. Presented at the MARCES Conference on Longitudinal Modeling of Student Achievement. University of Maryland, College Park, MD.
62. Kaplan, D. (2005). A review and extension of quantitative models for the diffusion of innovations with relevance to educational systems. Presented to the Department of Educational Psychology, University of Wisconsin - Madison
63. Kaplan, D. (2005). Reviewing and extending statistical models of diffusion with relevance to educational innovations. Presented to the Learning Sciences Brown Bag Series, School of Education and Social Policy, Northwestern University.
64. Kaplan, D. (2005). Two studies of dynamic modeling with finite mixtures. Invited colloquium, Educational Testing Service, Princeton, NJ.
65. Kaplan, D. (2002). Co-Instructor for the AERA Institute on Statistical Analysis for Education Policy. New Orleans, Louisiana.
66. Kaplan, D. (2002). In-school versus out-of-school ICT learning: Preliminary findings for the United States. First International Dissemination Conference for the OECD/CERI ICT Programme. Vanderbilt University, Nashville, TN.
67. Kaplan, D. (2001). Multilevel Covariance Structure Modeling. Invited address to the Center for the Advancement of Research Methods and Analysis (CARMA). School of Business, Virginia Commonwealth University, Richmond, Virginia.
68. Kaplan, D. (2001). Invited panel participant for Spencer Foundation sponsored session entitled "Getting Grants". Presented at the annual meeting of the American Education Research Association. Seattle, Washington.
69. Kaplan, D. (2001). Invited panel participant for AERA sponsored session entitled "Putting Your Talents to Work: Launching Your Career". Presented at the annual meeting of the American Education Research Association. Seattle, Washington.
70. Kaplan, D. (2000). Merging the propensity score with Joreskog's work on MIMIC and multiple group modeling: An approach to modeling selection bias. Paper Presented at the conference entitled, "Factor Analysis and Structural Equation Modeling: Perspectives and Visions. An International Symposium Honoring the Research of Karl G. Joreskog". Uppsala, Sweden.
71. Kaplan, D. (1999). Secondary statistical modeling with the National Assessment of Adult Literacy: Implications for the design of the background questionnaire. Discussion Papers Briefing, Washington, DC.

72. Kaplan, D. (1999). Invited Workshop on Hierarchical Linear Modeling. Presented to the School of Education, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel.
73. Kaplan, D. (1999). A Multilevel Model of the Effects of School Choice on Academic Achievement. Presented to the School of Education, Hebrew University of Jerusalem, Israel.
74. Kaplan, D. (1998). Invited Workshop on Structural Equation Modeling. Presented to the School of Education, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel.
75. Kaplan, D. (1998). Elements of univariate and multivariate growth curve modeling. Presented to the School of Education, Hebrew University of Jerusalem, Israel, and the School of Education, Tel-Aviv University, Israel.
76. Kaplan, D. (1998). On the extension of the propensity score adjustment method for the analysis of group differences in latent variable models. Presented at the 1998 meeting of the Israeli Sociological Association, Haifa, Israel.
77. Kaplan, D. (1997). On the use of latent variable growth modeling for monitoring change in multiple achievement domains. Department of Psychology, College of William and Mary, Williamsburg, VA.
78. Kaplan, D. (1997). Invited Workshop on Structural Equation Modeling. Presented to the Faculty of Social Sciences, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel.
79. Kaplan, D. (1997). Structural Equation Modeling. Invited AERA Graduate Student Seminar Roundtable. Annual meeting of the American Educational Research Association. Chicago, IL.
80. Kaplan, D. (1997). Statistical modeling of hierarchy, structure, and temporality in complex organizations: An example from education. Presented to the Faculty of Social Sciences, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel.
81. Kaplan, D. (1995). Modeling science education indicators: An application of multilevel structural equation modeling. Presented to the Delaware Chapter of the American Statistical Association. Newark, DE.
82. Kaplan, D. (1995). Recent developments and future directions in structural equation modeling. Presented to the Department of Statistics, Tel Aviv University, Tel Aviv, Israel.
83. Kaplan, D. (1995). Modeling and validating science education indicators. Presented to the School of Education, Tel Aviv University, Tel-Aviv, Israel.
84. Kaplan, D. (1995). Invited participant in Conference on Analytic Uses of Longitudinal Databases. Washington, DC.
85. Kaplan, D. (1994). The utility of multilevel structural equation modeling for organizational policy studies: The case of education. Presented to the RMD Conference on Causal Modeling. Purdue University.

86. Kaplan, D. (1990). Covariance structure modeling. Presented to the Delaware Chapter of the American Statistical Association. Newark, Delaware.

