

Mengyao Hu

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Career Brief

Dr. Hu is an Associate Research Scientist in the Demography of Aging, Disability, and Care Program within the Survey Research Center at the University of Michigan. She received her Ph.D. in Survey and Data Science from the University of Michigan in 2018. Her research focuses on the design and evaluation of cross-cultural surveys, survey nonresponse, longitudinal survey data analysis, methodological research in surveys of older adult populations, and applications of machine learning and artificial intelligence in survey research. Dr. Hu is currently collaborating with the National Health and Aging Trends Study and the National Study of Caregiving as a Co-Investigator to support user outreach and evaluate new data collection designs.

Education & Training:

2018 – 2019	Postdoctoral Research Fellow, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI.
2018	Ph.D., Survey and Data Science, Institute for Social Research, University of Michigan
2013	M.S., Survey and Data Science, Institute for Social Research, University of Michigan
2013	M.S., Nutritional Sciences, School of Public Health, University of Michigan
2010	B.S., Biological Sciences, Fudan University, Shanghai, China

Research & Professional Experience:

Oct. 2026 – Present	Associate Research Scientist, Demography of Aging, Disability and Care Program, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI.
Jan. 2024 – Sept. 2026	Associate Professor, Department of Management, Policy, and Community Health (MPACH), University of Texas Health Science Center at Houston (UTHealth Houston) School of Public Health, Houston, TX.
Jan. 2024 – Sept. 2026	Adjunct Assistant Research Scientist, Demography of Aging, Disability and Care Program, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI.
Sept. 2019 – Dec. 2023	Assistant Research Scientist, Demography of Aging, Disability and Care Program, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI.

2019 – Present	Faculty affiliate, Michigan Center on the Demography of Aging (MiCDA), University of Michigan, Ann Arbor, MI.
2019 – Present	Faculty affiliate, Population Dynamics and Health Program (PDHP). University of Michigan, Ann Arbor, MI.
2012 – 2016	Research Assistant, International Survey Research Unit, Institute for Social Research, University of Michigan, Ann Arbor, MI.
Summer 2012	Survey Methodology Research Intern, Nielsen, Measurement Science - Research Methods Center of Innovation (RM-COI), Tampa, FL.
Summer 2011	Customer Satisfaction Survey Research Intern, FG Consulting Co., LTD, Guangzhou, P.R.China.

Professional Activities:

Society Memberships:

2024 – Present	AcademyHealth
2022 – Present	Population Association of America
2019 – Present	European Survey Research Association
2018 – Present	Gerontological Society of America
2016 – 2017	American Statistical Association
2013 – Present	American Association for Public Opinion Research
2012 – Present	Midwest Association for Public Opinion Research

Participation in Committees and Boards:

2025 – Present	Member, Likert Symposium Committee, Michigan Program in Survey and Data Science, University of Michigan
2024 – Present	Co-Chair, Faculty Search Committee, School of Public Health, University of Texas Health Science Center at Houston
2024 – Present	Member, Master and PhD Program Admissions Committee, School of Public Health, University of Texas Health Science Center at Houston
2024 – Present	Member, Master and PhD Program Scholarship Committee, School of Public Health, University of Texas Health Science Center at Houston
2022 – Present	Member, Network on Longitudinal Studies of Aging in the U.S. organized by Michigan Center on the Demography of Aging (MiCDA)
2022 – 2023	Member, Master Program Admission Review Committee, the Michigan Program in Survey and Data Science at the University of Michigan and the Joint Program in Survey Methodology at the University of Maryland
2023 – Present	Invited Board Member, European Survey Research Association Board

Editorial Activities:

Guest Editor: Frontiers in Public Health

Reviewer: Aging Clinical and Experimental Research
 BMJ Open
 Communication Studies
 Dementia and Geriatric Cognitive Disorders
 Demography Review
 Field Methods
 Health Science Reports
 International Journal of Social Research Methodology
 Journal of Aging and Health
 Journal of Gerontology: Medical Sciences
 Journal of Gerontology: Social Sciences
 Journal of Geriatric Psychiatry and Neurology
 Journal of Survey Statistics and Methodology
 Journal of the American Geriatrics Society
 Mathematical Population Studies
 Scientific Reports
 Population Research and Policy Review
 Public Opinion Quarterly
 Sociological Methods & Research
 The Journal of Pain
 The Gerontologist

Proposal / Paper Awards Reviewer:

2025	ESRA Early Career Award, European Survey Research Association
2025	ESRA Travel and Stay Grant, European Survey Research Association
2025	Sudman Student Paper Award of the 2025 American Association for Public Opinion Research (AAPOR) conference
2024	Sudman Student Paper Award of the 2024 American Association for Public Opinion Research (AAPOR) conference
2023	Network for Innovative Methods in Longitudinal Aging Studies (NIMLAS) pilot project proposals award
2023	Life Course Development Awards at the Institute for Social Research, University of Michigan
2022	Network for Innovative Methods in Longitudinal Aging Studies (NIMLAS) pilot project proposals award
2022	Sudman Student Paper Award of the 2022 American Association for Public Opinion Research (AAPOR) conference

Honors & Awards:

2020	RAND Summer Institute Fellowship by MiCDA (\$2,000)
2019	Health and Retirement Study Life History Survey Research Grant supported by R01 AG051142, University of Michigan. Total Award: \$2,000.
2019	ESRA 2019 Travel and Stay Grant (€500), European Survey Research Association.
2018	Seymour Sudman Student Paper Award, American Association for Public Opinion Research
2018	Travel award from the American Association for Public Opinion Research for the 2018 <i>Annual Conference of the American Association for Public Opinion Research</i>
2018	Rackham Graduate Student Research Grant, University of Michigan. 2015 – 2018. Total Award: \$3,000.
2017	Travel grant from the Rackham Graduate School for the <i>International Conference on Survey Methodology and Research</i> , University of Michigan
2016	Riecker Graduate Student Research Grant Award, Center for the Education of Woman, University of Michigan. 2016 – 2018. Total Award: \$1,400.
2016	Program in Survey Methodology Student Travel Grant for the <i>71st Annual Conference of the American Association for Public Opinion Research</i> , University of Michigan
2016	Rackham Graduate Student Travel Grant for the <i>71st Annual Conference of the American Association for Public Opinion Research</i> , University of Michigan
2015	Rackham Graduate Student Research Grant, University of Michigan. 2015 – 2018. Total Award: \$1,500.
2013	Program in Survey Methodology Student Travel Grant for the 38th Annual Conference of Midwest Association for Public Opinion Research, University of Michigan.

Research Grant Participation:

Current:

- Title: The National Health and Aging Trends Study
 Agency: NIA (2U01AG032947-16, MPI: Jennifer Schrack and Vicki Freedman).
 Period: 07/01/24 - 06/30/29.
 Amount: \$6,799,605
 Major Goals: This proposal will extend and enhance the National Health and Aging Trends Study (NHATS) and the National Study of Caregiving (NSOC) to promote the study of late-life disability, Alzheimer's Disease and Related Dementias (ADRD) and care-related issues.
 Role: Site PI.
- Title: Trends and Dynamics in Caregiving for Alzheimer's Disease and Related Dementias: Extending the National Study of Caregiving (NSOC-IV)
 Agency: NIA (R01-AG062477; MPI: Vicki Freedman and Jennifer Wolff).
 Period: 06/01/2025 – 05/31/2026.
 Amount: \$28,564
 Major Goals: The goal of this project is to enhance understanding of informal caregiving to older adults with Alzheimer's disease and related dementias (ADRD) through collecting and disseminating four waves of the National Study of Caregiving and to identify demographic forces driving recent and longer-term trends in informal ADRD care experiences and outcomes.
 Role: Site PI.

