

Ran Xu

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College of Agriculture, Health and Natural Resources
University of Connecticut
Storrs, CT. 06269

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ACADEMIC APPOINTMENTS

Associate Professor (Tenured)

Department of Allied Health Sciences, University of Connecticut

August 2025 -

Assistant Professor

Department of Allied Health Sciences, University of Connecticut

Affiliated Faculty, Department of Statistics, University of Connecticut

August 2019 – July 2025
May 2021 -

Postdoctoral Research Associate

Grado Department of Industrial and Systems Engineering, Virginia Tech

2017-May 2019

EDUCATION

Ph.D., Measurement and Quantitative Methods

2011-2016

College of Education, Michigan State University

Dissertation Title: “IDENTIFICATION, ESTIMATION, AND SENSITIVITY ANALYSIS OF CONTAGION EFFECTS USING LONGITUDINAL SOCIAL NETWORK DATA.”

Dissertation Advisor: Professor Kenneth A. Frank

B.S., Mathematics (Minor in Psychology)

2007-2011

Hefei University of Technology

RESEARCH INTERESTS

Quantitative Methods, Computational Social Science, Systems Science, Health Education, Behavior, Prevention and Policy.

Google Scholar Page: <https://scholar.google.com/citations?user=IVkoyjkAAAAJ&hl=en&oi=ao>

PEER-REVIEWED PUBLICATIONS

1. Wang, Y., Kuchmaner, C. A., Xu, X., & **Xu, R.** (2026). Who Gets Heard? Analyzing online restaurant reviews to understand the representation of vulnerable consumers. *Journal of Retailing and Consumer Services*, 89, 104566.
2. Zhang, G. ^, Osi, A., Ghaffarzadegan, N., Rahmandad, H., & **Xu, R.** (2025). Identifying delayed human response to external risks: an econometric analysis of mobility change during a pandemic. *BMC Medical Research Methodology*, 25(1), 244. ^**Student author**
3. Chacón, V., Antrum, C., Vaca, M. F. G., **Xu, R.**, & Caspi, C. (2025). Associations between housing stability and food insecurity among US low-wage workers. *American Journal of Preventive Medicine*, 108123.
4. Bannor, R. ^, **Xu, R.**, Kalinowski, J., Leahey, T., Caspi, C., Idiong, C. I., ... & Pagoto, S. (2025). Prevalence and Predictors of Posting Health-Related Content Among US Facebook Users: A Cross-Sectional Survey Study. *International Journal of Environmental Research and Public Health*, 22(6), 918. ^**Student author**
5. Lyu, W. ^, Chen, X., Miao, C., Lin, Q., Xiang, X., Zhang, G., & **Xu, R.** (2025). Revisiting the modified Retail

Food Environment Index (mRFEI): examining food access inequities over a decade in the United States. *Discover Public Health*, 22(1), 1-10. ^**Student author**

