

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

Combining Experimental and Population Data to Estimate Population Treatment Effects

Dr. Elizabeth Stuart, Johns Hopkins Bloomberg School of Public Health
Friday, 3/25/2022, 3pm

<https://uconn-cmr.webex.com/uconn-cmr/j.php?MTID=mb26cc940795502d8ae9ff7e274d435bb>

With increasing attention being paid to the relevance of studies for real-world practice (especially in comparative effectiveness research), there is also growing interest in external validity and assessing whether the results seen in randomized trials would hold in target populations. While randomized trials yield unbiased estimates of the effects of interventions in the sample of individuals in the trial, they do not necessarily inform what the effects would be in some other, potentially somewhat different, population. While there has been increasing discussion of this limitation of traditional trials, relatively little statistical work has been done developing methods to assess or enhance the external validity of randomized trial results. In addition, new "big data" resources offer the opportunity to utilize data on broad target populations. This talk will discuss design and analysis methods for assessing and increasing external validity, as well as general issues that need to be considered when thinking about external validity. The primary analysis approach discussed will be a reweighting approach that equates the sample and target population on a set of observed characteristics. Underlying assumptions and methods to assess robustness to violation of those assumptions will be discussed. Implications for how future studies should be designed in order to enhance the ability to assess generalizability will also be discussed.



Dr. Elizabeth A. Stuart is Bloomberg Professor of American Health in the Department of Mental Health at the Johns Hopkins Bloomberg School of Public Health, with joint appointments in the Department of Biostatistics and the Department of Health Policy and Management. She received her Ph.D. in statistics in 2004 from Harvard University and is a Fellow of the American Statistical Association (ASA) and the American Association for the Advancement of Science (AAAS). She has received research funding for her work from the National Science Foundation, the Institute of Education Sciences, the WT Grant Foundation, and the National Institutes of Health and has served on advisory panels for the National Academy of Sciences, the US Department of Education, and the Patient Centered Outcomes Research Institute. She received the mid-career award from the Health Policy Statistics Section of the ASA, the Gertrude Cox Award for applied statistics, Harvard University's Myrto Lefkopoulou Award for excellence in Biostatistics, and the inaugural Society for Epidemiologic Research Marshall Joffe Epidemiologic Methods award.

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/>.

Additional Session Meeting Information:

Join by video system: Dial 26207792220@uconn-cmr.webex.com
You can also dial 173.243.2.68 and enter your meeting number.

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