3. Title: Vision Impairment in the National Health and Aging Trends Study: Epidemiology, Social Determinants of Health, and Adverse Late Life Outcomes
Agency: NIA (R01EY3447901A1, PI: Joshua Ehrlich).
Period: 01/01/24 - 06/30/28.
Amount: \$70,167.
Major Goals: The proposed study will estimate the national prevalence of vision impairment in older U.S. adults and evaluate the impact of social determinants factors on vision impairment and how vision impairment influence late-life health outcome using the NIH-funded National Health and Aging Trends Study (NHATS).
Role: Site PI.
4. Title: Improving Inclusivity of Alzheimer's Disease and Related Dementias Research for Asian Americans and Latinx through Nationally Representative Hybrid Sampling
Agency: NIA (1R01AG08208001A1, PI: Sunghee Lee).
Period: 04/01/24 - 12/31/28.
Amount: \$126,360.
Major Goals: The proposed study will estimate the national prevalence of vision impairment in older U.S. adults and evaluate the impact of social determinants factors on vision impairment and how vision impairment influence late-life health outcome using the NIH-funded National Health and Aging Trends Study (NHATS).
Role: Site PI.

Completed:

5. Title: Exploring the Use of Deep Learning Neural Networks to Improve Dementia Detection: Automating Coding of the Clock-Drawing Test
Agency: NIA (R21AG073971, PI: Mengyao Hu).
Period: 09/15/21 - 08/31/24.
Amount: \$406,553.
Major Goals: The proposed study will use advanced DLNN models to develop and evaluate an intelligent clock-drawing test (CDT) Scoring system - CloSco - that will automatically code CDT images and improve dementia detection.
Role: Principal Investigator.
6. Title: Dementia Diagnosis Classification using Deep Learning Neural networks based on Clock Drawing Test (CDT) and Medicare Claims
Agency: NIA P30-AG012846 (PI: Freedman). Michigan Center on the Demography of Aging Pilot Project
Period: 7/01/21 - 06/30/24.
Amount: \$35,000.
Role: Principal Investigator of pilot project.
7. Title: Trends and Dynamics in Caregiving for Alzheimer's Disease and Related Dementias: Extending the National Study of Caregiving (NSOC-IV)
Agency: NIA (R01-AG062477; MPI: Freedman and Wolff).
Period: 6/15/19 - 5/31/24.
Amount: \$1,904,183.
Major Goals: The goal of this project is to enhance understanding of informal caregiving to older adults with Alzheimer's disease and related dementias (ADRD) through collecting and disseminating four waves of the National Study of Caregiving and to identify demographic forces driving recent and longer-term trends in informal ADRD care experiences and outcomes.
Role: Co-Investigator.

8. Title: National Health and Aging Trends Study
Agency: NIA (U01AG032947, MPI: Schrack and Freedman)
Period: 04/01/2019 - 03/31/2024
Amount: \$50,654,724; Subcontract Award to Michigan: \$1,397,147
Major Goals: To provide a national platform for studying late life disability trends and trajectories.
Role: Co-Investigator.
9. Title: Effects of the COVID-19 Pandemic on Daily Lives of Older Persons with and without ADRD: National Health and Aging Trends Study Supplement
Agency: NIA (U01AG03294712S1; MPI: Schrack and Freedman).
Period: 06/01/20 - 03/31/22.
Amount: \$88,398.
Major Goals: This supplement funds a mail out/mail back supplement to the National Health and Aging Trend Study (NHATS) to study the effect of COVID-19 on the daily lives of older adults with and without Alzheimer's Disease and Related Dementia (ADRD).
Role: Co-Investigator.
10. Title: Caregiving for Alzheimer's Disease and Related Dementias: Enhancing the National Study of Caregiving (NSOC III)
Agency: NIA (R01AG054004; MPI: Freedman and Wolff).
Period: 09/01/19 - 06/30/22.
Amount: \$666,073.
Major Goals: The goal of this project is to build upon the National Health and Aging Trends Study and the National Study of Caregiving to provide new national data that will enhance understanding of caregiving for older adults with Alzheimer's disease and related dementias (ADRD).
Role: Co-Investigator.
11. Title: An analysis of memory effects in the Health and Retirement Study Life History Mail Survey
Agency: The A. Regula Herzog Young Investigators Fund (PI: Hu, M).
Period: 09/01/19 - 08/31/21.
Amount: \$8,000.
Major Goals: To examine how episodic and semantic AM and respondent cognitive status can influence respondents' likelihood to produce item missing data and inform future life history survey design and analysis in an adaptive survey design framework.
Role: Principal Investigator.
12. Title: Improving the Validity of Anchoring Vignette Methodology with Visual Vignettes
Agency: Rensis Likert Fund in Research in Survey Methodology (PI: Hu, M).
Period: 09/01/16 - 06/30/18.
Amount: \$10,000.
Major Goals: The goal of this project is to design visual anchoring vignettes as an alternative to verbal vignettes and evaluate its performance in how well they correct for reporting heterogeneity in cross-cultural studies.
Role: Principal Investigator.

Publications:

Peer Reviewed Articles & Book Chapters:

*Denotes a mentoring role on a manuscript for student or trainee co-author

1. Testa, A., Mijares, L., **Hu, M.**, Andoh, J. E., Wade, M. W., & Jackson, D. B. (accepted August 2026). History of Incarceration and Vision Trajectories in Older Adults. *American Journal of Criminal Justice*.
2. Xu, S., Nguyen, M., Zhou, Y., **Hu, M.**, Ehrlich, J., & De Lott, L. (accepted April 2026). A Clinically Relevant Threshold of Impaired Contrast Sensitivity Among Older U.S. Adults. *JAMA Ophthalmology*.
3. **Hu, M.**, Qin, T., Gonzalez, R., Freedman, V., Zahodne, L., Melipillan, E., & Murphey, Y. (2026) A Novel Vision Transformer Model Produces Clock Drawing Test Scores as Accurate as Expert Human Coders. *Scientific Reports*.
4. **Hu, M.**, Murphey, Y. L., Qin, T., Melipillán, E. R., Zahodne, L. B., Gonzalez, R., Freedman, V. A. (2025) Enhancing Dementia Classification for Diverse Demographic Groups: Using Vision Transformer-Based Continuous Scoring of Clock Drawing Tests. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*. Vol 80, No. 7. gbaf065
5. **Hu, M.**, Freedman V. A., Kamens, J. & McCloskey, S. (2025) Effects of Mode and Transitioning to a Mixed-Mode (Web/Phone) Design on Categorical Survey Estimates: Do Question Characteristics Matter? In *Survey Research Methods*. Vol. 19, No. 2, pp. 207-221.
6. Nagarajan, N., Leziak, K., Zhou, Y., Mumby, R., **Hu, M.**, Ferrante, L. E., ... & Ehrlich, J. R. (2025). Association Between Visual Impairment and Recurrent Hospitalizations in Older US Adults. *Journal of the American Geriatrics Society*, 73(3), 782-790.
7. *Danda, S. S. R., Uysal, A. K., Qin, T., Kumar, A., Sannareddy, V., **Hu, M.**, ... & Murphey, Y. L. (2025). Deep Neural Network Ensembles for the Detection of Alzheimer's Disease Using Imbalanced Clock Drawing Test Images. In *2025 IEEE 15th Annual Computing and Communication Workshop and Conference (CCWC)* (pp. 00544-00551). IEEE.
Received Best Paper Award in the Category of Computational Intelligence.
8. Freedman, V. A., & **Hu, M.** (2024). Addressing Practice Effects in Population-Based Studies of Trends in Late-Life Dementia and Cognitive Impairment. *The Journals of Gerontology, Series A: Biological Sciences and Medical Sciences*, 79 (Supplement_1), S7-S10.
9. Cai, Y., Guo, P., Tu, J., **Hu, M.**, Liu, L., ..., Xu, R. (2024) Contextualizing the Revised Patient Perception of Patient-Centeredness (PPPC-R) Scale in Primary Healthcare settings: a Validity and Reliability Evaluation Study. *BMC Primary Care*, 25(1), 11.
10. *Wang, S., Waqar, D.M., **Hu, M.**, Gonzalez, R., Murphey, Y.L. (2023) Detection of Abnormality in Cognitive Test Scores using Metric Learning. In *the 4th International Conference on Pattern Recognition and Machine Learning (PRML)* (pp. 29-36). IEEE.
11. Killeen, O. J., De Lott, L. B., Zhou, Y., **Hu, M.**, Rein, D., Reed, N., ... & Ehrlich, J. R. (2023). Population Prevalence of Vision Impairment in US Adults 71 Years and Older: The National Health and Aging Trends Study. *JAMA ophthalmology*. 141(2), 197-204.

