

Weihua An

2024

1555 Dickey Drive
Atlanta, GA 30322

weihua.an@emory.edu
weihuaan.net

ACADEMIC POSITIONS

- 2017- **Emory University**, Departments of [Sociology](#) and [Quantitative Theory and Methods](#)
Professor (2024-); Associate Professor (2019-24); Assistant Professor (2017-19)
Affiliated Faculty, [The East Asian Studies Program](#)
Associated Faculty, [The Goizueta Business School](#)
Joint Faculty, [The Rollins School of Public Health](#)
- 2012-17 **Indiana University**, Assistant Professor of Sociology and Statistics
(One-year tenure clock pause for children care)
Affiliated Faculty, IU Network Science Institute
Affiliated Faculty, Data Science Academic Program, School of Informatics and Computing
- 2011-12 **Harvard University**, Lecturer, Department of Sociology
Postdoctoral Fellow, Kennedy School of Government (Working with Prof. Bruce Western)

OTHER POSITIONS

- 2024- Editor-Elect, *Sociological Methodology*
- 2016 Visiting Faculty, Institute for Quantitative Theory and Methods, Emory University
- 2015 Visiting Scholar, Institute for Quantitative Social Science, Harvard University

EDUCATION

Harvard University, Ph.D. in [Sociology](#), 2011; A.M. in [Statistics](#), 2009 (Click see [coursework](#))
Dissertation: Peer Effects on Adolescent Smoking and Social Network-Based Interventions
Committee: Christopher Winship, Martin K. Whyte, and A. James O'Malley
Doctoral Fellow, HKS Multidisciplinary Program in Inequality and Social Policy, 2007-11
Graduate Associate, Institute for Quantitative Social Science, 2007-11
Graduate Student Associate, Fairbank Center for Chinese Studies, 2010-11
GIS Institute Certificate, Center for Geographic Analysis, 2009
Claremont Graduate University, M.A. in Economics, 2005 (GPA: 3.94/4.0)
Peking University, M.A. in Political Science, 2002 (Outstanding Graduate)
Wuhan University, B.A. in Public Administration, 1999 (Outstanding Freshman and Graduate)

RESEARCH INTERESTS & EXPERTISE

Methods: Network Analysis; Causal Inference; Bayesian Analysis
Applications: Inequality and Social Policy; Health; Organizations
Software of Proficiency: R, Stata, C, \LaTeX

PUBLICATIONS (* Student coauthor)

Edited Volumes

- 2022-23 **An, Weihua** and Shawn Bauldry. *Methodological Advances in Quantitative Social Science*. The *Social Science Research* 50th Anniversary Series (Volumes 107, 108, 109, and 110).
- 2021 **An, Weihua**. *New Quantitative Approaches to Studying Social Inequality*. *Sociological Methods and Research* 50(3).
- 2020 **An, Weihua**, Matthew Brashears, and Cathryn Johnson. *Social Networks and Social Psychology*. *Social Psychology Quarterly* 83(4).