### **Invited Workshops and Short Courses**

1. Kaplan, D. (2023). A Primer on Bayesian Statistics, Universität Bamberg, June 21, 2023. Bamberg, Germany.
2. Kaplan, D. (2021). What's All the Buzz About Bayes? Workshop on Bayesian Methods for the Social Sciences. Institut für Bildungswissenschaft, Universität Heidelberg, December 15, 2021. Heidelberg, Germany.
3. Kaplan, D. (2021). Introduction to Bayesian Statistical Inference. Institute of Sociology, Universität Jena, October 14, 2021. Jena, Germany
4. Kaplan, D. (2020). Workshop on Bayesian Statistics. Center for Social and Behavioral Science, University of Illinois, February 10th, 2020. Urbana, Illinois.
5. Kaplan, D. (2020). Recent Developments and Future Directions in Bayesian Model Averaging. Workshop in Methods Series, Indiana University, February 7th, 2020. Bloomington, Indiana.
6. Kaplan, D. (2019). Workshop on Bayesian Statistics. Department of Psychology, Florida State University, September, 27th, 2019. Tallahassee, Florida.
7. Kaplan, D. (2018). Workshop on Bayesian Statistics. Universität Bamberg. June 13-14, 2018. Bamberg, Germany.
8. Kaplan, D. (2018). An Introduction to Bayesian Methods for the Education Sciences. Instituto de Investigación y Desarrollo Educativo, Universidad Autónoma de Baja California. March 1-2, 2018.
9. Kaplan, D. (2018). Workshop on Bayesian Structural Equation Modeling. Department of Psychology, University of Ottawa. January 17th, 2018. Ottawa, Canada.
10. Kaplan, D. (2017). Workshop on Bayesian Statistic for the Social Sciences. GESIS - Leibniz Institute for Social Science Research. November 8th, 2017. Mannheim, Germany.
11. Kaplan, D. (2017). Introduction to Bayesian Statistics for the Social Sciences. Mexican Statistical Association, September 25th, 2017. Mexico City, Mexico.
12. Kaplan, D. (2017). Bayesian Statistics with Applications to IEA Data. IEA Research Conference, June 27th, 2017. Prague, Czech Republic.
13. Kaplan, D. (2017). Advanced Workshop on Bayesian Statistics for the Social Sciences. Universität Mannheim, May 22-24, 2017.
14. Kaplan, D. (2017). Workshop on Latent Transition Analysis. Department of Education, University of Oxford, May 17th, 2017.

15. Kaplan, D. (2016). Short course on Bayesian Statistics for the Social Sciences. Presented to the Luxembourg Institute for Socio-Economic Research. June 22, 2016.
16. Kaplan, D. (2016). Workshop on Bayesian Statistics for the Social Sciences. Presented to Institute of Psychology, University of Zürich, May 2–4, May 25–27, 2016. Zürich, Switzerland.
17. Kaplan, D. (2016). An Introduction to Bayesian Methods for the Social Sciences. Institute of Psychology, Goethe-Universität Frankfurt. April 13th, 2016. Frankfurt, Germany.
18. Kaplan, D. (2016). What’s All the Buzz About Bayes?: An Overview of Bayesian Methods for the Social and Behavioral Sciences. Freie Universität Berlin. February, 5th, 2016, Berlin, Germany.
19. Kaplan, D. (2016). Workshop on Bayesian Statistics for Education Research. Presented to the Center for Educational Measurement - Oslo (CEMO), University of Oslo, January 19–21, 2016, Oslo, Norway.
20. Kaplan, D. (2015). Bayesian methods for education research. Workshop Presented to the Centre for International Student Assessment (ZIB). Leibniz Institute for Science and Mathematics Education (IPN), September 28–30, 2015, Kiel, Germany
21. Kaplan, D. (2015) Workshop on Bayesian methods for international assessments. Department of Education, University of Oxford, June 17–19, 2015, Oxford, UK.
22. Kaplan, D. (2015). Bayesian methods for international large-scale assessments. Workshop Presented at the IERI Winter Academy. February 11 – 13. IEA Data Processing Center, Hamburg, Germany.
23. Kaplan, D. (2014). Bayesian methods for prevention and intervention science. Workshop Presented at the ICPSR Summer Program. June 2nd – July 3rd, 2014. University of Michigan.
24. Kaplan, D. (2014). Workshop on Bayesian statistical inference. The 4th Congress on Measurement and Evaluation in Education and Psychology. June 9th, 2014, Hacettepe University, Ankara, Turkey.
25. Kaplan, D. (2014). Bayesian statistics for the social sciences. Workshop Presented to the Center for Demography and Ecology, University of Wisconsin – Madison. May 28–30, 2014.
26. Kaplan, D. (2014). Bayesian methods for the social and behavioral sciences. Workshop Presented at the Modern Modeling Methods Conference. May 22nd, 2014, University of Connecticut.
27. Kaplan, D. (2014). What’s All the Buzz About Bayes?: An Overview of Bayesian Methods for Education Science. Workshop Presented at the Society for Research on Educational Effectiveness. March 6th, 2014, Washington, DC.
28. Kaplan, D. (2013). Workshop on Bayesian inference in the social sciences. National Changhua University of Education. Dec. 10th, Changhua, Taiwan.

29. Kaplan, D. (2013). Short Course on Bayesian Statistical Inference. Presented to the Departments of Sociology, Psychology, and Political Science, University of Iowa. Oct. 4th, 2013.
30. Kaplan, D. (2013). CIDER Workshop on Bayesian Statistical Inference. Presented to the College on Interdisciplinary Education Research (CIDER), Frankfurt, Germany. April 15–18, 2013.
31. Kaplan, D. (2013). Invited Workshop on Bayesian Statistical Inference. Presented to the Leibniz Institute for Research and Information in Education (DIPF), Frankfurt, Germany. February 25–28, 2013.
32. Kaplan, D. (2012). Invited Workshop on Bayesian Statistical Inference. Presented to The NCJW Research Institute for Innovation in Education, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel. June 10th – 12th.
33. Kaplan, D. (2005). Invited Workshop on Latent Variable Modeling. Presented to the School of Education and Social Policy, Northwestern University.
34. Kaplan, D. (2001). Invited Workshop on Hierarchical Linear Modeling. Presented to the Faculty of Economics, University of Milano-Bicocca, Milan, Italy.