6. Khati, A., Copenhaver, M., **Xu, R.**, Altice, F. L., Wickersham, J. A., Gautam, K., ... & Shrestha, R. (2025). Oral pre-exposure prophylaxis (PrEP) receipt and persistence among opioid-dependent people who inject drugs initiating PrEP for HIV prevention. *Journal of Substance Use and Addiction Treatment*, 173, 209693.
7. Lin, Q., Chen, X., Xiang, X., Lyu, W. ^, Miao, C., Zhang, G. ^, **Xu, R.** (2025) Association of Activity-based Food Environment Index with Obesity-related Cancer Mortality in the US. *BMC Medicine*. 23(1), 167. ^**Student author**
8. Pagoto, S., **Xu, R.**, Bannor, R. ^, Idiong, C., Goetz, J., & Fernandes, D. (2024). Comparing Synchronous and Asynchronous Remotely Delivered Lifestyle Interventions: Protocol for a Randomized Noninferiority Trial. *JMIR Research Protocols*, 13(1), e65323. ^**Student author**
9. Ndreka, B. ^, Dipak, D., **Xu, R.** (2024). Evaluating Methods for Estimating Influence Effects in Social Networks: A Simulation Study. *Communications in Statistics*. ^**Student author**
10. Pagoto, S., Lueders, N., Palmer, L., Idiong, C., Bannor, R., **Xu, R.**, & Ingels, S. (2024). Best Practices for Designing and Testing Behavioral and Health Communication Interventions for Delivery in Private Facebook Groups: Tutorial. *JMIR Formative Research*, 8, e58627. <https://doi.org/10.2196/58627>
11. Pagoto, S. L., Goetz, J. M., **Xu, R.**, Wang, M. L., Palmer, L., & Lemon, S. C. (2024). Randomized non-inferiority trial comparing an asynchronous remotely-delivered versus clinic-delivered lifestyle intervention. *International Journal of Obesity*, 1-8. <https://doi.org/10.1038/s41366-024-01617-0>
12. Song, Y., **Xu, R.**, Huang, Y. H. C., Ni, S., & Fan, Y. (2024). Assessing the Interplay Between Public Attention and Government Responsiveness With Digital Trace Data: Navigating Leadership and Followership in China's COVID-19 Vaccination Campaign. *Social Science Computer Review*, 08944393241258217.
13. Narvaiz, S., Lin, Q., Rosenberg, J. M., Frank, K. A., Maroulis, S. J., Wang, W., & **Xu, R.** (2024). konfound: An R Sensitivity Analysis Package to Quantify the Robustness of Causal Inferences. *Journal of Open Source Software*, 9(95), 5779. <https://doi.org/10.21105/joss.05779>
14. Rudin, L. R., Tetreault, L., **Xu, R.**, Bauer, K. W., Pagoto, S. L., Duffy, V. B., ... & Waring, M. E. (2024). Sources and Perceived Credibility of Child Nutrition Information in Relation to Maternal Health Literacy. *Patient Education and Counseling*, 108199. <https://doi.org/10.1016/j.pec.2024.108199>
15. Burkholder, K., Bennett, B. L., McKee, S. L., Cohen, J. F., **Xu, R.**, & Schwartz, M. B. (2024). Participation in the US Department of Agriculture's Summer Meal Programs: 2019-2021. *Journal of School Health*. <https://doi.org/10.1111/josh.13438>
16. Gombi-Vaca, M. F., **Xu, R.**, Schwartz, M. B., & Caspi, C. E. (2023). Construct validity of the Charitable Food Nutrition Index. *Preventive Medicine Reports*, 36, 102515. <https://doi.org/10.1016/j.pmedr.2023.102515>
17. Lim, T. Y., **Xu, R.**, Ruktanonchai, N., Saucedo, O., Childs, L. M., Jalali, M. S., ... & Ghaffarzagdegan, N. (2023). Why Similar Policies Resulted In Different COVID-19 Outcomes: How Responsiveness And Culture Influenced Mortality Rates: Study examines why similar policies resulted in different COVID-19 outcomes in using data from more than 100 countries. *Health Affairs*, 42(12), 1637-1646. <https://doi.org/10.1377/hlthaff.2023.00713>
18. **Xu, R.**, Huang, X., Zhang, K., Lyu, W. ^, Ghosh, D., Li, Z., & Chen, X. (2023). Integrating human activity into food environments can better predict cardiometabolic diseases in the United States. *Nature Communications*, 14(1), 7326. ^**Student author**. <https://doi.org/10.1038/s41467-023-42667-8>
19. Cabral, J. ^, Morzillo, A. T., & **Xu, R.** (2023). A Stakeholder Network for Managing Multiple Forest Stressors and Roadside Forests. *Society & Natural Resources*, 1-18. ^**Student author**. <https://doi.org/10.1080/08941920.2023.2267500>
20. Lyu, W. ^, Seok, N. ^, Chen, X., & **Xu, R.** + (2023). Using Crowdsourced Food Image Data for Assessing Restaurant Nutrition Environment: A Validation Study. *Nutrients*, 15(19), 4287. ^**Student author**.

