

ELIZABETH E. BRUCH

Curriculum Vitae

ADDRESS

Department of Sociology, University of Michigan
500 S. State Street, Ann Arbor, Michigan, 48109, U.S.A.

SCHOOLING

B.A., Sociology, Reed College, 1999
M.A., Sociology, UCLA, 2001
Ph.D., Sociology, UCLA, 2006
M.S., Statistics, UCLA, 2008

POSITIONS HELD

Associate Director for Social Science, Michigan Institute for Data Science, 2023-
External Faculty Member, Santa Fe Institute, 2017-
Associate Professor of Sociology & Complex Systems, U-Michigan 2016-
Associate Research Professor, Institute for Social Research, 2016-
Assistant Professor of Sociology & Complex Systems, U-Michigan 2008-2016
Assistant Research Professor, Institute for Social Research, 2008-2016

FELLOWSHIPS, HONORS, AND AWARDS

Reed College Class of '21 Award recognizing "creative work of notable character,
involving an unusual degree of initiative and spontaneity," 1999
National Science Foundation Graduate Research Fellowship, 2000-2003
Robert Wood Johnson Foundation Health Policy Fellowship, 2006-2008
American Journal of Sociology Gould Prize for 2006-2007
James Coleman Outstanding Publication Award, ASA Rationality and Society, 2006
Robert Park Best Article Award, ASA Community and Urban Sociology, 2006
Fellow at the Center for Advanced Study in the Behavioral Sciences, 2013-2014
Outstanding Article Award from the ASA Mathematical Sociology Section, 2015
Merton Prize from the International Network of Analytical Sociologists, 2015
Fellow at the Institute for Advanced Study in Berlin, 2018-2019
Innovation Prize from the ASA Methodology Section, 2021

PUBLICATIONS

Under Review

Field, Elly and Elizabeth Bruch. 2022. "The Co-Evolution of Neighborhoods and Schools." Revise and Resubmit from *American Journal of Sociology*.

René F. Kizilcec, Rachel B. Baker, Elizabeth Bruch, Kalena E. Cortes, Laura T. Hamilton, David Nathan Lang, Zachary A. Pardos, Marissa E. Thompson, Mitchell L. Stevens. 2023. "From Pipelines to Pathways in the Study of Academic Progress." Revise and Resubmit from *Science*.

Articles

Feinberg Fred, Elizabeth Bruch, Braun M, Falk BH, Fefferman N, Feit EM, Helveston J, Larremore D, McShane BB, Patania A, Small ML. 2020. "Choices in networks: a research framework." *Marketing Letters* 31:349-59. [Triennial Choice Symposium paper, Bruch co-organized and led the workshop.]

Bruch, Elizabeth and Joffre Swait. 2019. "Choice Set Formation and its Implications for Segregation Dynamics." *Demography* 56(5):1665-1692.

Bruch, Elizabeth and Mark Newman. 2019. "The Structure of Online Dating Markets in U.S. Cities." *Sociological Science* 6: 219-234.

Bruch, Elizabeth and Mark Newman. 2018. "Aspirational Pursuit of Mates in Online Dating Markets." *Science Advances* 4: eaap9815.

Endsley, Arthur, Dan Brown, and Elizabeth Bruch. 2018. "Housing Market Activity is Associated with Disparities in Urban and Metropolitan Vegetation." *Ecosystems* 21: 1593-1607.

Dellaert, Benedict, Joffre Swait, Vic Adamowicz, Theo Arentze, Elizabeth Bruch, Elisabetta Cherchi, Caspar Chorus, Bas Donkers, Fred Feinberg, Antony Marley, Land Linda Salisbury. 2017. "Individuals' Decisions in the Presence of Multiple Goals." *Consumer Needs and Solutions* 1:1-14. [Triennial Choice Symposium Paper, Bruch was attendee of workshop.]

Bruch, Elizabeth and Fred Feinberg. 2017. "Decision Making in Social Environments." *Annual Review of Sociology* 43: 207-227.

Bruch, Elizabeth, Fred Feinberg, and Kee Yeun Lee. 2016. "Extracting multistage screening rules from online dating activity data." *Proceedings of the National Academy of Sciences of the United States of America* 113: 10530-10535.