12. *Turner, S., Epps, F., Li, M., Leggett, A. & **Hu, M.** (2023). Validation of a Measure of Role Overload and Gains for End-of-Life Dementia Caregivers. *The Journals of Gerontology: Series B.*, 78(Supplement_1), S15-S26.
13. **Hu, M.**, Freedman, V. A., Patterson, S. E., & Lewis, N. (2023). Shared Care Networks Assisting Older Adults: New Insights from the National Health and Aging Trends Study. *The Gerontologist.* 63(5), 840-850.
14. **Hu, M.**, Lee, S., Xu, H., Melipillán, R., Smith, J. & Kapteyn, A. (2022) Improving anchoring vignette methodology using visual vignettes. *methods, data, analyses.* 16(2), 273.
15. Ehrlich, J. R., **Hu, M.**, Zhou, Y., Kai, R., & De Lott, L. B. (2022). Visual Difficulty, Race and Ethnicity, and Activity Limitation Trajectories Among Older Adults in the United States: Findings from the National Health and Aging Trends Study. *The Journals of Gerontology: Series B.* S39-S50.
16. Freedman, V. A., **Hu, M.**, & Kasper, J. D. (2021). Changes in older adults' social contact during the COVID-19 pandemic. *The Journals of Gerontology: Series B.* 77(7), e160-e166.
17. De Lott, L., Kolli, A., Zhou, Y., **Hu, M.**, & Ehrlich, J. (2021) Development and Validation of a Novel Indicator of Visual Disability in the National Health and Aging Trends Study. *Innovation in Aging.* 5(2), igab018.
18. **Hu, M.**, Freedman, V.A., Ehrlich, J., Reed, N. S., Billington, C., & Kasper, J. (2021) Collecting Objective Measures of Visual and Auditory Function in a National in-Home Survey of Older Adults. *Journal of Survey Statistics and Methodology*, 9(2), 309-334.
19. Xu, D., Pan, J., Dai, X., **Hu, M.**, Cai, Y., He, H., ... & Yip, C. M. W. (2021). Comparing quality of primary healthcare between public and private providers in China: study protocol of a cross-sectional study using unannounced standardized patients in seven provinces of China. *BMJ open*, 11(1), e040792.
20. Smith, J., **Hu, M.** & Lee, H. (2021). Measuring life course events and experiences using the life history survey of the Health and Retirement Study. In K. Ferraro, D. Carr, V. Freedman, Idler E. & J. Wilmoth (Eds.), *Handbook of Social Sciences and Aging on retrospective life histories (9th edition)*. Academic Press.
21. **Hu, M.**, Melipillán, E. R., West, B. T., Kirlin, J. A., & Paniagua, I. (2020). Response patterns in a multi-day diary survey: implications for adaptive survey design. *Survey Research Methods.* 14(3), 289-300.
22. Melipillán, R., **Hu, M.** (2020). Measurement Invariance Across Groups. In P. Atkinson, S. Delamont, A. Cernat, J.W. Sakshaug, & R.A. Williams (Eds.), *SAGE Research Methods Foundations*. Retrieved Feb 2nd, 2021, from <https://methods.sagepub.com/foundations/measurement-invariance-across-groups>.
23. **Hu, M.**, Kirlin, J., West, B., He, W., Ong, A.R., Zhang, S., & Zhang, X. (2020) Estimation of Under-Reporting in Diary Surveys: An Application using the U.S. Food Acquisition and Purchase Survey. *Journal of Survey Statistics and Methodology*, 8(5), 877-902.
24. Lee, S., **Hu, M.**, Liu, M. & Kelley, J. (2020). Quantitative Evaluation of Response Scale Translation through a Randomized Experiment of Interview Language with Bilingual English-Spanish-Speaking Latino Respondents. In M. Sha (Eds.), *The Essential Role of Language in Survey Research*. RTI Press. 75.

25. Xu, D. R., **Hu, M.**, He, W., Liao, J., Cai, Y., Sylvia, S., ... & Zhang, N. (2019). Assessing the quality of primary healthcare in seven Chinese provinces with unannounced standardised patients: protocol of a cross-sectional survey. *BMJ Open*, 9(2), e023997.
26. Ong, A. R., **Hu, M.**, West, B. T., & Kirlin, J. A. (2018). Interviewer effects in food acquisition surveys. *Public Health Nutrition*, 21(10), 1781-1793.
27. **Hu, M.**, Lee, S., and Xu, H. (2018). Using Anchoring Vignette to Correct for Differential Response Scale Usage across Cultures. In T. P. Johnson, B-E. Pennell, I. A. L. Stoop, & B. Dorer (Eds.), *Advances in comparative survey methods: Multicultural, multinational and multiregional contexts (3MC)*. New York, NY: John Wiley & Sons, 181-201.
28. Yan T., **Hu, M.** (2018). An Empirical Study Examining Translation and Respondents' Use of Response Scales in Multinational, Multiregional and Multicultural (3MC) Surveys. In T. P. Johnson, B-E. Pennell, I. A. L. Stoop, & B. Dorer (Eds.), *Advances in comparative survey methods: Multicultural, multinational and multiregional contexts (3MC)*. New York, NY: John Wiley & Sons, 501-518.
29. **Hu, M.**, Garrett, G., Kirlin, J., & West, B. (2017). Nonresponse and Underreporting Errors Increase over the Data Collection Week Based on Paradata from the National Household Food Acquisition and Purchase Survey. *The Journal of Nutrition*. 147(5), 964-975.
30. Lee, S., Liu, M., & **Hu, M.** (2017). Relationship between Future Time Orientation and Item Nonresponse on Subjective Probability Questions: A Cross-Cultural Analysis. *Journal of Cross Cultural Psychology*, 48(5), 698-717.
31. **Hu, M.**, Sui, Y., Xie, F., & Shi, D. (2012). Telomere-Telomerase System and Cellular Redox Microenvironment. *Acta Biophysica Sinica*, 28(5), 411-421.
32. Liao, Z., **Hu, M.**, Wang, J., et al. (2011). Study on the antioxidant effect of crocetin in interference of fatty liver cells. *Acta Nutrimenta Sinica*. (2), 167-172.

