Deji Suolang

dsuolang@umich.edu
426 Thompson St, Rm 4132
Ann Arbor, MI 48104

Education

2021–2026* **University of Michigan**, Ann Arbor, MI
Ph.D., Survey and Data Science
Advisor: Dr. Brady T. West
Thesis: Combining Multiple Data Sources through an Imputation-Based Approach: Leveraging Wearable Sensor Data to Strengthen Survey Self-Reports

2018–2020 **University of Michigan**, Ann Arbor, MI
M.S., Survey and Data Science

2017 **Utrecht University**, Utrecht, the Netherlands
Exchange program, Social and Behavioral Sciences

2014–2018 **Nanjing University**, Nanjing, China
B.A., Sociology (with Distinction)

Professional Experience

2021–Present **University of Michigan**, Ann Arbor, MI
Graduate Student Research Assistant
Survey Research Center, Institute for Social Research

2024 **American Institutes for Research**, Arlington, VA
Doctoral Researcher Intern
NAEP Psychometric and Statistical Methods

2020–2021 **Johns Hopkins Medicine**, Baltimore, MD
Survey Statistican (Research Assistantship)
Department of Neurology

2018–2020 **University of Michigan**, Ann Arbor, MI
Research Associate
Survey Research Center, Institute for Social Research

*Expected.

Publications

In Preparation

1. **Suolang, D.**, Yang, J., Miller, L., Rodhouse, J. R., Page, E. T., Si, Y., & West, B. T. (2025). Weighting Adjustment and Multiple Imputation for Addressing Nonresponse in a Multi-Day Diary Survey. *Journal of Survey Statistics and Methodology (In Revision)*.
2. **Suolang, D.**, & West, B. T. (2025). Leveraging Wearable Sensor Data to Enhance Survey Self-Reports: A Mass Imputation Approach. *Journal of Survey Statistics and Methodology (Under Review)*.
3. **Suolang, D.**, & West, B. T. (TBD). Assessing the Generalizability of Imputation-Based Integration of Wearable Sensor Data and Survey Self-Reports: Evidence from a Simulation Study. *Journal TBD*.

Peer-Reviewed Articles

1. Wagner, J., West, B. T., Kim, B., **Suolang, D.**, Engstrom, C., & Sinibaldi, J. (2025). Using a Stopping Rule to Optimize Cost-Quality Tradeoffs in a Large, Mixed-Mode Survey: A Simulation Study. *Journal of Official Statistics*, 41(1), 329-364.
2. Gupta, S., Chen, B. J., **Suolang, D.**, Cooper, R., Gottesman, R., & Faigle, R. (2023). Advance Directives Among Community-Dwelling Stroke Survivors (P6-5.016). *PLOS ONE*, 18(10).
3. Chen, B. J., **Suolang, D.**, Frost, N., & Faigle, R. (2022). Practice Patterns and Attitudes Among Speech Language Pathologists Treating Stroke Patients with Dysphagia: A Nationwide Survey. *Dysphagia*, 37(6).
4. **Suolang, D.**, Chen, B. J., & Faigle, R. (2022). Temporal Trends in Racial and Ethnic Disparities in Palliative Care Use After Intracerebral Hemorrhage in the United States. *Stroke*, 53(3).
5. **Suolang, D.**, Chen, B. J., Wang, N. Y., Gottesman, R. F., & Faigle, R. (2021a). Temporal Trends in Stroke Thrombolysis in the U.S. by Race and Ethnicity, 2009–2018. ***JAMA***, 326(17), 1741–1743.
6. **Suolang, D.**, Chen, B. J., Wang, N. Y., Gottesman, R. F., & Faigle, R. (2021b). Geographic and Regional Variability in Racial and Ethnic Disparities in Stroke Thrombolysis in the United States. *Stroke*, 52(12).
7. He, G., Chen, Y., Chen, B., Wang, H., Shen, L., Liu, L., **Suolang, D.**, ..., & Min, Z. (2018). Using the Baidu search index to predict the incidence of HIV/AIDS in China. *Scientific Reports*, 8(1).