Bruch, Elizabeth and Jon Atwell. 2015. "Agent-Based Models in Empirical Social Research." *Sociological Methods and Research* 44:186-221.

Bruch, Elizabeth. 2014. "How Population Structure Shapes Neighborhood Segregation." *American Journal of Sociology* 119:1221-1278.

Bruch, Elizabeth, and Robert Mare. 2012. "Methodological Issues in the Analysis of Residential Preferences and Residential Mobility." *Sociological Methodology* 42: 103-154.

Bruch, Elizabeth and Robert Mare. 2009. "Preferences and Pathways to Segregation: Reply to van de Rijt, Siegel, and Macy." *American Journal of Sociology* 114:1181-98.

Bruch, Elizabeth and Robert Mare. 2006. "Neighborhood Choice and Neighborhood Change." *American Journal of Sociology* 112: 667-709.

Book Chapters

Bruch, Elizabeth and Robert Mare. 2009. "Segregation Processes." In the *Oxford Handbook of Analytical Sociology*, edited by P. Bearman and P. Hedström. Oxford University Press.

Bruch, Elizabeth, Ross Hammond, and Peter Todd. 2015. "The Co-Evolution of Decision Making and Social Environments." Chapter in *Emerging Trends in the Social and Behavioral Sciences*, edited by Robert Kaplan and Stephen Kosslyn. Hoboken NJ: John Wiley and Sons.

INVITED TALKS SINCE 2019

Sociology Department, Stanford University
Sociology Department, Tel Aviv University
Demography Department, UC-Berkeley
Sociology Department, University of North Carolina at Chapel Hill.
Public Lecture, Institute for Advanced Studies at Princeton University
Summer Institute in Computational Social Science at Princeton University
Sociology Department, University of Chicago
Population Studies Colloquium, Princeton University
Nuffield College, Oxford University
Duke University, Office of Population Research
New York University, Data Science Seminar
Department of Sociology, Yale University
New York University, Department of Sociology
Colloquium, Institute for Advanced Study in Berlin (Wiko)

EXTRAMURAL RESEARCH GRANTS

"Dynamic Models of Race and Income Segregation." National Science Foundation

Doctoral Dissertation Grant, 2004-05. (\$7,500)

“Neighborhood Choice and Neighborhood Change: Evaluating Dynamic Models of Residential Segregation.” (with R. Berk and R. Mare) National Science Foundation, 2004-06. (\$230,000)

“Dynamic Models of Racial Residential Segregation.” (with L. Quillian) National Institute of Health R-21 Award, 2010-2013. Co-Principal Investigator. (\$275,000)

“Cognitively Plausible Models of Decision-Making.” National Institute of Health K01 Award, 2014-2019. Principal Investigator. (\$653,000)

“Dynamic Systems Modeling for Demography and Public Health.” National Institute of Health R-25 Curriculum Development and Training Award, 2014-2019. Principal Investigator. (\$980,000)

PROFESSIONAL SERVICE AND SCHOLARLY ACTIVITIES

External Service

Science Steering Committee, Santa Fe Institute 2020-.

Committee on Population Statistics for Population Association of America, 2018-2021.

Editorial Board, *Sociological Methodology*, 2008-2011 and 2015-2018.

Editorial Board, *Sociological Methods and Research*, 2016-.

Consulting Editor, *Sociological Science*, 2017-.

National Academy of Science Consensus Committee. 2013-2015.

Steering Committee, OBSSR Summit on Best Practices in Modeling for Public Health, Bethesda, MD. 2015.

Consulting Editor, *American Journal of Sociology*, 2011-2013.

Council Member, *Methodology Section*, American Sociological Association, 2018-2020.

Track leader, Agent-based Modeling Track of the National Institute of Health’s annual *Institute for Systems Science and Health*; May 2010, June 2011.

Reviewer for the *American Journal of Sociology*, *Sociological Methodology*, *Social Forces*, *Sociological Methods and Research*, *Demography*, *Population Research and Policy Review*, and the *American Sociological Review*.