+**Corresponding author.** <https://doi.org/10.3390/nu15194287>

21. Pagoto, S., **Xu, R.**, Bullard, T., Foster, G. D., Bannor, R., Arcangel, K., Divito, J., Schroeder, M., Cardel, M. I. (2023). An Evaluation of a Personalized Multi-Component Commercial Digital Weight Management Program. *Journal of Medical Internet Research*. 25, e44955. doi: 10.2196/44955
22. Wang, Y., Xu, X., Kuchmaner, C. A., **Xu, R.** (2023). But it was supposed to be healthy! How expected and actual nutritional value affect the content and linguistic characteristics of online reviews for food products. *Journal of Consumer Psychology*. 33(4), 743-761. <https://doi.org/10.1002/jcpy.1376>
23. **Xu, R.**, Bannor, R. ^, Cardel, M. I., Foster, G. D., & Pagoto, S. (2023) How much food tracking during a digital weight-management program is enough to produce clinically significant weight loss?. *Obesity*. 31(7), 1779-1786. ^**Student author.** <https://doi.org/10.1002/oby.23795>
24. Cabral, J. ^, Morzillo, A. T., & **Xu, R.** (2023). Forest stressors and roadside vegetation management in an exurban landscape. *Urban Forestry & Urban Greening*, 127954. ^**Student author.** <https://doi.org/10.1016/j.ufug.2023.127954>
25. Jin, A. ^, Chen, X., Huang, X., Li, Z., Caspi, C. E., & **Xu, R.** ^ (2023). Selective Daily Mobility Bias in the Community Food Environment: Case Study of Greater Hartford, Connecticut. *Nutrients*, 15(2), 404. ^**Student Author.** +**Corresponding author.** <https://doi.org/10.3390/nu15020404>
26. Frank, K. A., Lin, Q., **Xu, R.**, Maroulis, S., & Mueller, A. (2022). Quantifying the robustness of causal inferences: Sensitivity analysis for pragmatic social science. *Social Science Research*, 102815. <https://doi.org/10.1016/j.ssresearch.2022.102815>
27. Rahmandad, H., **Xu, R.** ^, & Ghaffarzadegan, N. (2022). A missing behavioral feedback in COVID-19 models is the key to several puzzles. *BMJ Global Health*. 7(10), e010463. +**Corresponding author.** <https://doi.org/10.1136/bmjgh-2022-010463>
28. Gombi-Vaca, M. F., **Xu, R.**, Schwartz, M., Battista Hesse, M., Martin, K., & Caspi, C. E. (2022). Validating a Nutrition Ranking System for Food Pantries Using the Healthy Eating Index-2015. *Nutrients*, 14(19), 3899. <https://doi.org/10.3390/nu14193899>
29. Chen, X., Wang, H., Lyu, W. ^, & **Xu, R.** (2022). The Mann-Kendall-Sneyers test to identify the change points of COVID-19 time series in the United States. *BMC Medical Research Methodology*, 22(1), 1-9. ^**Student author.** <https://doi.org/10.1186/s12874-022-01714-6>
30. **Xu, R.**, Divito, J., Bannor, R. ^, Schroeder, M., & Pagoto, S. (2022). Predicting Participant Engagement in a Social Media-Delivered Lifestyle Intervention Using Microlevel Conversational Data: Secondary Analysis of Data From a Pilot Randomized Controlled Trial. *JMIR formative research*, 6(7), e38068. ^**Student author.** <https://doi.org/10.2196/38068>
31. Schwartz, M. B., Schneider, G. E., **Xu, R.**, Choi, Y. Y., Atoloye, A. T., Bennett, B. L., ... & Appel, L. J. (2022). Retail Soda Purchases Decrease and Water Purchases Increase: 6-Year Results From a Community-Based Beverage Campaign. *AJPM Focus*, 100008. <https://doi.org/10.1016/j.focus.2022.100008>
32. Rahmandad, H., **Xu, R.** ^, & Ghaffarzadegan, N. (2022). Enhancing long-term forecasting: Learning from COVID-19 models. *PLoS computational biology*, 18(5), e1010100. +**Corresponding author.** <https://doi.org/10.1371/journal.pcbi.1010100>
33. Pagoto, S. L., Schroeder, M. W., **Xu, R.**, Waring, M. E., Groshon, L., Goetz, J. M., ... & Bannor, R. ^ (2022). A Facebook-Delivered Weight Loss Intervention Using Open Enrollment: Randomized Pilot Feasibility Trial. *JMIR Formative Research*, 6(5), e33663. ^**Student author.** doi: 10.2196/33663
34. Frank, K. A., Lin, Q., Maroulis, S. J., Mueller, A. S., **Xu, R.**, Rosenberg, J.M., Hayter, C. S., Mahmoud, R.A., Kolak, M., Dietz, T., Zhang, L. (2022). Response to "Three Comments on the RIR method". *Journal of clinical epidemiology*, S0895-4356. DOI:10.1016/j.jclinepi.2022.01.020
35. McKee, S. L., **Xu, R.**, & Schwartz, M. B. (2022). Assessing the Effects of a Statewide Training Initiative on Local School Wellness Policies. *Health Promotion Practice*, 15248399211070808. <https://doi.org/10.1177/15248399211070808>