Refereed Articles

- 2024 Guan, Yue, Colleen M. McBride, Jingsong Zhao, Rebecca D. Pentz, Cam Escoffery, Yuan Liu, Yichun Cao, **Weihua An**, James A. Shepperd, and Kevin C. Ward. 2024. "Testing a Population-Based Outreach Intervention for Ovarian Cancer Survivors to Encourage their Close Relatives to Consider Genetic Counseling." *Cancer Epidemiology, Biomarkers & Prevention* 33 (9): 1185-1193.
- 2023 **An, Weihua**. "A Tale of Twin-Dependence: A New Multivariate Regression Model and an FGLS Estimator for Analyzing Outcomes with Network Dependence." *Sociological Methods and Research* 52(4): 1947-1980.
- Browne, Irene, **Weihua An**, Daniel Auguste, and Natalie D. Deckard. "Race, State Surveillance, and Policy Spillover: Do Restrictive Immigration Policies Affect Citizen Earnings?" *Social Forces* 102(2): 681-705.
- Shao, Iris Yuefan*, Shakira F. Suglia, **Weihua An**, David Mendez, Viola Vaccarino, and Alvaro Alonso. "Characterization of Trajectories of Physical Activity and Cigarette Smoking from Early Adolescence to Adulthood." *BMC Public Health* 23(1): 2473.
- Allen, Caitlin G.*, Colleen M. McBride, Cam Escoffery, Yue Guan, Clarissa Hood, Jingsong Zaho, Gene Brody, and **Weihua An**. "Developing and Assessing a Kin Keeping Scale with Application to Identifying Central Influencers in African American Family Networks." *Journal of Community Genetics* 14(6): 593-603.
- 2022 **An, Weihua**. "Comparing Egocentric and Sociocentric Centrality Measures in Directed Networks." *Sociological Methods and Research*. (In Press)
- An, Weihua**, Roberson Beauville*, and Benjamin Rosche*. "Causal Network Analysis." *Annual Review of Sociology* 48: 23-41.
- An, Weihua** and Tyler J. VanderWeele. "Opening the Blackbox of Treatment Interference: Tracing Treatment Diffusion through Network Analysis." *Sociological Methods and Research* 51(1): 141-164.
- An, Weihua**. "You Said, They Said: A Framework on Informant Accuracy with Application to Studying Self-Reports and Peer-Reports." *Social Networks* 70: 187-197.

- An, Weihua.** "Friendship Network Formation in Chinese Middle Schools: Patterns of Inequality and Homophily." *Social Networks* 68: 218-228.
- 2021 **An, Weihua** and Adam Glynn. "Treatment Effect Deviation as an Alternative to Blinder-Oaxaca Decomposition for Studying Social Inequality." *Sociological Methods and Research* 50(3): 1006-1033.
- 2019 **An, Weihua** and Bruce Western. "Social Capital in the Creation of Cultural Capital: Family Structure, Neighborhood Cohesion, and Extracurricular Participation." *Social Science Research* 81: 192-208.
- 2018 **An, Weihua.** "Causal Inference with Networked Treatment Diffusion." *Sociological Methodology* 48: 152-181.
- An, Weihua** and Ying Ding. "The Landscape of Causal Inference: Perspective from Citation Network Analysis." *The American Statistician* 72(3): 265-277.
- 2017 **An, Weihua** and Maoliang Ye. "Mind the Gap: Disparity in Redistributive Preference between Political Elites and the Public in China." *European Journal of Political Economy* 50: 75-91.
- An, Weihua** and Yesola Kweon*. "Do Higher Government Wages Induce Less Corruption? Cross-Country Panel Evidence." *Journal of Policy Modeling* 39(5): 809-826.
- An, Weihua** and Christopher Winship. "Causal Inference in Panel Data with Application to Estimating Race-of-Interviewer Effects in the General Social Survey." *Sociological Methods and Research* 46(1): 68-102. (Special issue on General Social Survey, edited by Michael Hout)
- Yuan, Yue* and **Weihua An.** "Context, Network, and Adolescent Perceived Risk." *Social Science Research* 62: 378-393.
- 2016 **An, Weihua.** "Fitting ERGMs on Big Networks." *Social Science Research* 59: 107-119. (Special issue on Big Data in the Social Sciences)
- An, Weihua.** "On the Directionality Test of Peer Effects in Social Networks." *Sociological Methods and Research* 45(4): 635-650.
- An, Weihua** and Xuefu Wang*. "LARF: Instrumental Variable Estimation of Causal Effects through Local Average Response Functions." *Journal of Statistical Software* 71(1): 1-13.
- An, Weihua** and Yu-Hsin Liu*. "keyplayer: An R Package for Locating Key Players in Social Networks." *The R Journal* 8(1): 257-268.
- 2015 **An, Weihua.** "Instrumental Variables Estimates of Peer Effects in Social Networks." *Social Science Research* 50: 382-394.
- An, Weihua.** "Multilevel Meta Network Analysis with Application to Studying Network Dynamics of Network Interventions." *Social Networks* 43: 48-56.