#### **Peer Reviewed Conference Presentations**

1. Kaplan, D. (2024). Stacking Growth Curve Models: Implications for Prediction with Large-Scale Assessments(24). Paper Presented at the Joint Statistical Meetings. August 8, 2024, Portland, Or.
2. Kaplan, D. (2023). Approaches to Addressing Model Uncertainty in Secondary Data Analyses: An Example Using PIRLS. Paper presented to the 10th IEA International Research Conference. June 28 - 30, Dublin, Ireland.
3. Kaplan, D., Chen, J., Yavuz, S., & Lyu, W. (2022). Bayesian dynamic borrowing of historical information with applications to the Analysis of Large-Scale Assessments. Paper Presented at the Joint Statistical Meetings. August 8, 2022, Washington, DC.
4. Kaplan, D., Chen, J., Lyu, W., & Yavuz, S. (2022). Bayesian Dynamic Borrowing with Longitudinal Large-Scale Assessment Data. Paper Presented at the International Meeting of the Psychometric Society. July 12, 2022, Bologna, Italy.
5. Kaplan, D., Chen, J., Yavuz, S., & Lyu, W. (2022). Borrowing Historical Information for the Analysis of Large-Scale Assessments. Paper Presented at the meeting of the International Society for Bayesian Analysis. June 28, 2022, Montreal, Canada.
6. Kaplan, D., Chen, J., Yavuz, S., & Lyu, W. (2020). Borrowing Historical Information for the Analysis of Large-Scale Assessments. Paper Presented virtually at the 6<sup>th</sup> International NEPS Conference. June 8, 2021.
7. Kaplan, D., Chen, J., Yavuz, S., & Lyu, W. (2020). Bayesian Historical Borrowing for Single and Multilevel Models. Paper Presented virtually at the annual meeting of the Society of Multivariate Experimental Psychology. October 8 – 10, 2020.

8. Kaplan, D. & Huang, M. (2020). Bayesian Probabilistic Forecasting with State NAEP Data. Paper Presented at the (Virtual) International Meeting of the Psychometric Society. July 14 – 17, 2020.
9. Kaplan, D. (2019). Bayesian Probabilistic Forecasting with Implications for the United Nations Sustainable Development Education Goals. Paper Presented at the annual meeting of the Society of Multivariate Experimental Psychology, October 10-12, 2019, Baltimore, MD.
10. Kaplan, D. & Yavuz, S. (2019.) An Approach to Addressing Multiple Imputation Model Uncertainty Using Bayesian Model Averaging. Paper Presented at the International Meeting of the Psychometric Society. July 15 - 19, 2019, Santiago, Chile.
11. Kaplan, D. & Stancel-Piątak, A. (2019). Optimally Predictive Cross-Country Growth Models with Applications to TIMSS. Paper Presented at the 8th IEA International Research Conference. June 26–28, 2019, Copenhagen, Denmark.
12. Kaplan, D. (2019). Development and Application of Cross-Country Growth Regressions Using International Large-Scale Educational Assessments. Paper Presented at the 2019 annual meeting of the Population Association of America. April 11 - 13, 2019, Austin, Texas.
13. Kaplan, D. (2018). Optimizing Prediction for Policy Analysis Using Bayesian Model Averaging: Applications to Large-Scale Educational Assessments. Paper Presented at the 40th annual meeting of the Association for Public Policy Analysis and Management. November 9th, 2018, Washington, DC.
14. Kaplan, D. (2018). Optimizing Prediction in the Social Sciences Using Bayesian Model Averaging. Paper Presented at the 51st Meeting of the Deutsche Gesellschaft für Psychologie. September, 17th, 2018, Johann Wolfgang Goethe Universität , Frankfurt, Germany.
15. Kaplan, D. & Yavuz, S. (2018). An Approach to Addressing Multiple Imputation Model Uncertainty Using Bayesian Model Averaging. Paper Presented at the 8th Meeting of the European Association for Methodology. July 27th, 2018, Jena, Germany.
16. Kaplan, D. & Yavuz, S. (2017). A Really, Truly, “Bayesianly” Proper Approach to Multiple Imputation. Paper Presented at the annual meeting of the Society of Multivariate Experimental Psychology, October 4th - 7th, 2017, Minneapolis, MN.
17. Kaplan, D. & Su, D. (2017). On Imputation for Designed Missing Data in Context Questionnaires Using Plausible Values. Paper Presented at the International Meeting of the Psychometric Society. July 17–21, 2017, Zurich, Switzerland.
18. Kaplan, D. (2017). Optimizing prediction in international large-scale assessments: A case-study using PIRLS. Paper Presented at the 7th IEA International Research Conference. June 28–30, 2017, Prague, Czech Republic.
19. Kaplan, D. (2017). Bayesian model averaging for building predictive models with large-scale educational assessments. Paper Presented at the annual meeting of the National Council on Measurement in Education, April 26–30, 2017, San Antonio, TX.



