

Weihua An

2022-01

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EMPLOYMENT

- 2017–Now. **Emory University**, Departments of [Sociology](#) and [Quantitative Theory and Methods](#)
Associate Professor (tenured, 2019-); 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](#)
- 2012-2017. **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
- 2011-2012. **Harvard University**, Lecturer, Department of Sociology
Postdoctoral Fellow, Kennedy School of Government (Working with Prof. Bruce Western)

OTHER POSITIONS

- 2018-. Associate, The China Research Center, Atlanta, GA, USA
2016. Summer. Visiting Faculty, Institute for Quantitative Theory and Methods, Emory University
2015. Fall. 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](#), 2007-2011
Graduate Associate, [Institute for Quantitative Social Science](#), 2007-2011
Graduate Student Associate, [Fairbank Center for Chinese Studies](#), 2010-2011
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 **An, Weihua** and Shawn Bauldry. *Methodological Advances in Quantitative Social Science*. The 50th Anniversary Series of *Social Science Research*. (Two Issues, In Process)
- 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).

Journal Articles

- 2022 **An, Weihua**, Roberson Beauville, and Benjamin Rosche. "Causal Network Analysis." *Annual Review of Sociology*. (Forthcoming)
- 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**. "A Tale of Twin-Dependence: A New Multivariate Regression Model and an FGLS Estimator for Analyzing Outcomes with Network Dependence." *Sociological Methods and Research*. (Forthcoming)
- An, Weihua**. "Fear Not Scarcity but Inequality, Not Poverty but Instability." *Sociological Methods and Research* 50(3): 939-943.
- 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.
- 2020 **An, Weihua**, Matthew Brashears, and Cathryn Johnson. "The Nearness between Us, and the Space within Ourselves." *Social Psychology Quarterly* 83(4): 315–318.
- 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.
- 2010 **An, Weihua**. “Bayesian Propensity Score Estimators: Incorporating Uncertainties in Propensity Scores into Causal Inference.” *Sociological Methodology* 40: 151-189. (The Clifford Clogg Award for best graduate student paper in methodology)

Book Chapters

- 2013 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)
- 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)

Software

- 2021 **An, Weihua**. “[fglsnet: A Feasible Generalized Least Squares Estimator for Regression Analysis of Outcomes with Network Dependence.](#)” An R package available on CRAN.
- 2015 **An, Weihua** and Yu-Hsin Liu*. “[keyplayer: Locating Key Players in Social Networks.](#)” An R package available on CRAN.
- 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.
- An, Weihua**, Huizi Xu*, and Zhida Zheng*. “[IUPS: Incorporating Uncertainties in Propensity Scores.](#)” An R package available on CRAN.

INVITED TALKS

- 2021 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 Seminar
[Emory University](#), The China Colloquium
- 2019 [Emory University](#), The NSF 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 on US-China Relations
- 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](#), Department of Sociology and Workgroup on Computational Social Science
[University of Georgia](#), School of Public and International Affairs
- 2017 [University of Georgia](#), Department of Statistics, Big Data Analytics Lab
[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, Department of Economics, Workshop in Economics of Science and Engineering
The Harvard-MIT-BU Chinese Politics Research Workshop
Harvard University, Department of Biostatistics.
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

Network Analysis

Regression Analysis

Economy, Organizations, and Work

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
2010. Political Sociology, Teaching Fellow for Matthew Baggetta
2009. **Advanced Quantitative Methods**, Teaching Fellow for Christopher Winship
2008-2009. Medicine and Disease in Social Context, Teaching Fellow for Nicholas Christakis
2008. Leadership and Organizations, Teaching Fellow for David Ager

ADVISING

Dissertation Committees

Now: Brian Kim, Business; Tricia Lewis, Sociology; Iris Yuefan Shao, Public Health; Joni Webster, Sociology; Jingsong Zhang, Public Health
2022 Dimitri Zaras, Sociology
2021 Caitlin Allen, Public Health; John Pothen, Sociology & Medicine
2020 Ju Hyun Park, Sociology; Allison Roberts, Sociology
2019 Wynand Kastart, Political Science, IU; Yeon Hak Kim, Public Policy, GaTech; 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

Thesis Committees (Chaired)*

2021 Olivia Song*, QSS/Informatics, Highest Honors
Cayleigh Jackson, International Studies, Highest Honors
Yuwei Wu, Applied Math and Statistics, Highest Honors
2020 Mia Jin, QSS/Psychology, Highest Honors

EDITORIAL WORK

2021-. *Sociological Methodology*, Editorial Board
2020-. *Journal of Machine Learning Research*, Editorial Board

2019-2022. *Social Science Research*, Editorial Board

2017-. *Sociological Methods and Research*, Editorial Board

2017-2020. *American Sociological Review*, Editorial Board

REVIEW WORK

General 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*

Methods Journals: *American Statistician*; *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 Statistical Software*; *Survey Research Methods*

Books: Cambridge University Press; CHAPMAN & HALL/CRC; SAGE (5 books)