Conference Presentations

1. **Suolang, D.**, & West, B. T., How Generalizable Is Imputation-Based Integration of Wearable and Survey Data? Evidence From a Simulation Study (November 2025). *MAPOR*, Chicago, IL.
2. **Suolang, D.**, & West, B. T., Assessing the Generalizability of Imputation-Based Integration of Wearable Sensor Data and Survey Self-Reports: A Simulation Study (July 2025). *ESRA*, Utrecht, the Netherlands.
3. **Suolang, D.**, & West, B. T., Leveraging Wearable Sensor Data to Enhance Survey Self-Reports: A Mass Imputation Approach (May 2025). *AAPOR*, St. Louis, MO.
4. **Suolang, D.**, Bailey, P., Rutkowski, L., Handling Missing Contextual Data in Large-Scale Assessments: A Multiple Imputation Strategy (April 2025). *NCME*, Denver, CO.
5. **Suolang, D.**, Yang, J., Miller, L., Rodhouse, J. R., Page, E. T., Si, Y., & West, B. T., Weighting Adjustment and Multiple Imputation for Addressing Nonresponse in a Multi-Day Diary Survey (May 2024). *AAPOR*, Atlanta, GA.
6. Wagner, J., West, B. T., Kim, B., **Suolang, D.**, Engstrom, C., & Sinibaldi, J., How Different Modeling Choices Impact the Performance of Stopping Rules in a Longitudinal Study (May 2023). *AAPOR*, Philadelphia, PA.

7. **Suolang, D.**, Effects of Front-Loaded and Escalating Incentives on Response Rates and Response Quality in Election Surveys (May 2021). *AAPOR*, Los Angeles, CA (remote).
8. **Suolang, D.**, West, B. T., Wagner, J., Almirall, D., Toward the Optimization of Responsive and Adaptive Survey Design (February 2020). *MSSISS*, Ann Arbor, MI.
9. **Suolang, D.**, Ketenci, K., Predicting Presidential Election Trends: A Public Opinion Survey Using Web-Sourced Data (November 2020). *BigSurv20*, Utrecht, the Netherlands (remote).
10. Hu, M., He, W., **Suolang, D.**, Zhang, S., West, B. T., Kirlin, J. A., & Zhang, X., Response Patterns in a Multi-Day Diary Survey: Implications for Adaptive Survey Design (May 2019). *AAPOR*, Toronto, Canada.

Projects

2025–Present **Leveraging Contextual Data to Improve the Granularity of Sampling Frames and Estimation**
Developed sampling frames that integrate contextual and commercial data from public repositories, including features extracted from aerial imagery using Python deep learning tools. Evaluated how these enriched frames improved coverage and the precision of small area estimates.

2022–Present **Combining Multiple Data Sources for Better Estimation: Leveraging Wearable Sensor Data to Strengthen Self-Reports in Health Surveys (Dissertation project)**
Developed a mass-imputation method to integrate wearable sensor and survey self-report data, improving measurement accuracy and strengthening inference for population health research. Addressed key methodological challenges including non-probability samples, selection bias, and complex survey design.

2023–2025 **Survey Modernization and Statistical Methods for FoodAPS (USDA-funded)**
Applied weighting and imputation methods to reduce nonresponse and measurement error in a national food acquisition survey, providing policymakers with more reliable evidence for nutrition-related funding decisions and informing improvements in future survey design.

2024 **Advancing Missing Data Methods for NCES Large-Scale Assessments (NCES-funded)**
Designed tailored imputation strategies to address missing survey and latent outcome data in large-scale assessments, enhancing data quality and supporting evidence-based evaluation of educational and health programs.