36. Chen, X., Johnson, E. ^, Kulkarni, A., Ding, C., Ranelli, N., Chen, Y., & **Xu, R.** + (2021). An Exploratory Approach to Deriving Nutrition Information of Restaurant Food from Crowdsourced Food Images: Case of Hartford. *Nutrients*, 13(11), 4132. ^**Student author.** +**Corresponding author.** <https://doi.org/10.3390/nu13114132>
37. Song, Y., Lin, Q., Kwon, K. H., Choy, C. H., & **Xu, R.** (2021). Contagion of offensive speech online: An interactional analysis of political swearing. *Computers in Human Behavior*, 107046. <https://doi.org/10.1016/j.chb.2021.107046>
38. **Xu, R.***, Rahmandad, H.*, Gupta, M., DiGennaro, C., Ghaffarzadegan, N., Amini, H., & Jalali, M. S. (2021). Weather, air pollution, and SARS-CoV-2 transmission: a global analysis. *The Lancet Planetary Health*, 5(10), e671-e680. * **Co-equal first authors.** [https://doi.org/10.1016/S2542-5196\(21\)00202-3](https://doi.org/10.1016/S2542-5196(21)00202-3)
39. **Xu, R.** (2021). Estimating Social Influence Using Latent Space Adjusted Approach in R. *The R Journal*. <https://doi.org/10.32614/RJ-2021-069>
40. Wang, H., **Xu, R.**, Qu, S., Schwartz, M. B., Adams, A., Chen, X. (2021). Health inequities in COVID-19 vaccination among the elderly: Case of Connecticut. *Journal of Infection and Public Health*. <https://doi.org/10.1016/j.jiph.2021.07.013>
41. Wang, Y., Chen, X., Yang, Y., Cui, Y., & **Xu, R.** (2021). Risk perception and resource scarcity in food procurement during the early outbreak of COVID-19. *Public Health*. <https://doi.org/10.1016/j.puhe.2021.04.020>
42. McKee, S. L., Gurganus, E. A., Atoloye, A. T., **Xu, R.**, Martin, K., & Schwartz, M. B. (2021). Pilot testing an intervention to educate and promote nutritious choices at food pantries. *Journal of Public Health*, 1-8. <https://doi.org/10.1007/s10389-021-01570-6>
43. **Xu, R.**, & Cavallo, D. (2021). Social Network Analysis of the Effects of a Social Media–Based Weight Loss Intervention Targeting Adults of Low Socioeconomic Status: Single-Arm Intervention Trial. *Journal of Medical Internet Research*, 23(4), e24690. <https://doi.org/10.2196/24690>
44. Frank, K. A., Lin, Q., Maroulis, S. J., Mueller, A. S., **Xu, R.**, Rosenberg, J.M., Hayter, C. S., Mahmoud, R.A., Kolak, M., Dietz, T., Zhang, L. (2021). Hypothetical case replacement can be used to quantify the robustness of trial results. *Journal of Clinical Epidemiology*. <https://doi.org/10.1016/j.jclinepi.2021.01.025>
45. Busenbark, J. R., Frank, K. A., Maroulis, S. J., **Xu, R.**, & Lin, Q. (2021). Quantifying the Robustness of Empirical Inferences in Strategic Management: The Impact Threshold of a Confounding Variable and Robustness of Inference to Replacement. In *Research in Times of Crisis*. Emerald Publishing Limited. <https://doi.org/10.1108/S1479-838720210000013010>
46. **Xu, R.**, Lakeh, A. B., & Ghaffarzadegan, N. (2021). Examining the characteristics of impactful research topics: A case of three decades of HIV-AIDS research. *Journal of Informetrics*, 15(1), 101122. <https://doi.org/10.1016/j.joi.2020.101122>
47. Schwartz, M., **Xu, R.**, Martin, K. (2020). Food Pantries Select Healthier Foods After Nutrition Information is Available on their Food Bank's Ordering Platform. *Public Health Nutrition*. 1-22. <https://doi.org/10.1017/S1368980020004814>
48. Wang, Y., **Xu, R.**, Schwartz, M., Ghosh, D., & Chen, X. (2020). COVID-19 and Retail Grocery Management: Insights from a Broad-based Consumer Survey. *IEEE Engineering Management Review*. <https://doi.org/10.1109/EMR.2020.3011054>
49. Cooksey-Stowers, K., Martin K. S., Read, M., **Xu, R.**, Schwartz, M. (2020) Supporting Wellness at Pantries (SWAP): changes to inventory in six food pantries over one year. *Journal of Public Health*, 1-9. <https://doi.org/10.1007/s10389-020-01350-8>
50. **Xu, R.**, Frank, K. A. (2020) Sensitivity Analysis for Network Observations with Applications to Inferences of Social Influence Effects. *Network Science*. 1-26. <https://doi.org/10.1017/nws.2020.36>
51. **Xu, R.** (2020). Statistical methods for the estimation of contagion effects in human disease and health networks. *Computational and Structural Biotechnology Journal*, 18,1754-1760. <https://doi.org/10.1016/j.csbj.2020.06.027>

