

RACHEL G. MCKANE

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POSITIONS

Assistant Professor, Brandeis University, Waltham, MA 2023 - Present
Department of Sociology
Jack Meyerhoff Chair of American Environmental Studies

Postdoctoral Research Associate, Brown University, Providence, RI 2021 - 2023
Population Studies and Training Center
Spatial Structures in the Social Sciences

EDUCATION

Ph.D. Sociology, Vanderbilt University, Nashville, TN 2020
M.A. Sociology, Vanderbilt University, Nashville, TN 2016
B.A. Global Studies (Political Economy), University of Tennessee, Knoxville 2012

AREAS OF INTEREST

environmental justice, environmental sociology, spatial inequality, political economy of cities
built environment, mutual aid, quantitative methods

REFEREED JOURNAL ARTICLES

Rachel McKane, Patrick Greiner, and David Pellow. “Mutual Aid as a Praxis for Critical Environmental Justice: Lessons from W.E.B DuBois, Critical Perspectives, and Mobilizing Collective Care in Disasters.” *Forthcoming, Antipode*.

Rachel McKane, David Pellow and Patrick Greiner. “Envisioning Disabled Futures: Mutual Aid as an Adaptive Strategy to Climate Change and Ecological Disablement.” *Forthcoming, Environmental Justice*.

John Logan, Brian Stults, and **Rachel McKane**. “Contributors to Concentrated Poverty of Blacks and Hispanics in Metropolitan America, 1980-2020 ” *Forthcoming, Journal of Urban Affairs*.

Patrick Greiner and **Rachel McKane**. 2022. [Does Racism have Inertia? A Study of Historic Redlining’s Impact on Present-Day Associations between Development and Air Pollution in U.S. Cities.](#) *Environmental Research Letters*. DOI:10.1088/1748- 9326/ac9070

Rachel McKane and David Hess. 2022. [The Impact of Ridesourcing on Equity and Sustainability in North American Cities: A Systematic Review of the Literature.](#) *Cities*. DOI:10.1016/j.cities.2022.104122

Rachel McKane and David J. Hess. 2021. [Ridesourcing and Urban Inequality in Chicago: Connecting Mobility Disparities to Unequal Development and Gentrification](#). *Environment and Planning A*. DOI:10.1177/0308518X211047872

Larry Isaac, **Rachel McKane**, and Anna Jacobs. 2021. [Pitting the Working-Class Against Itself: Solidarity, Strikebreaking, and Strike Outcomes in the Early U.S. Labor Movement](#). *Social Science History*. DOI:10.1017/ssh.2021.52

David J. Hess, **Rachel McKane**, and Kaelee Belletto. 2021. [Advocating a Just Transition: Civil Society and Industrial Change in a Carbon-Intensive Region](#). *Energy Research and Social Science*. DOI:10.1016/j.erss.2021.102004

David J. Hess, **Rachel McKane**, and Caroline Pietrzyk. 2021. [End of the Line: environmental justice, energy justice, and opposition to power lines](#). *Environmental Politics*. DOI:10.1080/09644016.2021.1952799

David J. Hess and **Rachel McKane**. 2021. [Making Sustainability Plans More Equitable: An Analysis of 50 U.S. Cities](#). *Local Environment*. DOI: 10.1080/13549839.2021.18920477

Rachel McKane, Lacey Satcher, Stacey L. Houston II, and David J. Hess. 2018. [Race, Space, and Waste: An Intersectional Approach to Environmental Justice in New York City](#). *Environmental Sociology*. DOI: 10.1080/23251042.2018.1429177

Rachel McKane and Holly McCammon. 2019. [Why We March: The Role of Grievances, Threats and Organizational Resources in the 2017 Women’s Marches](#). *Mobilization*. DOI:10.17813/1086-671X-23-4-401

Dara Naphan, Monica Ridgeway, Amanda Brockman, **Rachel McKane**, Portia Botchway, and Ebony McGee. 2019. [Narratives of Inequity in Doctoral Engineering and Career Trajectories shaped by an Equity Ethic](#). *Journal of Engineering Education*. DOI: 10.1002/jee.20284

BOOK CHAPTERS

David J. Hess and **Rachel McKane**. 2017. “Renewable Energy Research and Development: A Political Economy Perspective.” In David Tyfield, Rebecca Lave, Samuel Randalls, and Charles Thorpe, eds. *Routledge Handbook of the Political Economy of Science*.

MANUSCRIPTS UNDER REVIEW

Rachel McKane. “Transportation for Whom? A Study of Green Gentrification, Environmental Privilege, and Light Rail Transit in U.S. Cities” *Under Review*.

Rachel McKane and Patrick Greiner. “Paving the Way: A Study of Historic Redlining and Contemporary Transportation Emissions in U.S. Cities.” *Under Review*.

