RCMAR WORKSHOP 2026

Handling Survey Weights and Missing Data in Applied Survey Research
MARCH 20, 2026

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TEXAS RESOURCE CENTER ON MINORITY AGING RESEARCH

Sponsor: Texas Resource Center on Minority Aging Research (RCMAR) Analysis Core
Host: UTMB Department of Biostatistics and Data Science
Date: Friday, March 20, 2026 (10:00 AM — 3:00 PM CDT)
Location: Virtual

This workshop provides a practical introduction to handling survey weights and missing data in applied survey analysis. Topics include complex sampling designs, appropriate use of weights, modern imputation techniques, approaches to non-random missingness, and Bayesian methods for missing data. Nationally representative datasets such as NHANES and HRS will be used for demonstration. Participants will gain conceptual understanding and practical skills to strengthen their survey-based research.

SCHEDULE

Session 1: Introduction to Survey Data Analysis (10:00 — 11:00 AM CDT)
Instructor: Xiaoying Yu, PhD, Associate Professor
- Overview of complex survey designs (strata, clusters, weights)
- How to use sampling weights
- Common pitfalls in analyzing survey data

Session 2: Imputation for Missing Data (11:00 — 12:00 PM CDT)
Instructor: Jeong Hoon Jang, PhD, Assistant Professor
- Types of missing data (MCAR, MAR, MNAR)
- Single imputation (regression imputation, hot-deck imputation)
- Introduction to multiple imputation and key steps in practice

SCAN ME

FREE REGISTRATION

https://utmb.us/f5a

LUNCH BREAK 12:00 - 1:00PM CST

Session 3: Handling Missing Not at Random (MNAR) (1:00 — 2:00 PM CDT)
Instructor: Jeong Hoon Jang, PhD, Assistant Professor
- Why MNAR is challenging in practice
- Sensitivity analysis for missing data assumptions
- Conceptual approaches to MNAR modeling (selection model, pattern-mixture model)

Session 4: Bayesian Methods in Missing Data Analysis (2:00 — 3:00 PM CDT)
Instructor: Moumita Chakraborty, PhD, Assistant Professor
- Bayesian framework with hierarchical modeling of missing data and model parameters
- Iterative methods for Bayesian multiple imputation and inference using the EM algorithm and Gibbs sampling
- Strategies for handling MNAR in the Bayesian framework
- Sensitivity analysis with respect to (1) prior distribution (2) missing data assumptions

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