52. **Xu, R.**, Blanchard, B. E., McCaffrey, J. M., Woolley, S., Corso, L. M., & Duffy, V. B. (2020). Food Liking-Based Diet Quality Indexes (DQI) Generated by Conceptual and Machine Learning Explained Variability in Cardiometabolic Risk Factors in Young Adults. *Nutrients*, 12(4), 882. <https://doi.org/10.3390/nu12040882>
53. Pagoto, S., Waring, M. E., & **Xu, R.** (2019). A Call for a Public Health Agenda for Social Media Research. *Journal of Medical Internet Research*, 21(12), e16661. <https://doi.org/10.2196/16661>
54. **Xu, R.**, Frank, K. A., Maroulis, S., Rosenberg, J. M. (2019). konfound: Command to quantify robustness of causal inferences. *The Stata Journal*, 19(3), 523-550. <https://doi.org/10.1177/1536867X19874223>
55. Kim, S., Wallsworth, G., **Xu, R.**, Frank, K. A., Schneider, B., Jacob, B., Dynarski, S. (2019). The Impact of the Michigan Merit Curriculum on High School Math Course Taking. *Educational Evaluation and Policy Analysis*, 0162373719834067. <https://doi.org/10.3102/0162373719834067>
56. **Xu, R.**, Deshon, R. P., Deshop, C. (2019). Challenges and Opportunities in the Estimation of Dynamic Models. *Organizational Research Methods*. <https://doi.org/10.1177/1094428119842638>
57. Ghaffarzadegan, N. *, & **Xu, R.** * (2019). Late retirement, early careers, and the aging of U.S. science and engineering professors. *PLOS ONE*, 13(12), e0208411. * **Co-equal first authors.** <https://doi.org/10.1371/journal.pone.0208411>
58. **Xu, R.**, Ghaffarzadegan, N. (2018). Neuroscience bridging scientific disciplines in health: who builds the bridge, who pays for it? *Scientometrics*, 117(2), 1183-1204. <https://doi.org/10.1007/s11192-018-2887-3>
59. Ghaffarzadegan, N., **Xu, R.**, Larson, R. C., Hawley, J. D. (2018). Symptoms vs. Root Causes: A Needed Structural Shift in Academia to Help Early Careers. *BioScience*, 68(10), 744-745. <https://doi.org/10.1093/biosci/biy092>
60. Frank, K. A. *, & **Xu, R.** *, Penuel, W. R. (2018). Implementation of Evidence Based Practice in Human Service Organizations: Implications from Agent-Based Models. *Journal of Policy Analysis and Management*, 37(4), 867-895. * **Co-equal first authors.** <https://doi.org/10.1002/pam.22081>
61. **Xu, R.** (2018). Alternative Estimation Methods for Identifying Contagion Effects using Longitudinal Social Network Data: A Latent-Space Adjusted Approach. *Social Networks*, 54, 101-117. <https://doi.org/10.1016/j.socnet.2018.01.002>
62. Song, Y., **Xu, R.** (2018). Affective Ties that Bind: Investigating the Affordances of Social Networking Sites for Commemoration of Traumatic Events. *Social Science Computer Review*, 0894439318770960. <https://doi.org/10.1177/0894439318770960>
63. Ghaffarzadegan, N., Rad, A. A., **Xu, R.**, Middlebrooks, S. E., Mostafavi, S., Shepherd, M., Chambers, L., Boyum, T. (2018). Dell's SupportAssist Customer Adoption Model: Enhancing the Next Generation of Data-Intensive Support Services. *System Dynamics Review*, 33(3-4), 219-253. <https://doi.org/10.1002/sdr.1587>
64. **Xu, R.**, Frank, K. A. (2016). The Implications for Network Structure of Dynamic Feedback between Influence and Selection. *Social Computing, Behavioral-Cultural Modeling, and Prediction*. Springer International Publishing. https://doi.org/10.1007/978-3-319-39931-7_13
65. Moore, J. A., **Xu, R.**, Frank, K. A., Draheim, H., & Scribner, K. T. (2015). [Social network analysis of mating patterns in American black bears \(*Ursus americanus*\)](https://doi.org/10.1111/mec.13290). *Molecular Ecology*, 24(15), 4010-4022. <https://doi.org/10.1111/mec.13290>

HANDBOOK CHAPTERS

66. Xiang, C., Miao, C., Lyu, W., Mai, G., **Xu, R.** (2025) From Space to Context: Contextualizing the Food Environment with GeoAI. Chapter in *GeoAI and Human Geography: The Dawn of a New Spatial Intelligence Era*.

