

DAVID KAPLAN, Ph.D.

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Current Research Interests

- Bayesian inference for latent variable models
- Causal inference in observational studies
- Developing statistical models for the social and behavioral sciences
- Statistical models for Major League Baseball Data

Education

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

Positions and Employment

- 2006 – Present: Professor, Department of Educational Psychology, University of Wisconsin-Madison.
- 1998 – 2006: Professor, School of Education, University of Delaware.
- 1992 – 1998: Associate Professor, School of Education, University of Delaware.
- 1987 – 1992: Assistant Professor, School of Education, University of Delaware.

Program and Department Affiliations

- Department of Population Health Sciences
- Prevention Sciences Program
- The Gaylord Nelson Institute for Environmental Studies

Fellowships, Honors, and Awards

- Vilas Associate Award, University of Wisconsin-Madison (2008 – 2010)
- Distinguished Faculty Award, School of Education, University of Delaware

- AERA Publications Committee Award for Outstanding Reviewing, *Journal of Educational and Behavioral Statistics* (awarded in 2003, 2004, and 2006).
- Jeanne Griffith Fellow, National Center for Education Statistics, Washington, DC. 2001 – 2002

Visiting Professorships

- Hebrew University of Jerusalem; January, 1997; January, 1998; January, 1999
- University of Milano-Bicocca; January, 2001

Research Grants

1. **Co-Principal Investigator** Institute of Educational Sciences (U.S. Department of Education). Evidence Reviews for What Works Clearinghouse (Mathematica Policy Research, prime contractor). 2007-2012. Amount: \$1,377,286. PI: Adam Gamoran;
2. **Principal Investigator** National Science Foundation (# REC-0404914). Developing Statistical Models for the Diffusion of Educational Policies and Interventions. 2004-2006. Amount: \$100,351.
3. **Co-Principal Investigator** National Institute of Child Health and Human Development. A developmental study of mathematics disabilities (Competitive renewal). 2003-2008. Amount: \$1,687,000. PI: Nancy Jordan
4. **Co-Principal Investigator** National Institute of Child Health and Human Development. A developmental study of mathematics disabilities. 1999-2002. Amount: \$449,216. PI: Nancy Jordan
5. **Principal Investigator** The Spencer Foundation. Developing longitudinal statistical models for education policy. 1998-2001. Amount: \$125,000.
6. **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.
7. **Principal Investigator** National Science Foundation (# REC-9550472). Model-based indicator systems for informing science education policy. 1995-1997. Amount: \$168,516.
8. **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
9. **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.
10. **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.

11. **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.
12. **Principal Investigator** University of Delaware General University Research Grant. Project title: Specification error issues in multiple populations. 1988-1989. Amount: \$5,000

Books

1. Kaplan, D. (2009). *Structural Equation Modeling: Foundations and Extensions (2nd Edition)*. Newbury Park, CA: SAGE Publications.
2. Kaplan, D. (Ed.) (2004). *The SAGE Handbook of Quantitative Methodology in the Social Sciences*. Newbury Park, CA: SAGE Publications.
3. Kaplan, D. (2000). *Structural Equation Modeling: Foundations and Extensions*. Newbury Park, CA: Sage Publications.

Peer Reviewed Publications

1. 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.
2. 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.
3. Kaplan, D. (2008). An overview of Markov chain methods for the study of stage-sequential developmental processes. *Developmental Psychology*, *44*, 457-467.
4. 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>
5. 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.
6. 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.
7. Kaplan, D. (2006). A variance decomposition of offensive baseball performance. *Journal of Quantitative Analysis in Sports*. <http://www.bepress.com/jqas/vol2/iss3/2>
8. 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.

9. 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.
10. 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.
11. 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.
12. 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.
13. Kaplan, D. (2002). Methodological advances in the analysis of individual growth with relevance to education policy. *Peabody Journal of Education*, 77, 189-215.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. Kaplan, D. & Ferguson, A. J. (1999). On the utilization of sample weights in latent variable models. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 305-321.
20. Kaplan, D., & George, R. (1998). Evaluating latent variable growth models through ex post simulation. *Journal of Educational and Behavioral Statistics*, 23, 216-235.
21. 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.
22. 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.

