

Shiyu Zhang

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CURRENT EMPLOYMENT

Research Investigator

d3center, Institute for Social Research, University of Michigan, Ann Arbor

Affiliations: Rogel Cancer Center (core member); Michigan Institute for Data Science

Ann Arbor, MI

2023-present

EDUCATION

University of Michigan, Ann Arbor

Ph.D. in Survey and Data Science, data science track

Ann Arbor, MI

2018 - 2023

University of Chicago

M.A. in Social Science (MAPSS), sociology focus

Chicago, IL

2017 - 2018

Tilburg University

M.Sc. in Data Science, with Cum Laude

Tilburg, the Netherlands

2016 - 2017

Utrecht University

*M.Sc. in Migration, Ethnic Relations, and Multiculturalism
(Research master), with Cum Laude*

Utrecht, the Netherlands

2014 - 2016

The National University of Singapore

Exchange program

Singapore

Fall semester, 2012

The Chinese University of Hong Kong

B.Soc.Sc. in Psychology, with First-Class Honors

Hong Kong

2010 - 2014

PEER-REVIEWED PUBLICATIONS

1. **Zhang, S.**, Dziak, J. J., Tomlinson, D. C., & Nahum-Shani, I. (Forthcoming). Experimental designs with repeated randomizations for optimizing adaptive interventions: Guidelines and practical considerations. *Annals of Behavioral Medicine*.
2. **Zhang, S.**, Dziak, J. J., Benson, L., Yap, J. R., Jones, D. R., Lam, C. Y., Potter, L. N., Wetter, D. W., & Nahum-Shani, I. (2025). Missing data in microrandomized trials: Challenges and opportunities. *Behavior Research Methods*, 57(12), 344.
3. **Zhang, S.**, Si, Y., & Dziak, J. J. (2025). How to manage missing covariates in randomized controlled trials: A comparison of strategies. *BMC Medical Research Methodology*, 25(1), 264.
4. Khanyile, S., **Zhang, S.**, West, B. T., & Axinn, W. G. (Forthcoming). Mode effects on regression coefficients capturing subgroup differences: Comparing regression models across the web-based American Family Health Study and the face-to-face National Survey of Family Growth. *Journal of Survey Statistics and Methodology*.
5. West, B. T., Couper, M. P., Axinn, W. G., Wagner, J., Gatward, R., Saw, H. W., & **Zhang, S.** (2024). A new approach to creating population representative data for demographic research. *Demography*.
6. **Zhang, S.**, West, B. T., Wagner, J., & Gatward, R. (2023). Incorporating adaptive survey design in a two-stage national web or mail mixed-mode survey: An experiment in the American Family Health Study. *Journal of Survey Statistics and Methodology*. DOI: <https://doi.org/10.1093/jssam/smad035>