67. Frank, K.*, **Xu, R.***, Maroulis, S. (Forthcoming) Polarization through the Pursuit of Balance between Networks and Beliefs. Chapter in Edward Elgar Handbook of Mathematical Sociology. ***Co-equal first authors.**
68. **Xu, R.**, & Lin, Q. (Forthcoming). A Social-spatial Network Approach to Characterize Social Determinants of Health in Syndemics Research within an Intersectionality Framework. Chapter in *Place & the Social-Spatial Determinants of Health*.
69. *Frank, K. A., & ***Xu, R.** (2020). Causal Inference in Network Analysis: Navigating Dependencies and Alternative Explanations to Create Good Science. Chapter in *Oxford Handbook of Social Network Analysis*. 288-310. ***Co-equal first authors.**

BOOK REVIEW

70. Frank, K. A., *Saw, G. K., & ***Xu, R.** (2016). Book review of “Causality in a Social World” by Guanglei Hong. *Observational Studies*. ***Equal co-authors.**

MANUSCRIPTS UNDER REVIEW

71. Lyu, W., **Xu, R.**, Xiang, C. Beyond Spatial Proximity: Conceptualizing the Perceived Food Activity Space. Under Review in Annals of the American Association of Geographers.
72. Sacco, S., **Xu, R.**, Huedo-Medina, T. Let’s Step Back From One P-Value: Statistical Testing considering Superpopulations. Under Review in Statistics in Medicine.

STATISTICAL PACKAGES

Rosenberg, J. M., **Xu, R.**, Frank, K. A. (2018). KONFOUND: R module to quantify robustness of causal inferences.

<https://jrosen48.github.io/konfound>

<http://konfound-it.com/>

Frank, K. A. & **Xu, R.** (2017). KONFOUND: Stata module to quantify robustness of causal inferences.

<https://ideas.repec.org/c/boc/bocode/s458298.html>

RESEARCH TALKS and TEACHING

Invited Research Talks

- | | |
|---|-------------|
| Rudd Center for Food Policy & Obesity, <i>University of Connecticut</i>
“Integrating human activity into food environments can better predict cardiometabolic diseases in the United States” | 2024 |
| Workshop at The UConn Center for mHealth and Social Media
“Introduction to Social Network Analysis in mHealth and Social Media Research” | 2021 |
| Statistics colloquia, Department of Statistics, University of Connecticut
“Identify Contagion Effects in Dynamic Social Networks: A latent-space adjusted approach” | 2021 |
| The Center for Spatial Data Science, University of Chicago
“The Modest Impact of Weather and Air Pollution on COVID-19 Transmission” | 2020 |
| Workshop at The UConn Center for mHealth and Social Media (CHASM) 2020 Annual Conference
“Introduction to Social Network Analysis in mHealth and Social Media Research” | 2020 |
| Connecticut Convergence Institute for Translation in Regenerative Engineering
“Identify Contagion Effects in Dynamic Social Networks: A latent-space adjusted approach” | 2020 |

Rudd Center for Food Policy & Obesity, <i>University of Connecticut</i>	2019
“Implementation of Supporting Wellness at Pantries (SWAP): Some Evidence from 25 Connecticut Food Pantries”	
<i>Quantitative Methods Workshop, University of Chicago</i>	2019
“Importance of Model Specification for Causal Inference in Social Network Analysis”	
<i>Center for Human Resource Research, Ohio State University</i>	2018
“Neuroscience Bridging Scientific Disciplines in Health: Who builds the Bridge, Who Pays for it?”	
<i>Dell EMC, Round Rock, Texas</i>	2017
“A Smart System of Prediction and Solution of SupportAssist’s Major Operational Problems”	
<i>Network Science Institute, Northeastern University</i>	2017
“The Social Dynamics of Group Polarization during Diffusion”	
<i>NIH Office of Behavioral and Social Science Research, Washington D.C.</i>	2017
“Research Trend for New BSSR Workforce”	

Guest Lecturer

<i>College of Education, Michigan State University</i>	2019
• Lecture on Estimating Social Influence with Latent Space Adjusted Approach	
<i>College of Education, Lehigh University</i>	2018
• Lecture on Advanced Topics in Social Network Analysis	
<i>Summer Institute, Peking University</i>	2014
• Lecture on Social Network Analysis and Agent-Based Model	
<i>Social Network Analysis Seminar, Michigan State University</i>	2014
• Lecture on Agent-Based Model	
<i>Social Network Analysis Seminar, Michigan State University</i>	2013
• Lecture on Agent-Based Model	

Instructor

<i>University of Connecticut:</i>	
AH/STAT 3005: Biostatistics for Health Professions	2020 -
AH 6310: Introduction to systems science and complexity	2020 -
AH 5095: Introduction to data science in Health	2023 -

Teaching Assistant

AERA Professional Development Workshop	2018
“What Would It Take to Change Your Inference? Quantifying the Discourse About Causal Inferences in the Social Sciences.”	
AERA Professional Development Workshop	2017
“Sensitivity Analysis: Quantifying the Discourse about Causal Inference.”	