MANUSCRIPTS IN PROGRESS

Rachel McKane. “Environmental Privilege and White Supremacy: Environmental Terminology and Topography in HOLC’s Redlining Maps.”

Rachel McKane and Patrick Greiner. “Redlining, Interstate-Highways, and Transportation Emissions: Fueling Inequity in U.S. Cities.”

John R. Logan, **Rachel McKane**, H. Jacob Carlson, and Samuel Kye. “Predictors of Historic Neighborhood Redlining by Private Lenders and the HOLC, 1930-1940.”

GRANTS, HONORS AND AWARDS

American Academy for the Advancement of Science - Catalyzing Advocacy in Science Engineering, 2020 (Canceled - COVID19)

Graduate Fellow (\$5500, Vanderbilt Institute for Digital Learning), 2018

Research Fellowship (Vanderbilt Institute for Energy and the Environment), 2016 - 2020

Conference Travel Grants (4) (\$500-1000, Vanderbilt University), 2016 - 2018

Conference Travel Fellowship (\$500, ASA Environmental Sociology Committee on Racial Equity), 2018

Student Paper Award (\$400, Vanderbilt Department of Sociology), May 2016

Public Scholar Fellowship (\$2000, Curb Center, Vanderbilt), 2016 - 2017

Ford Foundation Predoctoral Fellowship, Honorable Mention, 2016

Small Research Grant (\$935, Vanderbilt Department of Sociology), 2016

Federal STEM Policy and Advocacy Program Attendee (Vanderbilt), 2015

Dean’s Student Advisory Council (University of Tennessee), 2010 - 2012

Baker Scholar Honor’s Program (Center for Public Policy, University of Tennessee), 2012

Hope Scholarship (University of Tennessee), 2007 - 2012

Pell Grant (University of Tennessee), 2007 - 2012

PRESENTATIONS

Invited Talks

“Redlining, Interstate-Highways, and Transportation Emissions: Fueling Inequity in U.S. Cities.”
The University of Tennessee, Knoxville. May 2023.

“Paving the Way: A Study of Historic Redlining and Contemporary Transportation Emissions in U.S. Cities.”

- *Kerry Ard Lab, School of Environment and Natural Resources, The Ohio State University.* October 2022.
- *Department of Sociology Colloquium, Vanderbilt University.* September 2022.

- *Population Studies and Training Center, S4 Colloquia, Brown University.* September 2022.

“The Environmental Significance of Redlining.” *Northeast Climate Justice Research Collaborative.* November 2022.

Invited Speaker to the West Virginia Center on Climate Change. 2021. *Declined - COVID-19.*

“The Intersection of Health and the Environment.” *Medicine Health and Society Colloquium, Vanderbilt University.* Fall 2016.

“Environmental Justice and Health” *Vanderbilt University School of Nursing.* Fall 2016.

Conferences

Rachel McKane. 2023. “Redlining, Interstate-Highways, and Transportation Emissions: Fueling Inequity in U.S. Cities.” *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

John R. Logan, Brian Stults, and **Rachel McKane.** 2023. “Contributors to Concentrated Poverty of Blacks and Hispanics in Metropolitan America, 1980-2020”. *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

John R. Logan, **Rachel McKane,** H. Jacob Carlson, and Samuel Kye. 2023. “Predictors of Historic Neighborhood Redlining by Private Lenders and the HOLC, 1930 - 1940”. *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

Rachel McKane. 2023. “The Environmental Significance of Redlining.” *Annual Meeting of the Urban Affairs Association. Nashville, TN.*

Rachel McKane. 2022. “Paving the Way: A Study of Historic Redlining and Contemporary Transportation Emissions in U.S. Cities.” *Population Association of America. New Orleans, LA.*

Rachel McKane, Patrick Greiner and David Pellow. 2022. “Mutual Aid for Transformative Environmental Justice: Lessons from W.E.B. DuBois, the Black Radical Tradition, and Mobilizing Collective Care During Disasters.” *Annual Meeting of the American Sociological Association. Los Angeles, CA.*

Rachel McKane. 2022. “Paving the Way to Emissions: Exploring the Relationship between Redlining and Residential Emission Patterns.” *Urban Affairs Association. Washington D.C.*

David Hess, Dasom Lee, and **Rachel McKane.** 2020. “Assessing Societal Concerns of Automated Vehicles: Policy and Design Implications.” *Technical University of Munich. Munich, Germany.*

David Hess, Dasom Lee, and **Rachel McKane.** 2020. “Assessing Societal Concerns of Automated Vehicles: Policy and Design Implications.” *IPAM- UCLA. Los Angeles, CA.*

Rachel McKane. 2020. “An Examination of Transportation Induced Gentrification in Cali-

fornia Cities.” *Annual Meeting of the American Sociological Association. San Francisco, CA.*

Larry Isaac, **Rachel McKane** and Anna Jacobs. 2020. “Pitting the Working-Class Against Itself: Solidarity, Strikebreaking, and Strike Outcomes in the Early U.S. Labor Movement.” *Annual Meeting of the American Sociological Association. San Francisco, CA.*