7. **Zhang, S.**, West, B. T., Wagner, J., Couper, M. P., Gatward, R., & Axinn, W. G. (2023). Visible cash, a second incentive, and Priority Mail? An experimental evaluation of mailing strategies for a screening questionnaire in a national push-to-web/mail survey. *Journal of Survey Statistics and Methodology*. DOI: <https://doi.org/10.1093/jssam/smac041>
8. West, B.T., **Zhang, S.**, Wagner, J., Gatward, R., Saw, H., Axinn, W. G. (2023). Methods for improving participation rates in national self-administered web/mail surveys: Evidence from the United States. *PLOS ONE*. DOI: <https://doi.org/10.1371/journal.pone.0289695>
9. **Zhang, S.**, & Wagner, J. (2022). The additional effects of adaptive survey design beyond post-survey adjustment: An experimental evaluation. *Sociological Methods and Research*. DOI: <https://doi.org/10.1177/00491241221099550>
10. **Zhang, S.** (2022). Benefits of adaptive design under suboptimal scenarios: A simulation study. *Journal of Survey Statistics and Methodology*, 10(4), 1048-1078. DOI: <https://doi.org/10.1093/jssam/smab051>
11. **Zhang, S.**, Wagner, J., Gerber, E. R., & Morenoff, J.D. (2022). What parcel tax records tell us about homeownership measurement in surveys. *Survey Research Methods*, 16(2), 133-145. DOI: <https://doi.org/10.18148/srm/2022.v16i2.7904>
12. Wagner, J., West, B., Couper, M. P., **Zhang, S.**, Gatward, R., Nishimura, R., Saw, H. (2022). An experimental evaluation of two approaches for improving response to household screening efforts in national mail/web surveys. *Journal of Survey Statistics and Methodology*. DOI: <https://doi.org/10.1093/jssam/smac024>
13. Smith, V. A., West, B. T., & **Zhang, S.** (2021). Fitting marginalized two-part models to semicontinuous survey data arising from complex samples. *Health Services Research*, 56(3), 558-563. DOI: <https://doi.org/10.1111/1475-6773.13648>
14. Hu, M., Kirlin, J. A., West, B. T., He, W., Ong, A. R., **Zhang, S.**, & Zhang, X. (2019). Estimation of underreporting in Diary Surveys: An application using the national household Food Acquisition and Purchase Survey. *Journal of Survey Statistics and Methodology*, 8(5), 877-902. DOI: <https://doi.org/10.1093/jssam/smz024>
15. **Zhang, S.**, Kirlin, J. A., Page, E. T., Zhang, X., & West, B. T. (2020). Do supplemental list frames for subpopulations increase subpopulation sampling efficiency? Evidence from the National Household Food Acquisition and Purchase Survey. *Survey Methods: Insights from the Field*. Retrieved from <https://surveyinsights.org/?p=13478>
16. **Zhang, S.**, Bakkes, S., Roijers, D., & Spronck, P., Avatars of a feather flock together: Gender homophily in online video games revealed via Exponential Random Graph modeling. (2019). *IEEE Transactions on Games*, 12(1), 86-100.
17. **Zhang, S.**, Verkuyten, M., & Weesie, J. (2018). Dual identity and psychological adjustment: A study among immigrant-origin members. *Journal of Research in Personality*, 74, 66-77.
18. **Zhang, S.**, Baams, L., van de Bongardt, D., & Dubas, J. S. (2017). Intra- and inter-individual differences in adolescent depressive mood: The role of relationships with parents and friends. *Journal of Abnormal Child Psychology*, 46, 811-824.

BOOK CHAPTERS

1. Qu, Y., **Zhang, S.**, Kalindi, S. C., Yang, B., & Wang, Q. (2020). Gender and adolescent development across cultures. In Fanny M. Cheung and Diane F. Halpern (Eds.), *The Cambridge International Handbook on Psychology of Women* (pp. 96-109). Cambridge University Press.

PAPERS UNDER REVIEW

1. **Zhang, S.** & Qian, T. Accounting for Missing Data in Microrandomized Trial Sample Size Calculation.

PAPERS IN PREPARATION

1. **Zhang, S.**, & Rabbi, M. Combining ecological momentary assessment and evening recall surveys.
2. Moment-level nonadherence in ecological momentary assessment: A systematic review

GRANTS

Active 2025-2026	Data Science for Dynamic Intervention Decision Making Center P50 supported by NIDA, Pilot Grant Role: Principal Investigator (Co-I: Coughlin, L., Conrad, F., Potter, L., Rabbi, M.) Award Amount: \$15,000 Towards Reducing Missing Information in Ecological Momentary Assessment of the Use of Non-Combustible Nicotine Products
Under Review	NIH/NCI R01 Role: Principal Investigator (Co-I: West, B. T., Henry, N. L., Zick, S. M., Newman, M. W., Dempsey, W) Engaging Breast Cancer Survivors in Mobile-Survey Research to Better Understand Their Health

PRESENTATIONS, TALKS, and LECTURES

Adaptive Interventions. (Population Dynamics and Health Program Workshop presented together with Lizbeth Benson and Walter Dempsey, University of Michigan. Dec 12 2025; 4 hours.)

Zhang, S., Dziak, J. J., Benson, L., Yap, J.R.T., Jones, D.R., Lam, C.Y., Potter, L.N., Wetter, D.W., & Nahum-Shani, I. Missing data in micro-randomized trials: Challenges and opportunities. *Society of Behavioral Medicine*, San Francisco, March 2025 poster presentation.