An, Weihua and Long Doan*. “Health Surveillance through Social Networks.” *Social Networks* 42: 8-17.

An, Weihua and Sam Schramski*. “Analysis of Contested Reports in Exchange Networks Based on Actors’ Credibility.” *Social Networks* 40: 25-33.

An, Weihua and William McConnell*. “The Origins of Asymmetric Ties in Friendship Networks: From Status Differential to Self-perceived Centrality.” *Network Science* 3(2): 269-292.

Desmond, Matthew and **Weihua An**. “Neighborhood and Network Disadvantage among Urban Renters.” *Sociological Science* 2: 329-350.

2013 Desmond, Matthew, **Weihua An**, Richelle Winkler, and Thomas Ferriss. “Evicting Children.” *Social Forces* 92(1): 303-327.

VanderWeele, Tyler J. and **Weihua An**. “Social Networks and Causal Inference.” Pp. 353-374 in *Handbook of Causal Analysis for Social Research*, edited by Stephen Morgan. New York: Springer. (Invited Paper, Editor-Reviewed)

2011 **An, Weihua**. “Models and Methods to Identify Peer Effects.” Pp. 514-532 in *The Sage Handbook of Social Network Analysis*, edited by John Scott and Peter J. Carrington. London: The Sage Publications. (Invited Paper, Editor-Reviewed)

2010 **An, Weihua**. “Bayesian Propensity Score Estimators: Incorporating Uncertainties in Propensity Scores into Causal Inference.” *Sociological Methodology* 40: 151-189. (The Clifford Clogg Award from the American Sociological Association for best graduate student paper in methodology)

Essays

2023 **An, Weihua** and Shawn Bauldry. “Methodological Advances in Quantitative Social Science: In Celebration of the *Social Science Research* 50th Anniversary.” *Social Science Research* 110: 102843.

2021 **An, Weihua**. “Fear Not Scarcity but Inequality, Not Poverty but Instability.” *Sociological Methods and Research* 50(3): 939-943.

2020 **An, Weihua**, Matthew Brashears, and Cathryn Johnson. “The Nearness between Us, and the Space within Ourselves.” *Social Psychology Quarterly* 83(4): 315–318.

Software and Code (> 147K Downloads)

2023 **An, Weihua**. “**DIDMatch**: Combing Difference-in-Difference and Matching for Robust Causal Inference in Panel Data Analysis.” *Stata Code*. [Reference Paper]

2021 **An, Weihua**. “**fglsnet**: A Feasible Generalized Least Squares Estimator for Regression Analysis of Outcomes with Network Dependence.” An R package available on CRAN. [Reference Paper] [Download Count]

2015 **An, Weihua** and Yu-Hsin Liu*. “**keyplayer**: Locating Key Players in Social Networks.” An R package available on CRAN. [Reference Paper] [Download Count]

- 2014 **An, Weihua.** [“Credibility: Addressing Contested Reports in Exchange Networks Based on Actors’ Credibility.”](#) R code to implement the methods proposed in An and Schramski (2015).
- 2013 **An, Weihua** and Xuefu Wang*. [“LARF: Local Average Response Functions for Instrumental Variable Estimation of Treatment Effects.”](#) An R package available on CRAN. [Reference Paper] [Download Count]
- An, Weihua, Huizi Xu***, and Zhida Zheng*. [“IUPS: Incorporating Uncertainties in Propensity Scores.”](#) An R package available on CRAN. [Reference Paper] [Download Count]