Under Review:

33. Brault, M. W., Rein, D. B., **Hu, M.**, De Lott, L. B. & Ehrlich, J. R. (Submitted) Associations between residential care use and visual impairments among older adults. *Ophthalmology*.
34. Gao, J., Windett, J. H., Zhang, Y., Radford, B. J., Griffin, B. C., Li, Z., Balakrishnan, K., **Hu, M.**, Luan, H., & Tsai, J. (Submitted). Geographic clustering and facility technological capacity associated with artificial intelligence adoption in mammography facilities across Texas: A statewide geospatial analysis. *JMIR AI*. Manuscript submitted.
35. Xu, S., Reddy, K., **Hu, M.**, Thomas, J., Gross, A. L., & Ehrlich, J. R. (Submitted). Association between visual function and general cognitive performance in older U.S. Medicare beneficiaries: A longitudinal population analysis. *Alzheimer's & Dementia*. Manuscript submitted.

Reports & Technical Papers:

1. Freedman, V. A., **Hu, M.** & Wolff, J. (2026). National Study of Caregiving IV User Guide: Rounds 11-14 Final Release. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org
2. Freedman, V. A. & **Hu, M.** (2026). Recalculation of Weights for NHATS and NSOC Round 13. National Health

- and Aging Trends Study Memorandum #2. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org
3. **Hu, M.** & Freedman, V. A. (2026). National Health and Aging Trends Study Twenty Interval Regression Income Imputations: Rounds 1-14. NHATS Technical Paper #63. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
 4. **Hu, M.** & Freedman, V. A. (2026). National Study of Caregiving IV Twenty Interval Regression Income Imputations: Rounds 11-14. NHATS Technical Paper #65. Baltimore: Johns Hopkins Bloomberg School of Public Health.
 5. Freedman, V. A. & **Hu, M.** (2025). Accounting for Sample Design in NHATS Analyses: Frequently Asked Questions. NHATS Technical Paper #55. Johns Hopkins Bloomberg School of Public Health. Available at www.NHATS.org.
 6. Freedman, V. A. & **Hu, M.** (2025). Accounting for Sample Design in NSOC Analyses: Frequently Asked Questions. NHATS Technical Paper #56. Johns Hopkins Bloomberg School of Public Health. Available at www.NHATS.org.
 7. **Hu, M.**, Ehrlich, J. R., Reed, N. S. & Freedman, V. A. (2025). National Health and Aging Trends Study (NHATS) Vision and Hearing Activities User Guide: Rounds 11-14. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org
 8. Freedman, V. A., **Hu, M.** and Wolff, J. (2025). National Study of Caregiving IV User Guide: Rounds 11-13 Final Release. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.NHATS.org.
 9. **Hu, M.** & Freedman, V. A. (2025). National Study of Caregiving IV Twenty Interval Regression Income Imputations: Rounds 11-13. NHATS Technical Paper #51. Baltimore: Johns Hopkins Bloomberg School of Public Health.
 10. **Hu, M.**, Jiao R. & Freedman, V. A. (2025). National Study of Caregiving (NSOC) IV Weighting Guide: Rounds 11 - 13. NHATS Technical Paper #50. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
 11. Jiao, R., **Hu, M.**, Schneider, B., Schrack, J. A., & Freedman, V. A. (2024). National Health and Aging Trends Study: Development of Round 13 survey weights (NHATS Technical Paper No. 47). Johns Hopkins Bloomberg School of Public Health. <https://www.nhats.org>
 12. **Hu, M.**, Ehrlich, J. R., Reed, N. S. & Freedman, V. A. (2024). National Health and Aging Trends Study (NHATS) Vision and Hearing Activities User Guide: Rounds 11-13. Johns Hopkins Bloomberg School of Public Health. Available at www.NHATS.org.
 13. Plassman, B. L., Schrack, J. A., **Hu, M.** & Freedman, V. A. (2024). National Health and Aging Trends Study (NHATS) Cogstate User Guide: Rounds 11-13. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.NHATS.org.
 14. **Hu, M.** & Freedman, V. A. (2024). National Health and Aging Trends Study Twenty Interval Regression Income Imputations: Rounds 1-13. NHATS Technical Paper #49. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
 15. **Hu, M.** & Freedman, V. A. (2024). National Study of Caregiving I-III Twenty Interval Regression Income Imputations: Rounds 1, 5 and 7. NHATS Technical Paper #44. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.

16. **Hu, M.**, Skehan, M., Murphey, Y. L., Wang, S., Qin, T., & Freedman, V. A. (2023). *Introducing an automated coding procedure using deep learning neural networks to score the clock drawing test in the National Health and Aging Trends Study* (NHATS Technical Paper No. 35). Johns Hopkins Bloomberg School of Public Health. <https://www.nhats.org>
17. **Hu, M.** & Freedman, V. A. (2023). Effects of Switching to Mixed-Mode Design on Estimates from NSOC IV 2021 (Round 11). NHATS Technical Paper #40. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
18. **Hu, M.** & Freedman, V. A. (2022). Income Imputations in the National Study of Caregiving (NSOC) IV. NHATS Technical Paper #34. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
19. **Hu, M.**, Ehrlich, J.R., Reed, N.S. & Freedman, V.A. (2022) National Health and Aging Trends Study (NHATS) Vision and Hearing Activities User Guide. Johns Hopkins University School of Public Health. Available at www.NHATS.org.
20. Kasper, J. D., Freedman, V. A., Spillman, B. C., Skehan, M. E., and **Hu, M.** (updated in 2023) Addendum to Classification of Persons by Dementia Status in the National Health and Aging Trends Study for Follow-up Rounds. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.NHATS.org
21. Freedman, V. A., **Hu, M.** and Wolff, J. (2022) National Study of Caregiving IV User Guide: Final Release. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
22. Freedman, V., **Hu, M.**, Kasper, J. & DeMattais, J. (2022) Accounting for Sample Design in NHATS and NSOC Analyses: Frequently Asked Questions. Baltimore: Johns Hopkins University School of Public Health. NHATS Technical Paper #23 v2. Johns Hopkins University School of Public Health. Available at www.NHATS.org.
23. Plassman B.L., Schrack J.A., **Hu M.**, and Freedman V.A. (2022) National Health and Aging Trends Study (NHATS) Cogstate User Guide. Baltimore: Johns Hopkins University School of Public Health. Available at www.NHATS.org
24. **Hu, M.**, Freedman, V. A., Ferraro, D., Jiao, R., & DeMatteis, J. (2021). National Health and Aging Trends Study COVID-19 Sample Person (SP) and Family Members and Friends (FF) Supplemental Survey Weights. NHATS Technical Paper #29 Baltimore: Johns Hopkins University School of Public Health. Available at www.NHATS.org.
25. **Hu, M.**, Freedman, V., Kasper, J. (2020) Income Imputations in the National Study of Caregiving. NHATS Technical Paper #25. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
26. Freedman, V., and **Hu, M.** (2020). COVID-19 Supplement to the National Health and Aging Trends Study User Guide. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
27. Freedman, V., **Hu, M.**, Kasper, J. & DeMattais, J. (2020) Accounting for Sample Design in NHATS and NSOC Analyses: Frequently Asked Questions. Baltimore: Johns Hopkins University School of Public Health.
28. Freedman, V., Skehan, M., **Hu, M.**, Wolff, J., Kasper, J. (2019) National Study of Caregiving I-III User Guide. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.