Rachel McKane and Holly McCammon. 2018. “Why We March: The Role of Grievances, Threats and Organizational Resources in the 2017 Womens Marches.” *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

Rachel McKane, Megan Robinson, and David J. Hess. 2018. “The March for Science of 2017: Urban Areas, Environmentalism, and the Politics of Science.” *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

Rachel McKane and Stacey L. Houston II. 2017. “Race, Space, and Waste: An Intersectional Approach to Environmental Justice in New York City.” *Annual Meeting of the American Sociological Association. Montreal, Canada.*

Rachel McKane. 2017. “Bus Depots in New York City: Examining Environmental Inequality and Health Disparities.” *Annual Meeting of the Southern Sociological Society. Greenville, SC.*

TEACHING EXPERIENCE

Brandeis University

Inequality and Environmental Justice in the City, Fall 2023

Brown University

The Political Economy of Cities, Summer @ Brown 2022, 2023

Austin Peay State University

Urban Sociology, Spring 2022

Environmental Sociology Spring 2019, Spring 2020, Fall 2021, Fall 2022

Work and Occupations, Fall 2020

Race and Ethnicity, Fall 2018

Belmont University

Environmental Sociology, Fall 2020

Introduction to Sociology, Summer 2020

Vanderbilt University

Environmental Justice and Health, Summer 2018

Teaching Assistant, Vanderbilt University

Sociology of Health and Environmental Science - Fall 2018

Human Ecology and Society - Fall 2016

Environmental and Sustainability Studies - Spring 2015, Spring 2016

Introduction to Sociology - Fall 2014

RESEARCH PROJECTS AND CONSULTING

Longitudinal Tract Data Base, Brown University *2021 - Present*
Preparation of tract data from ACS 2015-2019 for bridging census tracts across time. PI: John Logan

Climate Advocacy Lab *2020 - Present*
Summarize academic research for climate advocacy organizations. Create materials for applying social science research methods to advocacy. Contribute to reports on environmental justice issues.

Curb Center for Public Policy, Vanderbilt University *2020 - 2021*
Statistical and spatial data consultant for project on DEI initiatives in local arts agencies. Funded by the National Endowment of the Arts. PI: Dan Cornfield.

Center for Transportation (VECTOR), Vanderbilt University *2020 - 2021*
Research assistant for a project on transportation accessibility funded by the Tennessee Department of Transportation. Mentored undergraduate students on data collection. PI: Janey Camp.

Drinking Water Justice Lab, Vanderbilt University *2019 - 2021*
Research assistant for a project that uses community engagement to understand and assess drinking water justice issues. Mentored undergraduate and graduate students on spatial methodology and data analysis. PIs: Jonathan Gilligan and Yolanda McDonald.

Tennessee Department of Transportation - Diversity Project *Dec 2019*
Analyzed data from employee survey on DEI perceptions and experiences.

Institute for Energy and the Environment - Water Conservation in U.S. Cities, Vanderbilt University *2017 - 2018*
Contributed to agent based models on community water negotiation. Funded by the National Science Foundation. PIs: David J. Hess and Jonathan Gilligan.

Office of the Provost Shared Governance, Vanderbilt University *2017 - 2018*
Analyzed data from employee survey on job satisfaction.

SERVICE

Discipline

Committee on Racial Inclusion, Equity, and Justice *ASA Enviro. Soc.*, March 2021 - Present
Mentorship Program, *ASA Enviro. Soc.*, 2022

Occasional Reviewer: *Environmental Sociology; Socius; Sociological Forum; Mobilization; Energy Research and Social Science; Work and Occupations; Population and Environment; Journal of Transport Geography; Social Problems; Journal of Urban Planning and Development; Sustainability: Science, Practice, and Policy*

Associate Editor, *Work and Occupations*, July 2020 - June 2021

Vanderbilt University, Department of Sociology
Organizer, Environmental Justice Workshop, Spring 2019

Graduate Student President, 2017 - 2019
Graduate Student Vice President, 2016 - 2017
Graduate Student Council Representative, 2016 - 2017
Graduate Student Recruitment Coordinator, 2016 - 2017
Graduate Student Chair of Professional Development, 2015 - 2016

ANALYTIC SOFTWARE PROFICIENCY

R (advanced), ArcMap, QGIS

ADVANCED METHODS TRAINING

Multilevel Modeling, Spatial Analysis, Survey Research,
Social Network Analysis, Big Data, Computational Methods

PROFESSIONAL AFFILIATIONS

American Sociological Association:

- *Environmental Sociology, Community and Urban Sociology*

Eastern Sociological Society

Urban Affairs Association

Population Association of America

Northeast Climate Justice Research Collaborative

REFERENCES

Prof. David J. Hess
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Nashville, TN 37235-1811
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