CONFERENCE PRESENTATIONS

1. “Alternative Estimation Methods for Identifying Contagion Effects using Longitudinal Social Network Data.” 2025 ICSA Applied Statistics Symposium.
2. “Association of Activity-based Food Environment Index with Obesity-related Cancer Mortality in the US”. 2025 6th National Big Data Health Science Conference.
3. “Activity-based food environment and cardiometabolic health: A national observational study”. 2023 American Public

Health Association Annual Conference

4. "Predicting participant engagement in a social-media delivered lifestyle intervention using micro-level conversational data: A pilot feasibility randomized trial." UConn Center for mHealth and Social Media (CHASM) 2022 Annual Conference.
5. "An Exploratory Approach to Deriving Nutrition Information of Restaurant Food from Crowdsourced Food Images: Case of Hartford". 2022 National Big Data Health Science Conference
6. "Using social network analysis to understand the mechanisms of behavioral change in an online weight-loss intervention". Poster presentation at The UConn Center for mHealth and Social Media (CHASM) 2020 Annual Conference.
7. "How Funding Facilitates Interdisciplinary Research for Early Career Scientists: Evidence from Neuroscience". Institute for Research on Innovation and Science (IRIS) Summit, Ann Arbor. 2019
8. "The Network of Cross-Disciplinary Research in Health: Neuroscience Bridging Scientific Disciplines." Association for Public Policy Analysis & Management Fall Research Conference, Washington, D. C., 2018
9. "Alternative Estimation Methods for Identifying Contagion Effects using Longitudinal Social Network Data – A Latent Space Adjusted Approach." American Educational Research Association, New York. 2018
10. "The Network of Cross-disciplinary Research in Health: Neuroscience Bridging Scientific Disciplines." INFORMS conference, Houston, Texas. 2017
11. "The Micro-Dynamics of Network Leverage: Implications for Change Agents External to an Organization." International conference of the System Dynamics Society, Boston, Massachusetts. 2017
12. "Sensitivity analysis for biases in network observations." International Network for Social Network Analysis, Beijing, China, 2017.
13. "The Impact of the Michigan Merit Curriculum on High School Math Course-Taking." American Educational Research Association, San Antonio, Texas. 2017.
14. "The Implications for Network Structure of Dynamic Feedback between Influence and Selection." International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation, Washington D.C., 2016.
15. "Alternative Estimation Methods for Identifying Contagion Effects using Longitudinal Social Network Data." International Network for Social Network Analysis, Newport Beach, California, 2016.
16. "The Impact of the Michigan Merit Curriculum on High School Math Course-Taking." Association for Education Finance and Policy, Denver, Colorado, 2016.
17. "The Micro-Dynamics of Network Leverage: Implications for Change Agents External to a System." Midwest Sociology of Education, University of Notre Dame, 2014.
18. "The Micro-Dynamics of Network Leverage: Implications for Change Agents External to a System." International Network for Social Network Analysis, St. Petersburg, Florida, 2014.

OTHER SELECTED CONFERENCE PROCEEDINGS

19. Chen, X., Jin, A., **Xu, R.** (2023). Examining human mobility patterns in restaurant patronization: A social vulnerability perspective of demand and supply 3rd Annual NorthEast Chapter of the Travel and Tourism Research Association (NETTRA) Conference.
20. Schwartz, M. B., Schneider, G. E., **Xu, R.**, Choi, Y. Y., Atoloye, A., Highsmith Vernick, N., & Appel, L. J. (2021). Abstract MP54: Retail Soda Purchases Decrease And Water Purchases Increase After Six Years Of A Healthy Beverage Campaign. *Circulation*, 143(Suppl_1), AMP54-AMP54.
21. Rudin, L. R., Tetreault, L., **Xu, R.**, Libby, B., Herrera, V., Pham, J., ... & Waring, M. E. (2021, April). Sources of Information About Child Nutrition and Perceived Credibility of Sources by Maternal Health Literacy. *Annals of Behavioral Medicine* (Vol. 55, pp. S428-S428).