Non-Departmental Service and Leadership at the University of Michigan

Associate Director in Social Science, Michigan Institute for Data Science, 2023-.

Member, Michigan Institute for Data Science Executive Committee, 2020-.

Member, Population Studies Center Advisory Committee, 2020-2023.

Member, Computing Education Task Force, University of Michigan, 2021.

Co-Chair, Quantitative Social Science Committee at University of Michigan, 2018

Faculty lead, University of Michigan Initiative in Computational Social Science,

September 2017-2019.
Faculty advisor, University of Michigan's Computational Social Science Graduate
Workshop, September 2016-2018.

Other Academic Service (partial list)

Organizer, "Internet and other Online Data," Session at the Population Association of
America Meetings in Washington DC, 2020
Co-Organizer, "The Evolution of Search in Human Societies," Google Ventures 2019
Co-Organizer, "Decision Processes on Networks," Triennial Choice Symposium, 2019
Co-Organizer, "Mapping the Future of Analytical Sociology" Stockholm, 2017
Organizer, "Complex Systems," Session at the American Sociological Association
Meetings in Montreal, 2017
Organizer, "Modeling Population Dynamics," Session at the Population Association of
America Meetings in Chicago, 2017
Organizer, "Big Data and Population Processes" Session at the Population Association of
America Meetings in Chicago, 2017
Co-Organizer, "Decision Processes in Urban Contexts," Invited Workshop at the Radcliffe
Institute for Advanced Study
Discussant of session on "Segregation and Contextual Inequality" at the Annual
Meetings of the Population Association of America, 2016.
Organizer and Presider of "Simulation Models for Understanding Health and Mortality"
at the Population Association of America, 2016.
Program Committee member, International Conference on Computational Social
Science, Helsinki Finland. 2015.
Organizer of "Population Processes" session at the Annual Meetings of the American
Sociological Association. 2014.
Co-organizer of "Models Big and Small," Center for the Study of Complex Systems at the
University of Michigan. 2014.
Senior Program Committee member, International Conference on Social Informatics
(SocInfo). 2014.
Organizer and Presider of "Behavioral Data and the Future of Stratification Research"
[Thematic session] at the Annual Meetings of the American Sociological Association.
2013.
Organizer and Presider of "Residential Mobility and Neighborhood Change" at the
Annual Meetings of the Population Association of America. 2009.
Discussant of session on "Segregation" at the Annual Meetings of the Population
Association of America, 2007.

Research Networks

National Institute of Health's Network on "Inequality, Complexity and Health," 2010-
2014.
Member, University of Chicago's "Inequality: Measurement, Interpretation, and Policy"

Network. 2013-.

TEACHING

Courses Taught

Quantitative Modeling (SOC 542)

Evaluation of Evidence (SOC 312)

Research Logics (SOC 506)

Analytical Sociology (SOC 595)

Tipping Points, Bandwagons, and Cascades: From Individual Behavior to Population Dynamics (SOC 260)

Computational Social Science ([link](#)) (SOC/QMSS 251)

Current Advisees in Sociology

Elly Field

Galen Hall (starting Fall 2023)

Former Advisees in Sociology

Anne Clark (Postdoctoral Fellow, University of Notre Dame)

Lydia Wileden (Mansueto Institute Postdoctoral Fellow, University of Chicago)

Jeff Lockhart (James S. McDonnell Foundation Fellow, University of Chicago)

Constance Hsiung, Sociology (Postdoctoral Researcher, Goethe University)

Michael Fang, Sociology (Assistant Scientist, Johns Hopkins University)

Jon Atwell, Sociology and Complex Systems (Assistant Professor, Stanford University)

Dissertation Committees (Member)

Jon Zelner, Sociology

Debra Hevenstone, Sociology

Longxiu Tian, Marketing

Kee Yeun Lee, Marketing

Jessica Hoel, Economics

Marta Murray-Close, Economics

Michelle Debbink, Public Health

Sara Rimer, Engineering

Arthur Endsley, Resource Ecology

Yuan He, Sociology

Dana Turjeman, Marketing

Sociology Undergraduate Honors Thesis Advising

Alexandra Cooperstock, Diana Saum, Nina Lucido