

Washington Statistical Society Seminar

Title: Doubly Robust Estimation of Non-Ignorable Non-Response Models of Political Survey Data

Speaker: Michael A. Bailey, PhD, Walsh Professor, Georgetown University

Chair: Katherine E. Irimata, Mathematical Statistician, National Center for Health Statistics

Date: Thursday, September 21, 2023

Time: 3:30 – 4:30 PM EDT

Abstract:

Public opinion polling struggles to deal with non-random survey data that arises from widespread non-response and non-random polling methods. Much of the literature focuses on tools built on an assumption that the non-response is ignorable (or, equivalently, "missing at random" (MAR)). However, it is plausible in many contexts that response is non-ignorable (or, equivalently, "missing not at random" (MNAR)). If we have a response instrument (preferably randomized) that affects response but does not directly affect the attribute being measured in the poll, a range of MNAR models including inverse propensity weighting (IPW) and imputation can consistently estimate population averages even when the survey outcome of interest directly influences response propensity. In this paper, I outline how to use doubly robust methods that consistently estimate the population average if either (but not necessarily both of) the MNAR IPW or MNAR imputation models is correct. I implement these methods on a national 2019 survey. There is clear evidence of MNAR non-response on turnout questions. In addition, there is evidence of MNAR non-response for subgroups. Conventionally weighted survey results appear to have understated Trump support in the Midwest in 2019 by around 10 percentage points and overstated Democratic liberalism on race and Republican support for tax cuts.

About the speaker: Michael A. Bailey is the Colonel William J. Walsh Professor of American Government in the Department of Government and the McCourt School of Public Policy at Georgetown University. His research and teaching is on public opinion polling, American politics and the Supreme Court. He is author of *Polling at the Crossroads: Rethinking Modern Survey Research*, which is due out in the spring of 2024 from Cambridge University Press. He is author of two statistics textbooks *Real Stats: Using Econometrics for Political Science and Public Policy* and *Real Econometrics: Using Econometrics for Political Science and Public Policy* and a co-author of *The Constrained Court: Law, Politics and the Decisions Justices Make* from Princeton University Press. He is interested in Japan, as well and speaks Japanese.

For additional information about this event, please contact Katherine Irimata (oui4@cdc.gov), WSS Methodology Program Chair.

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