22. Atoloye, A. T., McKee, S. L., Gurganus, E. A., **Xu, R.**, Martin, K., & Schwartz, M. B. (2020). P91 Pilot Test of Supporting Wellness at Pantries (SWAP): Clients Chose Healthier Foods after Implementation. *Journal of Nutrition Education and Behavior*, 52(7), S59.
23. Libby, B., Piera, P. L., Holovatska, M. M., Bracken, M., Herrera, V., **Xu, R.**, ... & Waring, M. E. (2020, May). Presence of Safety Disclaimers in Instagram Posts About Physical Activity During Pregnancy. *Annals of Behavioral Medicine* (Vol. 54, pp. S744-S744).
24. Pagoto, S., Waring, M. E., Arroyo, K. M., Goetz, J., Schroeder, M. W., Groshon, L. C., & **Xu, R.** (2020, May). Health Misinformation Shared by Participants in Professionally Moderated Weight Loss Groups on Facebook. *Annals of Behavioral Medicine* (Vol. 54, pp. S185-S185).

HONORS AND AWARDS

Excellence in Teaching Certificate, University of Connecticut	2020, 2022, 2023, 2024
Dissertation Completion Fellowship, Michigan State University	2016
Walker Hill Fellowship, College of Education, Michigan State University	2013-2015
Graduate Assistantship, Michigan State University	2011-2016

GRANTS

1. A Non-Inferiority Trial Comparing Synchronous and Asynchronous Remotely-Delivered Lifestyle Interventions. Sponsor: NIH. \$2,470,441. PI: Sherry Pagoto. Role: Co-I. July 2023 – June 2028.
2. RAISE: IHBEM Mathematical Formulations of Human Behavior Change in Epidemic Models Sponsor: NSF \$890,000. PI: Navid Ghaffarzadegan. Role: Sub-recipient PI (Sub-award: \$102,024). January 2023 – December 2026.
3. Quantifying the Robustness of Causal Inferences: Extensions and Application to Existing Databases. Sponsor: IES. \$886,592. PI: Kenneth Frank. Role: Sub-recipient PI (Sub-award: \$93,741). August 2022 – August 2025.
4. Validating a Nutrition Ranking System for Food Pantries Using the Healthy Eating Index-2015. Sponsor: Duke University. \$9,962. PI: Caitlin Caspi. Role: Co-I. June 2021 – May 2022.
5. Single arm trial of a multi-component commercial digital weight loss program. Sponsor: WW International, Inc. \$352,263. PI: Sherry Pagoto. Role: Co-I. January 2021 – January 2022.
6. Building Habits Together: Feasibility trial of an integrated mobile and social network weight loss intervention. Sponsor: NIH/NHLBI. \$836,134. PI: Sherry Pagoto. Role: Co-I. September 2020 – August 2023.
7. Health Promotion in Howard County Maryland. Sponsor: The Horizon Foundation. \$44,635. PI: Marlene Schwartz. Role: Senior Personnel. January 2020 – December 2020.
8. Developing a food image recognition technique to evaluate the nutrition information of restaurant foods and community food environment. Sponsor: College of Agriculture, Health and Natural Resources, University of Connecticut. \$60,000. Role: PI. October 2020 – September 2023.
9. How mothers evaluate and spread information related to child nutrition on social media. Sponsor: College of Agriculture, Health and Natural Resources, University of Connecticut. \$60,000. PI: Molly Waring. Role: Co-I. October 2019 – September 2022.
10. How Funding Facilitates Interdisciplinary Research for Early Career Scientists: Evidence from Neuroscience Research. Sponsor: IRIS, University of Michigan. \$30,000. PI: Ran Xu. January 2019 – December 2019.
11. Shaping Health Research Workforce for Tomorrow: Understanding Career Path and Productivity of early-career health policy researchers. Sponsor: Institute for Society, Culture and Environment, Virginia Tech. \$30,000. PI: Navid Ghaffarzadegan. Role: Co-I. July 2017 – June 2018.

- 12.** Identification, Estimation, and Sensitivity Analysis of Longitudinal Social Network Data. Sponsor: Dissertation Completion Award, Michigan State University. \$6000. PI: Ran Xu. May 2016 – September 2016.

PROFESSIONAL SERVICE

2019 NSF Panelists
2021 NSF Ad Hoc Reviewer
Associate Editor for Journal of Data Science

Journal Reviewer:

American Educational Research Journal
American Journal of Education
American Journal of Public Health
American Journal of Tropical Medicine and Hygiene
Applied Psychology: Health and Well-Being
BMJ Global Health
Ecology and Society
Educational Evaluation and Policy Analysis
F1000Research
JMIR Formative Research
JMIR Public Health and Surveillance
JMIR mHealth and uHealth
Journal of Educational and Behavioral Statistics
Journal of Management
Journal of Medical Internet Research
Journal of Policy Analysis and Management
Nature Communications
Network Science
Physics Letter A
Psychometrika
Sociological Methods and Research
The R Journal
SSM - Mental Health