

The Department of Educational Psychology's Research Methods, Measurement, & Evaluation (RMME) program and the Department of Statistics at the University of Connecticut present:

How Auxiliary Information Can Help Your Missing Data Problem

Dr. Jerry Reiter, Duke University
Friday, 11/05/2021, 12pm

<https://uconn-cmr.webex.com/uconn-cmr/j.php?MTID=m86ce051dbd968c3317ff09c343d31f40>

Many surveys (and other types of databases) suffer from unit and item nonresponse. Typical practice accounts for unit nonresponse by inflating respondents' survey weights, and accounts for item nonresponse using some form of imputation. Most methods implicitly treat both sources of nonresponse as missing at random. Sometimes, however, one knows information about the marginal distributions of some of the variables subject to missingness. In this talk, I discuss how such information can be leveraged to handle nonignorable missing data, including allowing different mechanisms for unit and item nonresponse (e.g., nonignorable unit nonresponse and ignorable item nonresponse). I illustrate the methods using data on voter turnout from the Current Population Survey.



Dr. Jerry Reiter graduated from Duke University with a BS in mathematics in 1992. After working for two years as an actuary, he got a Ph.D. in statistics from Harvard University in 1999. He landed back at Duke in the Department of Statistical Science in Fall 2002. From 2010-2015, he was the Mrs. Alexander Hehmeyer Professor of Statistical Science, having been appointed as a Bass Chair in recognition of "excellence in undergraduate teaching and research." Dr. Reiter received the Alumni Distinguished Undergraduate Teaching Award in 2007, the Outstanding Postdoc Mentor award in 2016, and the inaugural Distinguished Faculty Award for the Duke Master's in Interdisciplinary Data Science program in 2020. He participates in both applied and methodological research in statistical science. He is most interested in applications involving social science and public policy, although he enjoys working with researchers in all disciplines. His methodological research focuses on statistical methods for: protecting data confidentiality; handling missing data; combining information from multiple data sources; and modeling complex data. In 2015, The Atlantic published a story about his research on methods for protecting data confidentiality. He was also the Principal Investigator of the Triangle Census Research Network, an NSF-funded research center designed to improve the practice of data dissemination among federal statistical agencies. Until July 2019, he was the Deputy Director of the Information Initiative at Duke, an institute dedicated to research and applications in the analysis of large-scale (and not large-scale) data. He was appointed Chair of the Department of Statistical Science in 2019.

ONLINE INTERDISCIPLINARY SEMINARS ON STATISTICAL METHODOLOGY FOR SOCIAL AND BEHAVIORAL RESEARCH: Support for this seminar comes from Department of Educational Psychology's Research Methods, Measurement, & Evaluation (RMME) program and the Department of Statistics at the University of Connecticut (UConn), the Statistical and Applied Mathematical Sciences Institute (SAMSI), and the New England Statistical Society (NESS). This seminar aims to promote connection between the statistics and social/behavioral science communities and encourage interdisciplinary research across faculty and students.

For announcements and WebEx live streaming links, please contact Tracy Burke (tracy.burke@uconn.edu). For questions related to the seminars, please feel free to contact the session organizers, Prof. Xiaojing Wang (xiaojing.wang@uconn.edu) and/or Prof. Betsy McCoach (betsy.mccoach@uconn.edu). For information about previous and upcoming speakers, please visit <https://stat.uconn.edu/online-seminars/> or <https://rmme.education.uconn.edu/>.

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