20. Kaplan, D. (2017). The future of quantitative inquiry in the social and behavioral sciences. Poster Presentation to the Alexander von Humboldt Foundation Colloquium: "Global Research in the 21st Century: Perspectives of the U.S. Humboldt Network", Washington D.C., March 2–4, 2017
21. Kaplan, D. (2016). On the Utility of Bayesian Model Averaging for Improving Prediction in Education Research. Paper Presented at the annual meeting of the Society of Multivariate Experimental Psychology. Oct. 20 – 22, Richmond, VA.
22. Kaplan, D. & Su, D. (2016). Some new results on context questionnaire rotation and imputation with implications for the estimation of plausible values in large-scale assessments. Paper Presented at the annual meeting of the National Council on Measurement in Education, April 9–11, Washington, DC.
23. Kaplan, D. & Su, D. (2016). Context questionnaire rotation and imputation with implications for the estimation of plausible values in large-scale assessments. Paper Presented at DAG-Stat 2016 (Deutsche Arbeitsgemeinschaft Statistk), March 16th, 2016, Universität Göttingen, Germany.
24. Kaplan, D. & Lee, D. (2015). Bayesian model averaging over directed acyclic graphs with implications for prediction in structural equation models. Paper Presented at the International Meeting of the Psychometric Society. July 12 – 16, Beijing, China.
25. Kaplan, D. & Su, D. (2015). Context questionnaire rotation and imputation with implications for the estimation of plausible values in large-scale assessments. Paper Presented at the Modern Modeling Methods Conference. May 19–20, 2015, University of Connecticut.
26. Kaplan, D. & Lee, D. (2014). Bayesian model averaging over directed acyclic graphs with implications for prediction in structural equation models. Paper Presented at the Modern Modeling Methods Conference. May 19–20, 2015, University of Connecticut.
27. Kaplan, D. (2015). A Bayesian framework for causal inference with large-scale assessments. Paper Presented at the annual meeting of the National Council on Measurement in Education, April 16–19, Chicago, IL.
28. Kaplan, D. & Su, D. (2014). Imputation issues relevant to context questionnaire rotation in large-scale surveys. Paper Presented at the annual meeting of the Society of Multivariate Experimental Psychology. Oct. 8–11, Nashville, Tennessee.
29. Kaplan, D. & Su, D. (2014). Context questionnaire rotation and imputation with reference to plausible values in large-scale assessments. Paper Presented at the 79th Annual Meeting of the Psychometric Society. July 22–25, Madison, WI.
30. Kaplan, D. & Chen, J. (2014). Bayesian model averaging for propensity score analysis. Paper Presented at the Modern Modeling Methods Conference. May 21–22, 2014, University of Connecticut.

31. Kaplan, D. & Su, D. (2014). Imputation issues relevant to context questionnaire rotation. Paper Presented at the annual meeting of the National Council on Measurement in Education. April 4–6, Philadelphia, Pennsylvania.
32. Kaplan, D. & Park, S. (2014). Modeling ILSA data from a Bayesian perspective. Paper Presented at the annual meeting of the National Council on Measurement in Education. April 4–6, Philadelphia, Pennsylvania.
33. Kaplan, D. & Chen, J. (2013). Bayesian model averaging for propensity score analysis. Paper Presented at the annual meeting of the Society of Multivariate Experimental Psychology. Oct. 17–19, Tampa, Florida.
34. Kaplan, D. & Chen, J. (2013). Bayesian model averaging for propensity score analysis. Paper Presented at the 78th Annual Meeting of the Psychometric Society. July 22–26. Arnhem, The Netherlands.
35. Kaplan, D. & Chen, J. (2013). Bayesian model averaging for propensity score analysis. Paper Presented at the 2013 annual research conference of the Society for Research on Educational Effectiveness. Washington, DC.
36. Kaplan, D. & Turner, A. (2012). Data fusion with international large-scale assessments: A case study of the OECD PISA and TALIS surveys. Paper Presented at the annual meeting of the Society of Multivariate Experimental Psychology. Oct. 11–13. Vancouver, BC, Canada.
37. Kaplan, D. & Turner, A. (2012). Statistical matching of large-scale assessments: A case study of OECD PISA and TALIS surveys. Paper Presented at the 77th Annual Meeting of the Psychometric Society. July 10–12. Lincoln, NE.
38. Kaplan, D. & Turner, A. (2012). Statistical matching of large-scale assessments: A case study of PISA and TALIS. Paper Presented at annual meeting of the National Council on Measurement in Education. April 14–16. Vancouver, BC, Canada
39. Kaplan, D. & Chen, J. (2011). Propensity score analysis from a Bayesian perspective. Poster Presented at the 2011 Annual Meeting of the American Psychological Association. August 4-7. Washington, DC.
40. Kaplan, D. & Chen, J. (2011). A two-step approach for Bayesian propensity score analysis. Presented at the 76th Annual and 17th International Meeting of the Psychometric Society. July 19 - 22. Hong Kong.
41. Kaplan, D. & Depaoli, S. (2011) Bayesian multilevel SEM for predicting student achievement: An Application to PISA. Symposium paper Presented at the 2011 annual meeting of the National Council on Measurement in Education. April 9–11, New Orleans, LA.
42. Kaplan, D. & Chen, J. (2011). Bayesian propensity score analysis. Paper Presented at the 2011 annual research conference of the Society for Research on Educational Effectiveness. Washington, DC.

43. Kaplan, D. & Chen, J. (2010). A comparative study of Bayesian and frequentist propensity score analysis. Presented at the 2010 meeting of the Society for Multivariate Experimental Psychology. Atlanta, Georgia.
44. Kaplan, D. & Depaoli, S. (2010). Bayesian growth mixture modeling: Theory and application. Paper Presented at the 2010 International Meeting of the Psychometric Society. Athens, Georgia.
45. Kaplan, D. & Chen, J. (2010). A Bayesian Perspective on Methodologies for Drawing Causal Inferences in Experimental and Non-Experimental Settings. Paper Presented at the 2010 annual research conference of the Society for Research on Educational Effectiveness. Washington, DC.
46. Kaplan, D. & Keller, B. (2009). Cluster effects in the latent class model. Presented at the 2009 meeting of the Society for Multivariate Experimental Psychology. Salishan, Oregon.
47. Kaplan, D. (2009) Advances in multilevel latent variable models for PISA data. Presented at the PISA Research Conference, Kiel Germany.
48. Kaplan, D. & Depaoli, S. (2009). Misspecification in the latent Markov model. Presented at the 2009 Joint Statistical Meetings. Washington, DC.
49. Kaplan, D. & Keller, B. (2009). Cluster effects in the latent class model. Presented at the International Meeting of the Psychometric Society, University of Cambridge, UK.
50. Kaplan, D. (2009). Discussant for AERA Symposium: Multilevel models: The next generation. Presented at the annual meeting of the American Educational Research Association, April 12-18th, San Diego, CA.
51. Kaplan, D. & Depaoli, S. (2008). Two studies of specification error for models with categorical latent variables. Paper Presented at the 2008 annual meeting of the Society for Multivariate Experimental Psychology, Sept. 25th Ð 27th, Montreal, Quebec, Canada.
52. Kaplan, D. (2008). Statistical considerations in a counterfactual theory of causation for non-experimental studies with implications for structural equation modeling. Paper Presented to the International Meeting of the Psychometric Society, Durham, NH.
53. Kaplan, D. (2008). Discussant at National Conference on Value-Added Modeling. University of Wisconsin-Madison.
54. Kaplan, D. (2008). Statistical considerations in a counterfactual theory of causation for non-experimental studies: The problem of weak exogeneity. Paper Presented at the 2008 Annual Research Conference of the Society of Research on Educational Effectiveness, Crystal City, VA.
55. Kaplan, D. (2007). A Markov chain modeling perspective on the development of reading competencies in young children. Paper Presented at the 2007 meeting of the Society for Multivariate Experimental Psychology. Oct 18th Ð 20th, Chapel Hill, NC.
56. Kaplan, D. (2007). Exogeneity, invariance, and causal inference in structural equation models. Paper Presented at the 2007 annual meeting of the American Psychological Association, San Francisco, CA.