23. Kaplan, D., & Elliott, P. R. (1997). A didactic example of multilevel structural equation modeling applicable to the study of organizations. *Structural Equation Modeling: A Multidisciplinary Journal*, 4, 1-24.
24. 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.
25. Kaplan, D., & George, R. (1995). A study of the power associated with testing factor mean differences under violations of factorial invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 2, 101-118.
26. Kaplan, D., & Venezky, R. L. (1994). Literacy and voting behavior: A bivariate probit model with sample selection. *Social Science Research*, 23, 350-367.
27. Kaplan, D. (1994). Estimator conditioning diagnostics for covariance structure models. *Sociological Methods and Research*, 23, 200-229.
28. 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.
29. 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.
30. Muthn, 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.
31. 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.
32. Kaplan, D. (1991). On the modification and predictive validity of covariance structure models. *Quality and Quantity*, 25, 307-314.
33. Kaplan, D. (1990). Evaluating and modifying covariance structure models: A review and recommendation. *Multivariate Behavioral Research*, 25, 137-155.
34. Kaplan, D. (1990). Rejoinder on evaluating and modifying covariance structure models. *Multivariate Behavioral Research*, 25, 197-204.
35. 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.
36. 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.

37. Kaplan, D. (1989). Model modification in covariance structure analysis: Application of the expected parameter change statistic. *Multivariate Behavioral Research*, *24*, 285-305.
38. 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.
39. Kaplan, D. (1989). The problem of error rate inflation in covariance structure models. *Educational and Psychological Measurement*, *49*, 333-337.
40. 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.
41. Kaplan, D. (1988). The impact of specification error on the estimation, testing, and improvement of structural equation models. *Multivariate Behavioral Research*, *23*, 69-86.
42. Muthén, B., Kaplan, D., & Hollis, M. (1987). On structural equation modeling with data that are not missing completely at random. *Psychometrika*, *51*, 431-462.
43. 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.

Book Chapters, Annual Volumes, Conference Proceedings

1. 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.
2. 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*. New York: Taylor and Francis.
3. 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.
4. 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.
5. 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.
6. 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.

7. 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.
8. Kaplan, D. (1998). Methods for multilevel data analysis. In G. A. Marcoulides (ed.), *Modern Methods for Business Research*. Mahwah, NJ: Lawrence Erlbaum and Associates.
9. 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).
10. 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.
11. 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.
12. 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 Statistic 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: Macmillian.

Book Reviews

1. Kaplan, D. (1994). [Review of Structural Equation Modeling with EQS and EQS/Windows: Basic Concepts, Applications, and Programming]. *Applied Psychological Measurement.*, 18, 191-192.
2. Kaplan, D. (1993). [Review of Testing Structural Equation Models]. *Structural Equation Modeling*, 1, 98-99.
3. 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. (2009). Report on the Improvement of Multilevel Analyses for PISA Data. OECD Unpublished Commissioned Review Paper. Paris: OECD.
2. 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.
3. 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.
4. 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
5. 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.
6. 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 Workshops

1. Kaplan, D. (2009). Multilevel latent variable modeling with PISA data. Invited presentation to the OECD/EDU/IA Secretariat. Paris, France.
2. 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.
3. 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.