Online Chapters:

1. Hibben K.C., de Jong, J., **Hu, M.**, Durow, J. & Guyer H. (2016). Study design and organizational structure. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
2. Orlowski, R. A., Antoun, C., Carlson, R. & **Hu, M.** (2016). Tenders, bids, and contracts. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
3. Hubbard, F., Lin, Y., Zahs, D. & **Hu, M.** (2016). Sample design. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
4. Harkness, J., Bilgen, I., Cazar, A. C., **Hu, M.**, Huang, L., Lee, S., Liu, M., Miller, D., Stange, M., Villar, A. & Yan, T. (2016). Questionnaire design. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
5. Mohler, P., Dorer, B., de Jong, J. & **Hu, M.** (2016). Translation: Overview. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
6. Mohler, P., Dorer, B., de Jong, J. & **Hu, M.** (2016). Adaptation. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
7. Caspar, R., Peytcheva, E., Yan, T., Lee, S., Liu, M. & **Hu, M.** (2016). Pretesting. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
8. Alcsér, K., Clemens, J., Holland, L., Guyer, H. & **Hu, M.** (2016). Interviewer recruitment, selection, and training. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
9. **Hu, M.** (2016). Paradata and other auxiliary data. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
10. **Hu, M.** (2016). Statistical analysis. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.
11. Hansen S. E., Benson, G., Bowers, A., Pennell, B.E., Lin, Y., Duffey, B., **Hu, M.** & Hibben K.C. (2016). Survey Quality. *Guidelines for Best Practice in Cross-Cultural Surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. Retrieved June 2nd, 2018, from <https://ccsg.isr.umich.edu/chapters/>.

Video Tutorials:

1. **Hu, M.**, Patterson, S. & Freedman, V. (2022). Merging NSOC Files. Available at: <https://www.nhats.org/researcher/nhats/videos>
2. **Hu, M.**, Patterson, S. & Freedman, V. (2022). Applying for NHATS Restricted Data. Available at: <https://www.nhats.org/researcher/nhats/videos>
3. **Hu, M.**, Patterson, S. & Freedman, V. (2022). Applying for Sensitive Data. Available at: <https://www.nhats.org/researcher/nhats/videos>
4. **Hu, M.**, Patterson, S. & Freedman, V. (2022). Merging NHATS Files. Available at: <https://www.nhats.org/researcher/nhats/videos>
5. Patterson, S., **Hu, M.** & Freedman, V. (2022). Finding and Understanding NHATS Variables. Available at: <https://www.nhats.org/researcher/nhats/videos>
6. Freedman, V., **Hu, M.** & Patterson, S. (2022). Identifying Analytic Samples in NHATS. Available at: <https://www.nhats.org/researcher/nhats/videos>
7. Freedman, V., Patterson, S. & **Hu, M.** (2022). The NHATS Late-Life Disability Framework. Available at: <https://www.nhats.org/researcher/nhats/videos>
8. **Hu, M.**, Patterson, S. & Freedman, V. (2021). NHATS COVID-19 Supplements. Available at: <https://www.nhats.org/researcher/nhats/videos>
9. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using NSOC (Part 1: Files). Available at: <https://www.nhats.org/researcher/nhats/videos>
10. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using NSOC (Part 2: Naming Conventions). Available at: <https://www.nhats.org/researcher/nhats/videos>
11. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using NSOC (Part 3: Documentation). Available at: <https://www.nhats.org/researcher/nhats/videos>
12. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using NHATS (Part 1: Files). Available at: <https://www.nhats.org/researcher/nhats/videos>
13. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using NHATS (Part 2: Naming Conventions). Available at: <https://www.nhats.org/researcher/nhats/videos>
14. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using NHATS (Part 3: Documentation). Available at: <https://www.nhats.org/researcher/nhats/videos>
15. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Accessing NHATS and NSOC files. Available at: <https://www.nhats.org/researcher/nhats/videos>
16. **Hu, M.**, Patterson, S. & Freedman, V. (2021). NHATS Design Basics. Available at: <https://www.nhats.org/researcher/nhats/videos>
17. **Hu, M.**, Patterson, S. & Freedman, V. (2021). NHATS Sample Weights and Survey Design Variables. Available at: <https://www.nhats.org/researcher/nhats/videos>

18. **Hu, M.**, Patterson, S. & Freedman, V. (2021). NSOC Sample Design, Weights and Survey Design Variables. Available at: <https://www.nhats.org/researcher/nhats/videos>
19. **Hu, M.**, Patterson, S. & Freedman, V. (2021). Using the “Other Person” (OP) Files in NHATS. Available at: <https://www.nhats.org/researcher/nhats/videos>
20. **Hu, M.**, Patterson, S. & Freedman, V. (2021). NHATS Cognitive Capacity Measures. Available at: <https://www.nhats.org/researcher/nhats/videos>
21. **Hu, M.**, Patterson, S. & Freedman, V. (2020) Introduction to the National Health and Aging Trends Study (NHATS), Available at: <https://www.nhats.org/researcher/nhats/videos>
22. **Hu, M.**, Patterson, S. & Freedman, V. (2020) Introduction to the National Study of Caregiving (NSOC). Available at: <https://www.nhats.org/researcher/nhats/videos>

Presentations:

Invited Seminars / Presentations:

1. **Hu, M.** (March 2026). Deep Learning-Based Scoring of the Clock Drawing Test in the National Health and Aging Trends Study. In *NHATS/NSOC Webinar Series*.
2. **Hu, M.**, Murphey, Y.L., Qin T., Gonzalez, R., Zahodne L. & Freedman V. A. (September 2025) Enhancing Dementia Classification for Diverse Demographic Groups: Using Vision Transformer-Based Continuous Scoring of Clock Drawing Tests. In *AI-Driven Measurement in Gerontological Research, The Journals of Gerontology Series B Special Issue*. GSA webinar series.
3. **Hu, M.**, Murphey, Y.L., Wang, S., Qin T., Zhao Z., Gonzalez, R., Freedman V. A. & Zahodne L. (May 2023) Exploring the Use of Deep Learning Neural Networks to Improve Dementia Detection: Automating Coding of the Clock-Drawing Test. *Survey Research Center Seminar Series*, Institute for Social Research, University of Michigan, Ann Arbor.
4. **Hu, M.** & Skehan M. (Feb 2023) Introduction to the National Health and Aging Trends Study (NHATS) and Restricted Geographic Data in NHATS. *Rural Health and the Built and Social Environments Working Group Meeting, Interdisciplinary Network on Rural Population Health and Aging (funded by the National Institute on Aging: grant R24-AG065159)*. Virtual Seminar.
5. **Hu, M.**, Murphey, Y.L., Wang, S., Qin T., Zhao Z., Gonzalez, R., Freedman V. A. & Zahodne L. (May 2022) Exploring the Use of Deep Learning Neural Networks to Improve Dementia Detection: Automating Coding of the Clock-Drawing Test. *NHATS/NSOC Research in Progress Seminar*. Virtual Seminar.
6. **Hu, M.** (March 2022) Longitudinal Surveys with Older Adults: Data Collection and Research Opportunities. Virtual Seminar invited by Survey Methods Lab at Michigan Program in Survey and Data Science.
7. **Hu, M.** (Aug 2021) Challenges and Opportunities in Longitudinal Health and Well-Being Surveys with Older Adults. Virtual seminar invited by Facultad de Psicología. Universidad del Desarrollo, Chile.