57. Kaplan, D. (2007). A multivariate time-series of offensive baseball performance: 1901-2005. Paper Presented at the 37th annual meeting of the Society for American Baseball Research. St. Louis, Missouri.
58. Kaplan, D. (2007). Causal Inference in Policy Research. Paper Presented at the 2007 annual meeting of the American Educational Research Association, Chicago, IL
59. Kaplan, D. (2007). Super exogeneity, parameter invariance, and their implications for causal inference in educational research. Paper Presented at the 2007 annual meeting of the American Educational Research Association, Chicago, IL
60. Kaplan, D. (2006). Weak, strong, and super-exogeneity. Their importance for drawing causal inferences in social and behavioral science research. Paper Presented at the 2006 annual meeting of the Society for Multivariate Experimental Psychology, October 19-21, Lawrence, KS.
61. Kaplan, D. (2005). Is there an "I" in team? A variance decomposition of offensive baseball performance. Paper Presented at the 35th annual meeting of the Society for American Baseball Research. Toronto, Canada.
62. Kaplan, D. (2006). Discussant for AERA symposium: Methodological developments in international educational research. Experiences from the OECD PISA study. San Francisco, CA.
63. Kaplan D. (2005). A multilevel mixture event history approach to modeling the diffusion of innovations in educational settings. National Science Foundation Principal Investigators Annual Meeting. December 8-9, Arlington, VA.
64. Kaplan, D. (2005). Combining mixture event history models with social network structure as a framework for modeling the diffusion of innovations. Paper Presented at the 2005 annual meeting of the Society for Multivariate Experimental Psychology, October 5 - 8, Lake Tahoe, CA.
65. Kaplan, D. (2004). Finite mixture dynamic regression analysis with implications for dynamic multiplier analysis. Paper Presented at the 2004 annual meeting of the American Educational Research Association, San Diego, CA.
66. Kaplan, D. (2004). An application of latent transition analysis to the development of reading competencies in young children: Evidence from ECLS-K. Paper Presented at the 2004 annual meeting of the American Educational Research Association, San Diego, CA.
67. Kaplan, D. (2003). Finite mixture dynamic regression analysis with implications for dynamic multiplier analysis. Paper Presented at the 2003 annual meeting of the Society for Multivariate Experimental Psychology, September 18-20, Keystone, Colorado.
68. Kaplan, D. (2003). Methodological Advances in the Analysis of Individual Growth with Relevance to Education Policy. Paper Presented at the 2003 annual meeting of the American Educational Research Association. Chicago, IL.

69. Kaplan, D. (2003). Strong exogeneity and Granger Non-Causality in Linear Statistical Models. Paper Presented at the 2003 annual meeting of the American Educational Research Association. Chicago, IL.
70. Kaplan, D. (2003). ICT skills, practices, and attitudes in the US. Paper Presented at the 2003 annual meeting of the American Educational Research Association. Chicago, IL.
71. Kaplan, D. (2002). Extensions of linear dynamic multiplier analysis to multivariate regression and multilevel modeling. Paper Presented at the 2002 annual meeting of the Society for Multivariate Experimental Psychology, October 17-19, Charlottesville, VA.
72. Kaplan, D. (2002). Modeling sustained educational change with panel data: The case for dynamic multiplier analysis. Paper Presented at the annual meeting of the American Educational Research Association. New Orleans, Louisiana.
73. Kaplan, D. & Kreisman, M. B. (2001). An application of multilevel covariance structure modeling of relevance to education policy. Paper Presented at the annual meeting of the American Educational Research Association. Seattle, Washington.
74. Kaplan, D. (2000). Cross-sectional estimation of dynamic structural equation models in disequilibrium. Presented to the International Symposium on Structural Equation Modeling. St. Charles, Illinois.
75. Kaplan, D. (2000). Stability and equilibrium in structural equation models. Presented to the International Conference on Measurement and Multivariate Analysis. Banff, Alberta, Canada.
76. Kaplan, D. (2000). Exogeneity in linear statistical models. Paper Presented at the 2000 annual meeting of the American Educational Research Association. New Orleans, Louisiana.
77. Kaplan, D. (2000). Exogeneity in structural equation models. Paper Presented at the 2000 annual meeting of the American Educational Research Association. New Orleans, Louisiana.
78. Kaplan, D. (2000). Secondary statistical modeling with the NAAL: Implications for the design of the background questionnaire. Symposium paper Presented at the 2000 annual meeting of the American Educational Research Association. New Orleans, Louisiana.
79. Kaplan, D. (1999). Dynamic multipliers in single level and multilevel models. Paper Presented at the annual meeting of the American Educational Research Association. Montreal, Canada.
80. Kaplan, D. (1999). Statistical models applied to national data sets for informing education policy. Symposium paper Presented at the annual meeting of the American Educational Research Association. Montreal, Canada
81. Kaplan, D. (1999). Discussant for AERA paper session. Topics in structural equation modeling. Montreal, Canada
82. Kaplan, D. (1998). On the assumptions associated with the application of the propensity score adjustment method to latent variable models. Paper Presented the annual meeting of the American Educational Research Association. San Diego, CA.