4. Kaplan, D. (2008). Developments and Applications of Markov Modeling for Panel Data. Presented to the German Institute for International Educational Research, Frankfurt, Germany.
5. Kaplan, D. (2008). Exogeneity in the Social and Behavioral Sciences. Presented to the Faculty of the Behavioral Sciences, University of Twente, Enschede, The Netherlands.
6. 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.
7. 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.
8. Kaplan, D. (2007). Issues of Causality and Exogeneity in Educational Research. Presented to the German Institute for International Educational Research, Frankfurt, Germany.
9. Kaplan, D. (2007). Developments in Multilevel Structural Equation Modeling. Presented to the German Institute for International Educational Research, Frankfurt, Germany.
10. Kaplan, D. (2007). Representing a Research Problem as a Structural Equation Model. Invited address to the Academy Colloquium Advising on Research Methods, sponsored by the Royal Netherlands Academy of Arts and Sciences, Amsterdam, The Netherlands.
11. 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.
12. 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.
13. 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
14. 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.
15. Kaplan, D. (2005). Invited Workshop on Latent Variable Modeling. Presented to the School of Education and Social Policy, Northwestern University.
16. Kaplan, D. (2005). Two studies of dynamic modeling with finite mixtures. Invited colloquium, Educational Testing Service, Princeton, NJ.
17. Kaplan, D. (2002). Co-Instructor for the AERA Institute on Statistical Analysis for Education Policy. New Orleans, Louisiana.

18. 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.
19. 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.
20. 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.
21. 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.
22. Kaplan, D. (2001). Invited Workshop on Hierarchical Linear Modeling. Presented to the Faculty of Economics, University of Milano-Bicocca, Milan, Italy.
23. 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.
24. 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.
25. Kaplan, D. (1999). Invited Workshop on Hierarchical Linear Modeling. Presented to the School of Education, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel.
26. 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.
27. Kaplan, D. (1998). Invited Workshop on Structural Equation Modeling. Presented to the School of Education, The Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel.
28. 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.
29. 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.
30. 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.

31. 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.
32. Kaplan, D. (1997). Structural Equation Modeling. Invited AERA Graduate Student Seminar Roundtable. Annual meeting of the American Educational Research Association. Chicago, IL.
33. 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.
34. 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.
35. Kaplan, D. (1995). Recent developments and future directions in structural equation modeling. Presented to the Department of Statistics, Tel Aviv University, Tel Aviv, Israel.
36. Kaplan, D. (1995). Modeling and validating science education indicators. Presented to the School of Education, Tel Aviv University, Tel-Aviv, Israel.
37. Kaplan, D. (1995). Invited participant in Conference on Analytic Uses of Longitudinal Databases. Washington, DC.
38. 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.
39. Kaplan, D. (1990). Covariance structure modeling. Presented to the Delaware Chapter of the American Statistical Association. Newark, Delaware.

Conference Presentations

1. 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.
2. Kaplan, D. (2009) Advances in Multilevel Latent Variable Models for PISA Data. Presented at the PISA Research Conference, Kiel Germany.
3. Kaplan, D. & Depaoli, S. (2009). Misspecification in the Latent Markov Model. Presented at the 2009 Joint Statistical Meetings. Washington, DC.
4. 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.
5. 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.

6. 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-27th, Montreal, Quebec, Canada.
7. 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.
8. Kaplan, D. (2008). Discussant at National Conference on Value-Added Modeling. University of Wisconsin-Madison.
9. 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.
10. 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-20th, Chapel Hill, NC.
11. 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.
12. 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.
13. Kaplan, D. (2007). Causal Inference in Policy Research. Paper presented at the 2007 annual meeting of the American Educational Research Association, Chicago, IL
14. 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
15. 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.
16. 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.
17. Kaplan, D. (2006). Discussant for AERA symposium: Methodological developments in international educational research. Experiences from the OECD PISA study. San Francisco, CA.
18. 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.

19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. Kaplan, D. (2000). Stability and Equilibrium in Structural Equation Models. Presented to the International Conference on Measurement and Multivariate Analysis. Banff, Alberta, Canada.
31. Kaplan, D. (2000). Exogeneity in Linear Statistical Models. Paper presented at the 2000 annual meeting of the American Educational Research Association. New Orleans, Louisiana.

32. Kaplan, D. (2000). Exogeneity in Structural Equation Models. Paper presented at the 2000 annual meeting of the American Educational Research Association. New Orleans, Louisiana.
33. 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.
34. 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.
35. 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
36. Kaplan, D. (1999). Discussant for AERA paper session. Topics in Structural Equation Modeling. Montreal, Canada
37. 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.
38. 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.
39. Kaplan, D. (1998). Discussant for AERA symposium. Modeling Non-Normal Data. San Diego, CA.
40. 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.
41. 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.
42. Kaplan, D. (1996). Discussant for AERA paper session. Latent Trait Model Fit. New York, New York.
43. 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.
44. 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.
45. 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.