Organized Symposiums:

1. **Hu, M.** & Patterson, S. (Nov 2022) Late-Life Care for Older Adults: Findings from NHATS and NSOC.

Gerontological Society of America (GSA) Annual Scientific Meetings 2022, Indianapolis.

2. **Hu, M.**, Smith, J. & Wells, B. (July 2019) Evaluating and Analyzing Life History Survey Data I & II. *European Survey Research Association Conference 2019, Zagreb, Croatia.*

Scientific Meetings:

1. **Hu, M.**, Van de Kerckhove, W., Kamens, J. & Freedman, V. A. (Submitted). Exploring National Estimates of Caregivers to Older Adults in the Context of a Longitudinal Follow-Back Study Design. In *Gerontological Society of America 2026 Annual Scientific Meeting, National Harbor, MD, United States.*
2. Lee, S., **Hu, M.**, Si, Y., Morales, S., Kim, J. H., Baez-Santiago, F., Niu, B., Huynh, M., Crouch, C. & Ji, M. (May 2026). *Human Versus Machine: Assessing LLM-Based Survey Questionnaire Translation with Human Evaluators and Automated Metrics.* In *The 81st Annual Conference of the American Association for Public Opinion Research, Los Angeles, CA, United States.*
3. Lee, S., Morales, S. & **Hu, M.** (May 2026). *The Role of Target Languages, LLM Models, Prompts, and Prompt Languages In the Quality of AI-Assisted Survey Questionnaire Translation.* In *The 81st Annual Conference of the American Association for Public Opinion Research, Los Angeles, CA, United States.*
4. Lee, S., **Hu, M.**, Si, Y., Li, M. & Niu, B. (May 2026). *When Silicon Sampling Meets Culture.* In *The 81st Annual Conference of the American Association for Public Opinion Research, Los Angeles, CA, United States.*
5. **Hu, M.**, Van de Kerckhove, W., Kamens, J. & Freedman, V. A. (May 2026). *Exploring National Estimates of Caregivers to Older Adults in the Context of a Longitudinal Follow-Back Study Design.* In *The 81st Annual Conference of the American Association for Public Opinion Research, Los Angeles, CA, United States.*
6. Tian, J., Alsharawy, A., **Hu, M.**, Naik, A. D. & Hou, Y. (May 2026). Practice Patterns among Primary Care Clinicians Caring for People Living with Dementia: Evidence from the National Dementia Workforce Study. In *American Geriatrics Society 2026 Virtual Annual Scientific Meeting. Virtual Meeting (United States)*
7. Xu, S., Ehrlich, J. R. & **Hu, M.** (November 2025). Longitudinal association between visual function and physical performance among older adults: Findings from NHATS In *The Gerontological Society of America 2025 Annual Scientific Meeting, Boston, MA, United States.*
8. **Hu, M.**, Murphey, Y.L., Qin T., Gonzalez, R., Zahodne L. & Freedman V. A. (May 2025) Automating Clock-Drawing Test (CDT) Scoring with Vision Transformer: Enhancing Dementia Classification with Continuous CDT Scores. In *80th Annual American Association for Public Opinion Research Annual Conference. St. Louis.*
9. Salwan, A. M., Hicks, P., Rein, D., Elam, A., Clarke, P., De Lott, L., **Hu, M.**, ... & Ehrlich, J. R. (May 2025). Census-tract Air Pollution Exposure and Vision Impairment in the National Health and Aging Trends Study. *Investigative Ophthalmology & Visual Science*, 66(8), 2008-2008.
10. **Hu, M.**, Murphey, Y.L., Wang, S., Qin T., Zhao Z., Gonzalez, R., Freedman V. A. & Zahodne L. (November 2024) Enhancing Dementia Classification for Diverse Groups: Transformer-Based Continuous Scoring of Clock Drawing Test. *Gerontological Society of America (GSA) Annual Scientific Meetings 2024, Seattle.*
11. Ehrlich, J. R., De Lott, L., Zhou, Y., **Hu, M.**, Mumby, R., Zheng, A., ... & Rein, D. B. (May 2024). Incidence Patterns of Presenting Visual Impairment among US Older Adults. *Investigative Ophthalmology & Visual Science*, 65(7), 1841-1841.
12. Leziak, K., Zhou, Y., Mumby, R., **Hu, M.**, De Lott, L., Rein, D. B., & Ehrlich, J. R. (May 2024). Association

between presenting vision impairment and hospitalization in older US adults. *Investigative Ophthalmology & Visual Science*, 65(7), 2429-2429.

13. **Hu, M.**, Freedman, V. A., Kamens, J., & McCloskey, S. (May 2024). Implications of Mode Effects When Changing to a Mixed-Mode (Web/Phone) Design: Variation by Question Characteristics. In 79th Annual American Association for Public Opinion Research Annual Conference. Atlanta.
14. **Hu, M.**, Murphey, Y.L., Wang, S., Qin T., Zhao Z., Gonzalez, R., Freedman V. A. & Zahodne L. (July 2023) Exploring the Use of Deep Learning Neural Networks to Improve Dementia Detection: Automating Coding of the Clock-Drawing Test. *2023 European Survey Research Conference, Milan, Italy*.
15. **Hu, M.**, Freedman V. A., Kamens, J. McCloskey, S. & Couper, M.P. (July 2023) Evaluating Changing to a Mixed Mode Design and Mode Effects in the National Study of Caregiving. *2023 European Survey Research Conference, Milan, Italy*.
16. **Hu, M.**, Murphey, Y.L., Wang, S., Qin T., Zhao Z., Gonzalez, R., Freedman V. A. & Zahodne L. (May 2023) Exploring the Use of Machine Learning to Automate the Coding of the Clock-Drawing Test. *78th American Association for Public Opinion Research Annual Conference. Philadelphia*.
17. **Hu, M.**, Murphey, Y.L., Wang, S., Qin T., Zhao Z., Gonzalez, R., Freedman V. A. & Zahodne L. (Nov 2022) Exploring the Use of Deep Learning Neural Networks to Improve Dementia Detection: Automating Coding of the Clock-Drawing Test. *Gerontological Society of America (GSA) Annual Scientific Meetings 2022, Indianapolis*.
18. **Hu, M.**, Freedman, V., Patterson, S. & Lewis, N. (Nov 2022) Evaluating the Primary Caregiver Construct in a National Survey of Older Adults. *Gerontological Society of America (GSA) Annual Scientific Meetings 2022, Indianapolis*.
19. **Hu, M.** (Oct. 2022) Estimation of Underreporting in Diary Surveys: U.S. National Household Food Acquisition and Purchase Survey. *International Food Acquisition Research and Methods (iFARM) Workshop. Maryland*.
20. **Hu, M.**, Freedman V. A., Kamens, J. McCloskey, S. & Couper, M.P. (May 2022) An Experimental Evaluation of Changing to a Mixed Mode Design in the National Study of Caregiving. The 77th Annual Conference of the American Association for Public Opinion Research. Chicago
21. **Hu, M.**, Freedman, V., Patterson, S. & Lewis, N. (May 2022) Evaluating the Primary Caregiver Construct in a National Survey of Older Adults. NHATS/NSOC Dementia Care Conference
22. **Hu, M.**, Patterson, S., Freedman, V. & Lewis, N. (May 2021) Understanding Family Caregiving in a National Survey of Older Population: Implications for Survey Design and Analysis. The 76th Annual Conference of the American Association for Public Opinion Research.
23. **Hu, M.** & Murphey, Y. (May 2021) Dementia diagnosis classification using deep learning neural networks based on Clock Drawing Test (CDT) and Medicare claims. *2021 Michigan Center on the Demography of Aging (MiCDA) Symposium*.
24. Ehrlich, J.R., **Hu, M.**, Zhou, Y. & Delott, L. (May 2021) Visual Disability, Race and Ethnicity, and Functional Trajectories Among Older Adults in the United States. *The NHATS 10th Anniversary Conference*.