2021–2022 **Modernization and Adaptive Design in Longitudinal Surveys (NCSES-funded)**
Simulated adaptive interventions to optimize cost-quality tradeoffs in longitudinal surveys, producing recommendations to reduce attrition, minimize bias, and enhance the reliability of program evaluation and workforce data.

2020–2021 **Racial Inequities in Healthcare Attitudes and Utilization in the U.S. (NIH-funded)**
Analyzed surveys, administrative records, medical claims, and qualitative data to identify disparities in healthcare utilization, patient experiences, and outcomes, generating evidence to guide improvements in healthcare delivery and inform policy decisions.

Consulting

2025 **Kelsey Museum of Archaeology**

Designed and executed a visitor experience survey to assess perceptions and satisfaction. Provided insights that informed leadership decisions on exhibit planning and enhanced strategies for visitor learning and engagement.

2020 **Starboard Corp. (Supply Chain SaaS in Michigan)**
Conducted employee and client survey research to evaluate workplace experience and software usability, identifying behavioral patterns and pain points that guided leadership decisions on product development and organizational adoption.

2020 **Python–NumPy Steering Council**
Designed and launched the first survey of NumPy contributors and users, generating insights on behavior, engagement, and experience that guided decisions on support resources in the open-source ecosystem.

Awards & Honors

2025 Winner, MAPOR Allan L. McCutcheon Award for Best Methodology Paper
2025 Winner, AAPOR Seymour Sudman Student Paper Award
2025 Best Presentation Award, Michigan Student Symposium for Interdisciplinary Statistical Sciences
2025 Rackham Travel Award, ESRA Annual Conference
2024 Daniel Katz Dissertation Fellowship
2024 **Note: This $25,000 research grant was part of the ISR Next Generation Awards.**
2024 Rackham Travel Award, JSM Annual Conference
2024 MPSDS Travel Award, AAPOR Annual Conference
2024 Rackham Travel Award, AAPOR Annual Conference
2023 MAPOR Student Support Award
2023 Rackham Travel Award, ESRA Annual Conference
2020 Best Methods Award, Poster Competition, BigSurv20 Conference
2020 Best Poster Award, Michigan Student Symposium for Interdisciplinary Statistical Sciences
2019 MPSM Travel Award, APA Annual Conference
2016 Honorable Mention, Nanjing University Student of the Year

Teaching Experience

Graduate Student Instructor

2022 SURVMETH 621 Data Collection I
2022 SURVMETH 632 Cognition, Communication, and Survey Measurement
2023 SURVMETH 622 Data Collection II
2023 SURVMETH 625 Applied Sampling

Short Courses and Tutorials

2022 Guest Lecturer, Tutorial on Qualtrics Programming (MPSDS)

Professional Memberships

2025-Present	National Council on Measurement in Education
2023-Present	American Statistical Association
2022-Present	European Survey Research Association
2020-Present	Midwest Association for Public Opinion Research
2019-Present	American Association for Public Opinion Research

Committees

2025	Project Lead, STATCOM (Statistics in the Community) at the University of Michigan
2022-2023	Orgnizing Committee, Responsible for the 17th Annual Michigan Student Symposium in Interdisciplinary Statistical Sciences (MSSISS, March 2023)

Service

2026	Peer reviewer for *Scientific Reports*
2025	Reviewer for abstract submissions, AAPOR Annual Conference
2025	Peer reviewer for *BMC Nephrology*
2025	Peer reviewer for *Discover Applied Sciences*
2024	Moderator, AAPOR Annual Conference, Innovations in Statistical Methods for Quality Improvement
2024	Reviewer for abstract submissions, AAPOR Annual Conference
2023	Moderator, AAPOR Annual Conference, New Applications of Multiple Imputation and Model-Based Methods to Survey Research
2022	Moderator, AAPOR Annual Conference, Using Social Media and Big Data to Predict COVID Beliefs

---

Last updated: December 1, 2025