83. Kaplan, D. & Ferguson, A. J. (1998). On the utilization of sampling weights in latent variable models. Paper Presented at the annual meeting of the American Educational Research Association. San Diego, CA.
84. Kaplan, D. (1998). Discussant for AERA symposium. Modeling Non-Normal Data. San Diego, CA.
85. Kaplan, D. (1996). Evaluating latent variable models using ex post simulation. Paper Presented at the North American Meeting of the Psychometric Society, Banff, Alberta, Canada.
86. Kaplan, D. (1996). On the extension of the propensity score adjustment method to covariance structure modeling. Paper Presented at the annual meeting of the American Educational Research Association. New York, New York.
87. Kaplan, D. (1996). Discussant for AERA paper session. Latent trait model fit. New York, New York.
88. Kaplan, D., Zuzovsky, R., & Tamir, P. (1996). Parental involvement as perceived by Israeli pupils and their parents: A comparison of urban and kibbutz families. Symposium paper Presented at the annual meeting of the American Educational Research Association. New York, New York.
89. Kaplan, D. (1995). Literacy and voting behavior: A bivariate probit model with sample selection. Symposium paper Presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
90. Kaplan, D. & Elliott, P. R. (1995). Centering problems in multilevel covariance structure modeling. Paper Presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
91. Kaplan, D., & Elliott, P. R. (1995). Validating science education indicators through quantitative policy modeling: Evidence from NELS:88. Paper Presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
92. Kaplan, D., & Elliott, P. R. (1994). A policy guidance system for science achievement: An application of multilevel structural equation modeling. Paper Presented at the annual meeting of the American Educational Research Association. New Orleans, Louisiana.
93. Kaplan, D., & Elliott, P. R. (1994). On the utility of multilevel structural equation modeling for building an educational policy guidance system. Paper Presented at the annual meeting of the American Educational Research Association. New Orleans, Louisiana.
94. Kaplan, D. (1994). Discussant for AERA paper session: Theoretical developments and educational applications of covariance structure analysis. New Orleans, Louisiana.
95. Kaplan, D., & Wenger, R. N. (1993). Asymptotic independence and separability in covariance structure models: Implications for specification error, power, and model modification. Paper Presented at the meeting of the American Educational Research Association. Atlanta, Georgia.

96. Kaplan, D. (1992). Colinearity diagnostics for covariance structure models. Presented at the meeting of the Psychometric Society. Columbus, OH.
97. Kaplan, D. (1992). Assessing the factor structure of data arising from balanced incomplete block spiralling designs. Presented at the meeting of the American Educational Research Association. San Francisco, CA.
98. Kaplan, D. (1992). Colinearity diagnostics for covariance structure models. Presented at the meeting of the American Educational Research Association. San Francisco, CA.
99. Kaplan, D., & Wenger, R. N. (1991). Asymptotic independence and separability in covariance structure models. Presented at the European meeting of the Psychometric Society. Trier, Germany.
100. Kaplan, D., & Wenger, R. N. (1991). Asymptotic independence and separability in covariance structure models. Presented at the joint meeting of the Classification Society and Psychometric Society. New Brunswick, NJ.
101. Kaplan, D. (1991). A Monte Carlo study of three weighted least squares estimators for structured means analysis with non-normal Likert variables. Presented at the meeting of the American Educational Research Association. Chicago, IL
102. Kaplan, D. (1991). A study of the power associated with testing factor mean differences under violations of factorial invariance. Presented at the meeting of the American Educational Research Association. Chicago, IL.
103. Kaplan, D. (1990). The behavior of three weighted least squares estimators for structured means analysis with non-normal Likert variables. Presented at the meeting of the Psychometric Society. Princeton, NJ.
104. Kaplan, D. (1990). A multistage method for studying mean structures in multiple group higher order confirmatory factor analysis. Presented at the meeting of the American Educational Research Association. Boston, MA.
105. Kaplan, D. (1990). Alternative fit indices in covariance structure modeling: Just say whoa! Presented at the meeting of the American Educational Research Association. Boston, MA.
106. Kaplan, D. (1990). Discussant for AERA/NCME symposium: The assessment of test anxiety: Applications of covariance modeling to issues of construct validation. Boston, MA
107. Kaplan, D. (1989). Power of the likelihood ratio test in multiple group confirmatory factor analysis under partial measurement invariance. Presented at the 6th European meeting of the Psychometric Society. Leuven, Belgium.
108. Kaplan, D. (1989). On the modification and selection of competing covariance structure models. Presented at the meeting of the American Educational Research Association. San Francisco, CA.