46. Kaplan, D., & Elliott, P. R. (1995). Validating science education indicators through quantitative policy modeling: Evidence from NELLS:88. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
47. 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.
48. 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.
49. Kaplan, D. (1994). Discussant for AERA paper session: Theoretical developments and educational applications of covariance structure analysis. New Orleans, Louisiana.
50. 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.
51. Kaplan, D. (1992). Colinearity diagnostics for covariance structure models. Presented at the meeting of the Psychometric Society. Columbus, OH.
52. 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.
53. Kaplan, D. (1992). Colinearity diagnostics for covariance structure models. Presented at the meeting of the American Educational Research Association. San Francisco, CA.
54. 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.
55. 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.
56. 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
57. 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.
58. 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.

59. 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.
60. 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.
61. Kaplan, D. (1990). Discussant for AERA/NCME symposium: The assessment of test anxiety: Applications of covariance modeling to issues of construct validation. Boston, MA
62. 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.
63. 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.
64. 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.
65. Kaplan, D. (1988). On specification error problems in covariance structure models. Presented at the meeting of the Psychometric Society. Los Angeles, CA.
66. 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.
67. 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.
68. 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.
69. 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.
70. 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.
71. 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.

Selected Consulting/Policy Advising Activities

- 2009 – Present: Member, Technical Working Group. Turnaround Schools. (Contract awarded to American Institutes for Research).
- 2009 – Present: 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 – Present: Member, Technical Working Group, Reading First Implementation Evaluation. (Contract awarded to Abt Associates)
- 2004 – Present: Member, Questionnaire Expert Group, OECD/Programme on International Student Assessment (PISA) 2006.
- 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

Professional Societies

- American Educational Research Association
- American Psychological Association
- American Statistical Association (Bayesian Statistical Science, Social Statistics, and Sports Statistics sections)
- Institute of Mathematical Statistics
- International Society for Bayesian Analysis
- Psychometric Society

- Society for American Baseball Research
- Society for Multivariate Experimental Psychology (Elected member in 2001)
- Society for Research on Educational Effectiveness (Charter member)

Service to Professional Organizations

- 2009–2012 Board of Trustees, 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

Current Service on Editorial Boards

- Management Committee, *Journal of Educational and Behavioral Statistics*
- Associate Editor, *Journal of Educational and Behavioral Statistics*
- Associate Editor, *Multivariate Behavioral Research*
- Editorial Board, *Structural Equation Modeling*

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. 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; Organizational Research Methods; Psychological Bulletin; Psychometrika; Science Education; Sociology of Education; Structural Equation Modeling; AERA Division D; APA Division 5.*

Grant Reviewer Boards and Study Sections

- 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)

University, School, and Department Service

- Member, Social Sciences Division Executive Committee (2007 – present)
- Member, Department Executive Committee (2006 – present)
- Member, Department Junior Faculty Mentoring Committee (as needed)
- Member, Department Recruitment, Admissions, and Fellowships Committee (2006 – present)

Supervised Dissertations

- Sweetman, H. M. (2006). 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.
- Brown, L. M. (2004). A growth curve modeling approach to the study of pacing in a licensure examination.
- Folske, J. C. (2003). On the performance of full-information maximum likelihood estimation assuming missingness at random for general growth mixture models: A Monte Carlo study.
- Kreisman, M. B. (2001). Evaluating academic outcomes of Head Start an application of general growth mixture modeling.
- Molock, J. W. (2001). Modeling selection bias in multilevel linear models.
- Ferguson, A. J. (1999). Utilizing structural equation modeling for education policy analysis: an instruments-targets and goal programming approach.
- George, R. (1997). Multivariate latent variable growth modeling of attitudes toward science: An analysis of the Longitudinal Study of American Youth.
- Elliott, P. R. (1996). A multilevel model of mathematics achievement: Its use for validation of education indicators.