Missing Data: Challenges and common solutions," Guest Lecture (Nov 2024). Experience Sampling Methods in Health Behaviors and Outcomes (EXSC 755). Department of Exercise Science, University of South Carolina.

Zhang, S., Dziak, J. J., Benson, L., Yap, J.R.T., Jones, D.R., Lam, C.Y., Potter, L.N., Wetter, D.W., & Nahum-Shani, I. Missing data in micro-randomized trials: Challenges and opportunities. *Society for Ambulatory Assessment*, Ann Arbor, June 2024 paper presentation.

Zhang, S., West, B. T., Wagner, J., Couper, M. P., Gatward, R., & Axinn, W. G. Visible cash, a second incentive, and Priority Mail? An experiment in a national push-to-web/mail survey. *Midwest Association for Public Opinion Research*, Chicago, Nov 2022.

Zhang, S., Finlay, J., Li, M., Melendez, R., Judd, S., Esposito, M., & Clarke, P. Should surveys produce more contextual features? Comparing contextual features by alternative definitions of neighborhoods. *Invited talk presented for Michigan Program in Survey and Data Science / Joint Program in Survey Methodology Brownbag Seminar Series*, Oct 5 2022. https://psm.mivideo.it.umich.edu/media/t/1_04s696ep/247242332

Zhang, S., & Wagner, J. The additional effects of adaptive survey design beyond post-survey adjustment: An experimental evaluation. *Invited talk presented for Michigan Program in Survey and Data Science / Joint Program in Survey Methodology Brownbag Seminar Series*, Feb 23 2022. https://psm.mivideo.it.umich.edu/media/t/1_udc9i71x/88145421

Introduction to Survey Methodology (Webinar presented together with Brady West virtually to University of Michigan-Flint researchers as part of the RSD Research Education Program, 11/05/2021; 4 hours)

Guest Lecturer (one class), Fundamentals of Survey Methodology (10/20/2021; 3 hours)

Zhang, S., Wagner, J., Gerber, E. R., & Morenoff, J.D. What parcel tax records tell us about homeownership measurement in surveys. *Midwest Association for Public Opinion Research*, Chicago, Nov 2021.

Zhang, S., & Wang, Q. Perceived discrimination among Chinese rural-to-urban migrant early adolescents. *European Congress of Psychology*, Milan, Italy, Jul 2015.

AWARDS

2022	Winner, AAPOR Seymour Sudman Student Paper Competition
2017- 2018	Social science scholarship, the University of Chicago (two-third scholarship waiver)
2016- 2017	Academic Excellence Scholarship, Tilburg University (two-third tuition fee waiver)
2013-2014	Dean's list, the Chinese University of Hong Kong

STUDENT MENTORSHIP

present	Tyler Favier Master's student research assistant
present	Bruno Garcia Undergraduate student research assistant
2024	Gal Cohen Groumi Undergraduate student research assistant Position after graduation: IBI Investment House

PRIOR ACADEMIC EXPERIENCES

Graduate student research assistant, *American Family Health Study*, Jun 2021- 2023 (PI: Brady West)

Graduate student research assistant, *University of Michigan Office of Diversity, Equity and Inclusion*, Sep

2019- May 2021 (Supervisor: Teri Rosales)

Master thesis at the University of Chicago (grade: A, primary supervisor: Marco Garrido)

Three evaluation systems for three races: A qualitative study contrasting “Chinese Chinese” and Chinese immigrant parents’ perception of intermarriages.

PROFESSIONAL SERVICE

Reviewer, Propelling Original Data Science (PODS) Grants, Michigan Institute for Data & AI in Society (MIDAS), 2026

Member, Organizing Committee, Conference on Intervention Optimization 2026, 2026

Member, Michigan Program in Survey Methodology Master’s Degree Admissions Committee, 2025

Co-Organizer, Michigan Student Symposium for Interdisciplinary Statistical Sciences (MSSISS) 2020

Ad hoc reviewer for *Journal of Survey Statistics and Methodology*, *Public Opinion Quarterly*, *BMC Medical Research Methodology*, *Sociological Methods and Research*, *Trials*, *Advances in Methods and Practices in Psychological Science*, *Research Methods in Medicine & Health Sciences*, *Methodological Innovations*