109. Kaplan, D. (1989). On the utility of classical statistical theory for building and evaluating covariance structure models. Presented at the meeting of the American Educational Research Association. San Francisco, CA.
110. Kaplan, D. (1988). On specification error problems in covariance structure models. Presented at the meeting of the Psychometric Society. Los Angeles, CA.
111. Kaplan, D. (1988). Modification of structural equation models: Application of the expected parameter change statistic. Presented at the meeting of the American Educational Research Association. New Orleans, LA.
112. Kaplan, D. (1988). A Monte Carlo study of the sampling variability and z-values of parameter estimates for misspecified structural equation models. Presented at the meeting of the American Educational Research Association. New Orleans, LA.
113. Kaplan, D. (1987). The impact of specification error on the estimation, testing, and improvement of structural equation models. Presented at the meeting of the American Educational Research Association. Washington, D.C.
114. Muthén, B., & Kaplan, D. (1985). On comparing item characteristic curve parameters across groups. Presented at the meeting of the American Educational Research Association. Chicago, IL.
115. Muthén, B., Kaplan, D., & Hollis, M. (1985). Latent variable modeling with missing data: Attrition in longitudinal studies. Presented at the meeting of the American Educational Research Association. Chicago, IL.
116. Muthén, B., & Kaplan, D. (1984). A comparison of some methodologies for the factor analysis of non-normal Likert variables. Presented at the meeting of the American Educational Research Association. New Orleans, LA.

**Software.** (All code can be found at <http://bmer.wceruw.org/publications.html>)

- Lyu, W., Yavuz, S., Chen, J., & Kaplan, D. (2022). ShinyBHB. A Shiny based software program that conducts Bayesian historical borrowing for single level, multilevel, and longitudinal data.
- Yavuz, S. & Kaplan, D. (2019). miBMA. An R program to conduct multiple imputation using Bayesian model averaging.
- Lee, C., & Kaplan, D. (2015). BMASEM. An R program that conducts Bayesian model averaging for structural equation models.
- Chen, J., Sanchez, F., & Kaplan, D. (2014). BayesPSA. An R program to conduct Bayesian propensity score analysis and covariate balance tests via MCMC or Bayesian model averaging.

**Current Consulting/Policy Advising Activities**

- 2014 – Present: Member NAEP Design and Analysis Committee
- 2014 – Present: Member, NAEP Questionnaire Standing Committee



- 2004 – Present: Member, Questionnaire Expert Group, OECD/Programme on International Student Assessment (PISA). Chair of PISA QEG from 2014–2016.

### **Completed Consulting/Policy Advising Activities**

- 2016 – 2017: Member NAEP Grants Advisory Panel
- 2015 – 2017: Member TALIS 2018 Questionnaire Expert Group
- 2014 – 2016: Chair, PISA 2015 Questionnaire Expert Group
- 2012 – 2013: Chair, Statistics and Modeling Panel, Institute of Education Sciences.
- 2009 – 2010: Member, Technical Working Group. Turnaround Schools. (Contract awarded to American Institutes for Research).
- 2009 – 2010: Member, Technical Working Group, Evaluation of State and Local Implementation of Title III Standards, Assessments, and Accountability Systems. (Contract awarded to American Institutes for Research).
- 2007 – 2010: Member, Technical Working Group, Reading First Implementation Evaluation. (Contract awarded to Abt Associates)
- 2007 – 2009: Consultant, Wisconsin Institutes for Discover Seed Grant: Toward A Neuroscience Of Education: Plasticity, Experience, and Educational Achievement
- 2005 – 2009: Member, Technical Advisory Group, OECD/Programme on International Student Assessment.
- 2004 – 2009: Senior Statistical Consultant, NSF funded Mathematics and Science Partnership Program Grant (awarded to WESTAT).
- 2002: Consultant, US Department of Education. Comprehensive School Reform Research Studies.
- 2001 – 2002: Member, Technical Working Group, US Department of Education. Evaluation of the Reading Excellence Act.
- 1999 – 2003: Consultant/Statistician, OECD-CERI, Quasi-Experimental Studies of Student Learning.
- 1998 – 1999: Consultant, US Department of Education (NCES). Development of the background questionnaire for the National Assessment of Adult Literacy

### **Memberships in Professional Societies**

- American Statistical Association
- International Society for Bayesian Analysis
- National Council on Measurement in Education

- Psychometric Society
- Society for Multivariate Experimental Psychology (Elected member in 2001)
- Society for American Baseball Research

### **Service to Professional Organizations**

- 2022 – 2025: President Elect, President, Immediate Past President, Psychometric Society.
- 2020 – 2025: Member, Board of Trustees, Psychometric Society
- 2018 – 2021: Chair, Research Advisory Committee, National Academy of Education
- 2017 – 2018: Member, Research Advisory Committee, National Academy of Education
- 2017 – 2018: President, Society of Multivariate Experimental Psychology
- 2015 – 2018: Board of Trustees, Society for Multivariate Experimental Psychology
- 2014 – 2015: Member, Scientific Committee, IEA International Research Conference
- 2009 – 2012: Board of Trustees, Psychometric Society
- 2010 – 2011: Dissertation Awards Committee, Psychometric Society
- 2008 – 2009: Conference Co-Chair, SREE
- 2007 – 2009: Chair, AERA Research Advisory Committee
- 2006 – 2007: Member AERA Research Advisory Committee
- 2000 – 2001: Member, AERA Division D Nominating Committee
- 1994 Program Chair, AERA Division D, Section 3a

### **Service on Editorial Boards**

- 2020 – Present; Member, Editorial Board, Measurement Instruments for the Social Sciences
- 2020 – Present; Member, Editorial Board, Springer Statistics for Social and Behavioral Sciences Series
- 2020 – 2021; Chair, Editorial Council, Psychometric Society (also member Board of Trustees)
- 2020 – 2021: Associate Editor, *Psychological Methods*
- 2020 – Present: Member, Editorial Council, Psychometric Society
- 2019 – Present: Editorial Board, Springer *Methodology of Educational Measurement and Assessment* book series
- 2013–2018: Member, Editorial Advisory Board, *Multivariate Behavioral Research*

