
Division 5 (Evaluation, Measurement and Statistics)

Invited address: John Graham, PhD, "Statistical, practical and design issues in analysis with missing data."

Chair: Stephen G. West, PhD

Relevant Bibliography

- Allison, P. D. (1987). Estimation of linear models with incomplete data. In C. Clogg (Ed.), *Sociological Methodology 1987* (pp. 71-103). San Francisco: Jossey Bass.
- Arbuckle, J. L., & Wothke, W. (1999). *Amos 4.0 User's Guide*. Chicago, IL: Smallwaters.
- Collins, L. M., Schafer, J. L., & Kam, C. M. (2001). A comparison of inclusive and restrictive strategies in modern missing data procedures. *Psychological Methods*, 6, 330-351.
- Dempster, A. P., Laird, N. M., & Rubin, D. B. (1977). Maximum likelihood from incomplete data via the EM algorithm (with discussion), *Journal of the Royal Statistical Society*, B39, 1-38.
- du Toit, M., & du Toit, S. (2001). *Interactive LISREL: User's Guide*. Lincolnwood, IL: Scientific Software International.
- Graham, J. W. (2003). Adding missing-data relevant variables to FIML-based structural equation models. *Structural Equation Modeling*, 10, 80-100.
- Graham, J. W., Cumsille, P. E., & Elek-Fisk, E. (2003). Methods for handling missing data. In J. A. Schinka & W. F. Velicer (Eds.). *Research Methods in Psychology* (pp. 87-114). Volume 2 of *Handbook of Psychology* (I. B. Weiner, Editor-in-Chief). New York: John Wiley & Sons.
- Graham, J. W., & Donaldson, S. I. (1993). Evaluating interventions with differential attrition: The importance of nonresponse mechanisms and use of followup data. *Journal of Applied Psychology*, 78, 119-128.
- Graham, J. W., & Hofer, S. M. (2000). Multiple imputation in multivariate research. In T. D. Little, K. U. Schnabel, & J. Baumert, (Eds.), *Modeling longitudinal and multiple-group data: Practical issues, applied approaches, and specific examples*. (pp. 201-218). Hillsdale, NJ: Erlbaum.
- Graham, J. W., Hofer, S.M., Donaldson, S.I., MacKinnon, D.P., & Schafer, J.L. (1997). Analysis with missing data in prevention research. In K. Bryant, M. Windle, & S. West (Eds.), *The science of prevention: methodological advances from alcohol and substance abuse research*. (pp. 325-366). Washington, D.C.: American Psychological Association.
- Graham, J. W., Hofer, S. M., & MacKinnon, D. P. (1996). Maximizing the usefulness of data obtained with planned missing value patterns: An application of maximum likelihood procedures. *Multivariate Behavioral Research*, 31, 197-218.
- Graham, J. W., Hofer, S. M., & Piccinin, A. M. (1994). Analysis with missing data in drug prevention research. In L. M. Collins and L. Seitz (eds.), *Advances in data analysis for prevention intervention research*. National Institute on Drug Abuse Research Monograph Series #142, pp. 13-63, Washington DC: National Institute on Drug Abuse.
- Graham, J. W., Roberts, M. M., Tatterson, J. W., & Johnston, S. E. (2002). Data quality in

- evaluation of an alcohol-related harm prevention program. *Evaluation Review*, 26, 147-189.
- Graham, J. W., & Schafer, J. L. (1999). On the performance of multiple imputation for multivariate data with small sample size. In R. Hoyle (Ed.) *Statistical Strategies for Small Sample Research*, (pp. 1-29). Thousand Oaks, CA: Sage.
- Graham, J. W., Taylor, B. J., & Cumsille, P. E. (2001). Planned missing data designs in analysis of change. In L. Collins & A. Sayer (Eds.), *New methods for the analysis of change*, (pp. 335-353). Washington, DC: American Psychological Association.
- Jöreskog, K. G., & Sörbom, D. (1996). *LISREL 8 User's Reference Guide*. Mooreseville, Indiana: Scientific Software, Inc.
- Little, R.J.A., & Rubin, D.B. (1987). *Statistical analysis with missing data*. New York: Wiley.
- Muthen, B., Kaplan, D., & Hollis, M. (1987). On structural equation modeling with data that are not missing completely at random. *Psychometrika*, 52, 431-462.
- Neale, M. C., Boker, S. M., Xie, G., & Maes, H. H. (1999). *Mx: Statistical Modeling*. Box 126 MCV, Richmond, VA 23298: Department of Psychiatry, Virginia Commonwealth University. 5th Edition.
- Rubin, D.B. (1987). *Multiple imputation for nonresponse in surveys*. New York: Wiley.
- Schafer, J.L. (1997). *Analysis of Incomplete Multivariate Data*. New York: Chapman and Hall.
- Schafer, J. L. (2001). Multiple imputation with PAN. In L. M. Collins & A. G. Sayer (Eds.), *New methods for the analysis of change* (pp. 357-377). Washington, DC: American Psychological Association.
- Schafer, J. L., & Graham, J. W. (2002). Missing data: our view of the state of the art. *Psychological Methods*, 7, 147-177.
- Schafer, J. L., and Olsen, M. K. (1998). Multiple imputation for multivariate missing data problems: A data analyst's perspective. *Multivariate Behavioral Research*, 33, 545-571.
- Wothke, W. (2000). Longitudinal and multigroup modeling with missing data. In T. D. Little, K. U. Schnabel, & J. Baumert, (Eds.), *Modeling longitudinal and multiple-group data: Practical issues, applied approaches, and specific examples*. (pp. 219-240). Hillsdale, NJ: Erlbaum.