25. **Hu, M.** & Freedman, V. (April 2021) Introduction to NHATS Covid-19 Supplemental Survey Data. *NHATS/NSOC Users Group Meeting*. Ann Arbor, MI.
26. Freedman, V. & **Hu, M.** (April 2021) Changes in Older Adults' Social Contacts Related to the Covid-19 Pandemic. *NHATS/NSOC Users Group Meeting*. Ann Arbor, MI.
27. **Hu, M.** & Melipillán, R., (Mar 2021) Examining Measurement Invariance of Depression among Male and Female in the China Health and Retirement Survey. *The 2021 Comparative Survey Design and Implementation (CSDI) workshop*. Virtual international meeting.
28. **Hu, M.** (Mar 2021) Machine Learning Grant Writing. *2021 ISR Series on Machine Learning*. Ann Arbor, MI.
29. **Hu, M.** (Sep 2020) Introducing Enhanced NSOC Data Files. *NHATS/NSOC Users Group Meeting*. Ann Arbor, MI.
30. **Hu, M.** (Jun 2020) Introducing Technical Paper: Accounting for Sample Design in NHATS and NSOC Analyses: Frequently Asked Questions. *NHATS/NSOC Users Group Meeting*. Ann Arbor, MI.
31. **Hu, M.**, Kirlin, J., West, B., He, W., Ong, A.R., Zhang, S., & Zhang, X. (Jun 2020) Estimation of Under-Reporting in Diary Surveys: An Application using the U.S. Food Acquisition and Purchase Survey. *The 75th Annual Conference of the American Association for Public Opinion Research*.
32. **Hu, M.**, Freedman, V. A., Ehrlich, J., Reed, N. S., Billington, C., & Kasper, J. (Jun 2020) Collecting Objective Vision and Hearing Disability Data in a National In-Home Survey of Older Population. *The 75th Annual Conference of the American Association for Public Opinion Research*.
33. **Hu, M.**, Melipillán, R., Zhang, X., & Smith, J. (Nov 2019). Evaluating Item Nonresponse in a Life History Calendar: An Analysis of Memory Effects. *Gerontological Society of America (GSA) Annual Scientific Meetings 2018*, Austin.
34. Ehrlich, J., **Hu, M.**, Freedman, V. A., Reed, N. S., Billington, C., & Kasper, J. (Oct 2019) Introducing Vision Tests into the National Health and Aging Trends Study. *Michigan Center on the Demography of Aging (MiCDA) Network on Longitudinal Studies of Aging in the U.S. Meeting*, Washington, DC.
35. Reed, N. S., **Hu, M.**, Freedman, V. A., Ehrlich, J., Billington, C., & Kasper, J. (Oct 2019) Introducing Hearing Tests into the National Health and Aging Trends Study. *Michigan Center on the Demography of Aging (MiCDA) Network on Longitudinal Studies of Aging in the U.S. Meeting*, Washington, DC.
36. **Hu, M.**, Melipillán, E., Zhang, X., & Smith, J. (July 2019). Evaluating item nonresponse in life history calendar. *2019 European Survey Research Conference*, Zagreb, Croatia.
37. Zhang, X., **Hu, M.**, & Smith, J. (July 2019). How cognitive functioning accounts for inconsistent reporting: a case study from the Health and Retirement Study. *2019 European Survey Research Conference*, Zagreb, Croatia.
38. **Hu, M.**, Melipillán, E. & Smith, J. (May 2019). Item nonresponse in HRS life history grid question associated with cognitive decline. *The 74th Annual Conference of the American Association for Public Opinion Research*, Toronto, Canada.
39. **Hu, M.**, He, W., Suolang, D., Zhang, S., West, B., Kirlin, J. A., & Zhang, X. (May 2019). Response patterns in a multi-day diary survey: implications for adaptive survey design. *The 74th Annual Conference*

of the American Association for Public Opinion Research, Toronto, Canada.

40. **Hu, M.**, Melipillán, E. & Smith, J. (March 2019). Multilevel analysis of memory effects in HRS life history survey. *Health and Retirement Study Life History Survey Workshop*, Ann Arbor.
41. **Hu, M.**, Smith, J. & Lee, S. (November 2018). Improving Age and Racial / Ethnic subgroup Health Comparisons using Visual Anchoring Vignettes. *Gerontological Society of America (GSA) Annual Scientific Meetings 2018*, Boston.
42. **Hu, M.** & Lee, S. (May 2018). Improving the Anchoring Vignette Methodology with Visual Vignettes. *The 73rd Annual Conference of the American Association for Public Opinion Research*, Denver, Colorado.
43. **Hu, M.** & Lee, S. (March 2018). The Use of Images in Anchoring Vignette Methodology for Health Comparisons. *Federal Committee on Statistical Methodology Research and Policy Conference*, Washington, DC.
44. Lee, S. & **Hu, M.** (March 2018). Ingroup Bias and Its Implications for Using Visual Images in Computerized Surveys. *The Comparative Survey Design and Implementation (CSDI) Workshop*, Limerick, Ireland.
45. **Hu, M.**, West, B. & Kirlin, J. (December 2017). The use of paradata to optimize data collection efficiency in food acquisition diary surveys. *International Conference on Survey Methodology and Research*, Chengdu, China.
46. Yan, T., Keusch, F. & **Hu, M.** (November 2016). Impact of response scale direction on survey responses in a web survey. *The first International Conference on Questionnaire Design, Development, Evaluation and Testing*, Miami, Florida.
47. **Hu, M.** & Yan, T. (July 2016). Comparing Scale Direction Effect among Hispanics vs Non-Hispanic Respondents. *The 2nd International Conference on Survey Methods in Multinational, Multiregional and Multicultural Contexts*, Chicago, Illinois.
48. **Hu, M.**, Lee, S. & Xu, H. (July 2016). Using Anchoring Vignettes to Improve Survey Data Quality. *The 2nd International Conference on Survey Methods in Multinational, Multiregional and Multicultural Contexts*, Chicago, Illinois.
49. Pennell, B.E., Alcer, K., Clemens, J., de Jong, J., Hibben, K.C., **Hu, M.**, Kelly, J. & Lin, Y. (July 2016). Cross-cultural survey guidelines: New and expanded. *The 2nd International Conference on Survey Methods in Multinational, Multiregional and Multicultural Contexts*, Chicago, Illinois.
50. **Hu, M.**, Lee, S. & McClain, C. (May 2016). Context Effects in Anchoring Vignette Questions. *The 71st Annual Conference of the American Association for Public Opinion Research*, Austin, Texas.
51. **Hu, M.**, Yan, T. & Keusch, F. (May 2016). The Impact of Response Scale Direction on Survey Responses in a Mixed-Mode Survey. *The 71st Annual Conference of the American Association for Public Opinion Research*, Austin, Texas.
52. **Hu, M.**, Lee, S. & Melipillán, E. (May 2016). Using Anchoring Vignettes to Control for Response Styles in Cross-Culture Surveys: Validity of a Multidimensional IRT Model. *The 69th Annual Conference of the World Association for Public Opinion Research*, Austin, Texas.