- 2008–2019: Editorial Board, *Journal of Research on Educational Effectiveness*
- 1998–Present: Editorial Board, *Structural Equation Modeling*
- 2009–2011: Associate Editor, *Multivariate Behavioral Research*

**Past Service on Editorial/Advisory Boards:** *Educational and Psychological Measurement; Journal of Educational Research; Encyclopedia of Social Science Research Methods (Sage Publications); Science Education; Educational Evaluation and Policy Analysis, Journal of Educational and Behavioral Statistics (Management Committee and Associate Editor).*

**Occasional Reviewer:** *American Educational Research Journal; Behaviormetrika; British Journal of Mathematical and Statistical Psychology; Child Development; Computational Statistics and Data Analysis; Educational Evaluation and Policy Analysis; Journal of Educational Measurement; Journal of Educational Research; Journal of Special Education; Journal of Studies on Alcohol; Measurement and Evaluation in Counseling and Development; Multivariate Behavioral Research; Structural Equation Modeling; Organizational Research Methods; Psychological Bulletin; Psychometrika; Science Education; Sociology of Education; AERA Division D; APA Division 5.*

#### **Grant Reviewer Boards and Study Sections (as needed)**

- U.S. Dept. of Education (OERI, IES, NCES)
- National Institutes of Health (NICHD, NIMH, NIGMS)
- National Science Foundation (SBE, EHR)
- The Spencer Foundation
- Research Grants Council (Hong Kong)
- Israel Science Foundation
- Deutsche Forschungsgemeinschaft (German National Science Foundation)

#### **University, School, and Department Service (at UW-Madison)**

- Chair, Recruitment, Admissions, Fellowship, and Awards Committee (2024-present)
- Member, Director’s Advisory Committee, WCER (2023-2025)
- Member, Department Elections Committee, 2021 – 2022
- Member, School of Education Global Education Committee (2011 – 2012; 2016 – 2017; 2020–Present)
- Member/Chair, Department Faculty Review Committee (2017–2022, 2023–2024)
- Member, Internal Grant Review Committee: Contemporary Social Problems (2019)
- Member, Department Faculty and Staff Honors Committee (2016–2017)

- Member, School of Education Information Technology Policy Advisory Committee (ITPAC) (2017 )
- Chair, Quantitative Methods Program Area (2016 – 2017)
- Chair, Search Committee for the Dean of the School of Education (2014)
- Member, WCER Director’s Advisory Council (2014 – 2015)
- Member, School of Education Ad Hoc Budget Committee (2011)
- Chair/member, Department Recruitment, Admissions, and Fellowship Committee (2006 – 2007, 2010 – 2011, 2023–2024)
- Chair, Social Sciences Divisional Executive Committee (2009 – 2010)
- Member, Social Sciences Divisional Executive Committee (2007 – 2009)
- Member, Department Executive Committee (ongoing)
- Member, Department Junior Faculty Mentoring Committee (as needed)

### Supervised Dissertations

- Yen Lee (2020, UW-Madison). *Generalized Maximum Entropy Estimator for Exploratory Factor Analysis*. (Lecturer in Quantitative Methods, Edgewood College and Associate Researcher, Wisconsin Center for Education Research)
- Dan Su (2018, UW-Madison). *Planned Missing Data Designs for Causal Inference in Large Surveys: Design and Imputation*.
- Chansoon Lee (2017, UW-Madison). *Variable Importance Measures for Parsimonious Model Selection: Comparison of Tree Models and Bayesian Model Averaging with Application to Prediction of College Graduation*. (Measurement Scientist, American Board of Internal Medicine)
- Soojin Park (2016, UW-Madison). *Bayesian causal mediation analysis for group randomized designs*. (Assistant Professor, UC-Riverside)
- Jianshen (Cassie) Chen (2014, UW-Madison). *A Bayesian propensity score approach for multilevel observational studies*. (Senior Research Scientist, The College Board)
- Sarah Depaoli (2010, UW-Madison). *Specification issues in Bayesian growth mixture modeling*. Winner of APA Dissertation Award. (Professor, UC-Merced)
- Sweetman, H. M. (2006, U. Delaware). Categorical latent variable modeling approaches to the study of neighborhood advantage, social capital, and their relationship to academic outcomes in the early elementary school years. (Consultant, Sweetman Evaluation)
- Brown, L. M. (2004, U. Delaware). A growth curve modeling approach to the study of pacing in a licensure examination.

- Folske, J. C. (2003, U. Delaware). On the performance of full-information maximum likelihood estimation assuming missingness at random for general growth mixture models: A Monte Carlo study. (Executive Director, Advanced Analytics, Commercial Analytics Strategy. Merck, Zurich, Switzerland)
- Kreisman, M. B. (2001, U. Delaware). Evaluating academic outcomes of Head Start an application of general growth mixture modeling.
- Molock, J. W. (2001, U. Delaware). Modeling selection bias in multilevel linear models. (Executive Director of Institutional Effectiveness, Planning and Assessment, Bryn Mawr College).
- Ferguson, A. J. (1999, U. Delaware). Utilizing structural equation modeling for education policy analysis: an instruments-targets and goal programming approach. (Deputy Technical Director, National Security Agency)
- George, R. (1997, U. Delaware). Multivariate latent variable growth modeling of attitudes toward science: An analysis of the Longitudinal Study of American Youth. (Professor, Albany State University)
- Elliott, P. R. (1996, U. Delaware). A multilevel model of mathematics achievement: Its use for validation of education indicators.