INVITED PRESENTATIONS

- 2024 **University of Washington, The 25th anniversary celebration conference** of the Center for Statistics and the Social Sciences
- 2023 **Centers for Disease Control and Prevention, The R Users Group Meeting**
- [Georgia State University](#), The 8th Workshop on Biostatistics and Bioinformatics
- [University of Hong Kong](#), The Population and Health Seminar
- Chinese University of Hong Kong**, The Computational Social Science Seminar
- 2022 **University of Georgia**, Department of Statistics Colloquium
- The New England Statistics Symposium**
- Renmin University of China**, School of Public Management
- 2021 **Peking University**, School of Government, The 20th Anniversary Seminar Series
- University of Chinese Academy of Social Sciences**, School of Government
- South China Normal University**, School of Political Science and Public Management
- University of Washington**, Center for Statistics and the Social Sciences
- Princeton University**, The China Workshop
- Facebook**, The Computational Social Science Group
- Penn State University**, Center for Social Data Analytics
- 2020 [Harvard University](#), The Applied Statistics Workshop
- [Yale University](#), Department of Biostatistics
- [Emory University](#), The China Colloquium
- Renmin University of China**, The Institute of Statistics and Big Data Seminar
- Southwestern University of Finance and Economics (China)**, School of Social Development
- 2019 [Emory University](#), The Summer Institute on Empirical Implications of Theoretical Models
- [Emory University](#), The China Colloquium

- Emory University, GROW (Global Research for Women) Seminar Series
- The Carter Center and Emory University, The International Symposium
- 2018 Emory University, Department of Biostatistics and Bioinformatics Seminar
- Emory University, The China Colloquium
- Emory University, Department of Biostatistics and Bioinformatics Seminar
- University of Georgia, Sociology Colloquium and Workgroup on Computational Social Science
- University of Georgia, School of Public and International Affairs
- 2017 University of Georgia, Department of Statistics
- Duke Network Analysis Center, Social Networks and Health Workshop
- Indiana University, Department of Sociology, Politics, Economics, and Culture Workshop
- 2016 Emory University, Department of Sociology and Institute for Quantitative Theory and Methods
- Purdue University, Social Science Methodology Symposium
- University of Louisville, Department of Bioinformatics and Biostatistics Colloquium
- Emory University, Institute for Quantitative Theory and Methods
- University of Chicago, Department of Sociology Colloquium
- Indiana University, School of Informatics and Computing
- University of Chicago, Booth School of Business, Econometrics and Statistics Workshop
- 2015 Harvard University, Department of Biostatistics, Seminar on Statistical Methods in Epidemiology
- Harvard University, Workshop in Economics of Science and Engineering
- The Harvard-MIT-BU Chinese Politics Research Workshop
- Harvard University, Department of Biostatistics, Big Data Seminar
- Harvard University, Department of Sociology, The Urban Social Processes Workshop
- New England Symposium on Statistics in Sports at Harvard University.
- Harvard University, Department of Sociology, Quantitative Methods in Sociology Workshop
- Harvard University, Department of Economics, The China Economy Seminar
- Indiana University, Department of Psychology, Social Psychology Seminar
- 2014 Duke University, Seminar of the Duke Network Analysis Center
- Duke University, Department of Sociology Colloquium
- Indiana University, Department of Information and Library Science Colloquium
- Indiana University, Workshop in Methods

- 2013 [Indiana University](#), Themester Social Science Network Workshop
[Indiana University](#), Department of Sociology, Politics, Economics, and Culture Workshop
[National Opinion Research Center](#), Workshop on General Social Survey
[Indiana University](#), The Ostrom Workshop in Political Theory and Policy Analysis
- 2011 [Indiana University](#), Departments of Sociology and Statistics
[Harvard University](#), Institute for Quantitative Social Science, Applied Statistics Workshop
[Harvard School of Public Health](#), Department of Global Health and Population
[University of Massachusetts at Boston](#), Department of Public Policy and Public Affairs
[Harvard University](#), Chinese Politics Research Workshop
[Duke University](#), Department of Sociology
- 2009 [Harvard University](#), The Applied Statistics Workshop

TEACHING (Graduate courses marked in bold)

Emory University

- QTM 220: Regression Analysis (Required course for QTM majors)
 QTM 385/**SOC 508**: Advanced Network Analysis
 SOC 201: Organizations and Society (Foundational course for sociology majors)
BSHES 760R: Training in Advanced Data Analytics (An NIH-funded multidisciplinary doctoral seminar)

Indiana University

- Statistics 681/Sociology 651**: Social Network Analysis
Statistics 681: Statistical Methods for Causal Inference
Statistics 501: Statistical Methods I: Linear Regressions
 Statistics 481: Statistics and Networks
 Sociology 210: Economy, Organizations, and Work