53. Lee, S., **Hu, M.**, Liu, M. & McClain, C. (May 2014). Increasing Cross-National Comparability of Disability Measures with Anchoring Vignettes. *The 69th Annual Conference of the American Association for Public Opinion Research*, Anaheim, California.
54. Lee, S., Liu, M. & **Hu, M.** (May 2014). Differential Response Styles of Subjective Life Expectancy and Cultural Differences in Time Orientation. *The 69th Annual Conference of the American Association for Public Opinion Research*, Anaheim, California.
55. Lee, S., Liu, M. & **Hu, M.** (March 2014). Differential Response Styles of Subjective Life Expectancy and Cultural Differences in Time Orientation. *The Comparative Survey Design and Implementation (CSDI) Workshop*, Bethesda, MD.
56. **Hu, M.**, Lee, S. & Liu, M. (March 2014). Increasing Cross National Comparability of Disability Measures with Anchoring Vignettes. *The Comparative Survey Design and Implementation (CSDI) Workshop*, Bethesda, Maryland.
57. **Hu, M.**, Lee, S. & Liu, M. (November 2013). Using Vignette Questions to Correct for Response Scale Usage. *The 38th Annual Conference of Midwest Association for Public Opinion Research*, Chicago, Illinois.
58. **Hu, M.** & West, B. (November 2013). How People from the U.S. and China Perceive Self-Rated Health. *The 38th Annual Conference of Midwest Association for Public Opinion Research*, Chicago, Illinois.
59. **Hu, M.** (March 2013). How People from the U.S. and China Perceive Self-Rated Health. *The Comparative Survey Design and Implementation (CSDI) Workshop*, Stockholm, Sweden.

Mentoring & Teaching:

Dissertation Committee Member

2025 – Present Oshiba-Fowode, Tolulope

Graduate Student Academic Advising – MPH & PhD

2025 – Present Varghese, Jennifer
 2025 – Present Clark, Helen Daifotis
 2025 – Present Yang, Shengteng
 2024 – Present Zhao, Huiyuan
 2024 – Present Tanner, Harlow

Faculty Mentor, Undergraduate Research Scholars Program:

2021 – 2022 Nora Lewis
 2019 – 2020 Andrew Arche (Blue Ribbon Award for outstanding research and presentation)

Faculty Mentor, Undergraduate Research Opportunity Program (UROP):

2022 – 2023	Aren Hite
2020 – 2021	Nora Lewis
2018 – 2019	Andrew Arche, Zoe Raymond and Minh Stephenson Vu
2017 – 2018	Alekya Lingamaneni and Regena Kokales
2016 – 2017	Brendan Killian

Faculty Mentor to Graduate Student Research Assistant:

2024 – Present	Huiyuan Zhao
2025 – Present	Shengteng Yang
Summer 2025	Puyang Zhao
2024 – 2025	Xinyi Chen
2023 – 2024	Carlos Cristiano Botia

Functional supervision:

2022 - 2024	Zachary Mason (Research technician intermediate)
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Classroom / Workshop Instructions:

Enrollment

Fall 2026	Instructor, PhD-level course: <i>Health Survey Research Design</i>	15 students
Spring 2026	Instructor, workshop at the Population Association of America Annual Meeting: <i>An Introduction to the National Health and Aging Trends Study (NHATS) and National Study of Caregiving (NSOC)</i>	About 15 participants
Fall 2025	Instructor, PhD-level course: <i>Health Survey Research Design</i>	12 students
Summer 2025	Co-Organizer and Lecturer, National Health and Aging Trends Study (NHATS) online summer workshop, University of Michigan (UM)	20-30 participants
Summer 2025	Co-Organizer and Lecturer, National Study of Caregiving (NSOC) online summer workshop, UM	20-30 participants
Summer 2025	Guest lecturer, Shoeleather Epidemiology	About 10 students
Spring 2025	Instructor, workshop at the Population Association of America Annual Meeting: <i>An Introduction to the National Health and Aging Trends Study (NHATS) and National Study of Caregiving (NSOC)</i>	About 20 participants
Spring 2025	Guest lecturer, Shoeleather Epidemiology	About 10 students
Fall 2024	Instructor, PhD-level course: <i>Health Survey Research Design</i>	14 students
Fall 2024	Instructor, PhD-level course: <i>Advanced Health Services Research Methods</i>	15 students
Fall 2024	Guest lecturer, Shoeleather Epidemiology	About 10 students
Summer 2024	Co-Organizer and Lecturer, National Health and Aging Trends Study (NHATS) online summer workshop, University of Michigan (UM)	20-30 participants
Summer 2024	Co-Organizer and Lecturer, National Study of Caregiving (NSOC) online	20-30

	summer workshop, UM	participants
Spring 2024	Instructor, PhD-level course: Health Survey Research Design	9 students
Fall 2023	Guest Lecturer, <i>Cognition, Communication, and Survey Measurement</i> , UM	20-30 students
Summer 2023	Co-Organizer and Lecturer, National Health and Aging Trends Study (NHATS) online summer workshop, University of Michigan (UM)	9 participants
Summer 2023	Co-Organizer and Lecturer, National Study of Caregiving (NSOC) online summer workshop, UM	7 participants
Fall 2022	Guest Lecturer, <i>Cognition, Communication, and Survey Measurement</i> , UM	20-30 students
Summer 2022	Co-Organizer and Lecturer, NHATS online summer workshop, UM	10 participants
Summer 2022	Co-Organizer and Lecturer, NSOC online summer workshop, UM	10 participants
2022 - Present	Co-Organizer and Lecturer, NHATS/NSOC workshop at the Gerontological Society of America (GSA) annual meetings	20-30 participants
2019 - Present	Co-Organizer and Lecturer, NHATS/NSOC Monthly Users Group Meetings	20–60 participants
Summer 2016	Guest lecturer, <i>Questionnaire Design</i> , UM	20-30 students
2014 – 2015	Teaching assistant, <i>Fundamentals in Survey Methodology</i> , UM	20-30 students
2013 – 2014	Teaching assistant, <i>Survey Practicum</i> , UM	20-30 students

Service / Leadership:

2024 – Present	Co-Chair, Faculty Search Committee, School of Public Health, University of Texas Health Science Center at Houston
2024 – Present	Member, Master and PhD Program Admissions Committee, School of Public Health, University of Texas Health Science Center at Houston
2024 – Present	Member, Master and PhD Program Scholarship committee, School of Public Health, University of Texas Health Science Center at Houston
2023 – Present	Invited Board Member, European Survey Research Association Board
2023	Member, Master Program Admission Review Committee, the Michigan Program in Survey and Data Science at the University of Michigan and the Joint Program in Survey Methodology at the University of Maryland
2023	Review Committee Member, Life Course Development Awards at the Institute for Social Research, University of Michigan
2022	Review Committee Member, Network for Innovative Methods in Longitudinal Aging Studies

(NIMLAS) pilot project proposals award

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| 2022 – 2025 | Review Committee Member, Sudman Student Paper Award of the 2022 American Association for Public Opinion Research (AAPOR) conference |
| 2016 | Conference Session Chair, the 2nd International Conference on Survey Methods in Multinational, Multiregional and Multicultural Contexts (3MC), Chicago |
| 2016 | Organization committee, the 2nd International Conference on Survey Methods in Multinational, Multiregional and Multicultural Contexts (3MC), Chicago |