Harvard University

- 2012 Introduction to Sociology of Organizations, Lecturer
 2011 Social Network Analysis: Theory, Methods and Applications, Lecturer
 2010 **Qualifying Paper Seminar**, Teaching Fellow for Robert Sampson
 Political Sociology, Teaching Fellow for Matthew Baggetta
 2009 **Advanced Quantitative Methods**, Teaching Fellow for Christopher Winship
 2008-09 Medicine and Disease in Social Context, Teaching Fellow for Nicholas Christakis
 2008 Leadership and Organizations, Teaching Fellow for David Ager

ADVISING

Dissertation Committees (* Chaired or Co-chaired)

- Current: Roberson Beauville*, Sociology; Temi Alao, Sociology; Pablo Estrada, Economics; Mickey Fitzpatrick, Sociology
- 2024 Sara Kaplan, Business
Joni Webster, Sociology
Jiaxuan Yu, Sociology
Jingsong Zhao, Public Health
- 2023 Alexandra Manta, Economics
- 2022 Brian Kim, Business
Tricia Lewis, Sociology
Iris Shao, Public Health
Dimitri Zaras, Sociology
- 2021 Caitlin Allen, Public Health
John Pothen, Sociology
- 2020 Ju Hyun Park, Sociology
Allison Roberts, Sociology
- 2019 Wynand Kastart, Political Science, IU (Department Outstanding Dissertation Award)
Yeon Hak Kim, Public Policy, Georgia Tech
Trent Ryan, Sociology
- 2018 Alexander Antony, Political Science, IU
- 2017 Hyesong Ha, Public Affairs, IU
Jian Li, Education, IU
HuiGuo Liu, Sociology, IU
Onur Varol, Informatics, IU (IU Distinguished Dissertation Award)
Juha Yoon, Public Health, IU
- 2016 Josef Woldense, Political Science, IU
Yue Yuan, Criminology, IU
- 2015 Tait Medina, Sociology, IU

Undergraduate Honors Thesis Committees (* Chaired or Co-chaired)

- 2024 Wenqi (Vicky) Ge, QSS/Psychology, Highest Honors
- 2023 Leng Seong Che*, QSS/Sociology, Highest Honors
Su Hyun (Senna) Kim, QSS/Psychology, Highest Honors
Joyce Wang, QSS/Psychology, Highest Honors
- 2022 Nicholas Skelley, Economics, Highest Honors
- 2021 Cayleigh Jackson, International Studies, Highest Honors
Olivia Song*, QSS/Informatics, Highest Honors
Yuwei Wu, Applied Math and Statistics, Highest Honors
- 2020 Mia Jin, QSS/Psychology, Highest Honors

EDITORIAL WORK

- 2024 *Social Psychology Quarterly*, Editorial Board
- 2021-23 *Sociological Methodology*, Editorial Board
- 2020- *Journal of Machine Learning Research*, Editorial Board
- 2019- *Social Science Research*, Editorial Board
- 2017- *Sociological Methods and Research*, Editorial Board
- 2017-19 *American Sociological Review*, Editorial Board

REVIEW WORK

Methodological Journals: *American Statistician; Annual of Statistics; Field Methods; Journal of the American Statistical Association; Journal of Computational and Graphical Statistics; Journal of Machine Learning Research; Sociological Methodology; Sociological Methods and Research; Statistics in Medicine; Statistica Sinica; Journal of Educational and Behavioral Statistics; Journal of Statistical Software; Survey Research Methods*

Substantive Journals: *American Journal of Sociology; American Political Science Review; American Sociological Review; Demography; Epidemiology; Journal of Adolescent Health; PLOS ONE; PNAS; Public Administration Review; Science Advances; Social Forces; Social Networks; Social Problems; Social Science and Medicine; Social Science Research; Sociological Spectrum; Sociological Studies (In Chinese); Socius*

Books: Cambridge University Press (Two); CHAPMAN & HALL/CRC; SAGE (Six); Springer.