

# RACHEL G. MCKANE

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## POSITIONS

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Assistant Professor, Brandeis University, Waltham, MA Department of Sociology Jack Meyerhoff Chair in American Environmental Studies	2023 - Present
Postdoctoral Research Associate, Brown University, Providence, RI Population Studies and Training Center Spatial Structures in the Social Sciences	2021 - 2023

## EDUCATION

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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

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

## REFEREED JOURNAL ARTICLES

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**Rachel McKane**, Patrick Greiner, and David Pellow. 2023. [Mutual Aid as a Praxis for Critical Environmental Justice: Lessons from W.E.B DuBois, Critical Perspectives, and Mobilizing Collective Care in Disasters](#). *Antipode*. DOI:10.1111/anti.12986

**Rachel McKane**, David Pellow and Patrick Greiner. 2023. [Envisioning Disabled Futures: Mutual Aid as an Adaptive Strategy to Climate Change and Ecological Disablement](#). *Environmental Justice*. DOI:10.1089/env.2022.0104

John R. Logan, Brian Stults, and **Rachel McKane**. 2023. [Contributors to Concentrated Poverty of Blacks and Hispanics in Metropolitan America, 1980-2020](#) *Journal of Urban Affairs*. 10.1080/07352166.2023.2250031

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

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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*.

## PERIODICAL PUBLICATIONS

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Rachel McKane and David Pellow. [A First Amendment battle looms in Georgia, where the state is framing opposition to a police training complex as a criminal conspiracy](#). *The Conversation*.

## MANUSCRIPTS UNDER REVIEW

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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

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**Rachel McKane** and Danielle Jacques\*. “The Rugged Terrain of White Supremacy: Nature, Hazards, and Neighborhood Valuation in Los Angeles Residential Security Maps”

**Rachel McKane** and Scott Markley. “Mapping Historic Injustice in Housing and Transportation: Redlining and the Construction of Interstate-Highways in U.S. Cities (1940-1970).”

**Rachel McKane** and Patrick Greiner. “The Carbon Footprint of Historic Racial Projects: Exploring the Link Between Redlining, Interstate-Highways, and Contemporary Transportation Emissions 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.”

\* Graduate student coauthor

## GRANTS, HONORS AND AWARDS

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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

Pell Grant (University of Tennessee), 2007 - 2012

## PRESENTATIONS

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### *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*

Co-presenter. 2023. “The Racial Differentiation of Space; and the Spatial Differentiation of Emissions: Understanding the Relationship Between Redlining and Primary Drivers of Emissions of CO2 emissions in U.S. Cities”. *Sociology Climate Pipeline Conference. Harvard University, Cambridge, MA.*

Co-presenter. 2023. “Contributors to Concentrated Poverty of Blacks and Hispanics in Metropolitan America, 1980-2020”. *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

Co-presenter. 2023. “Predictors of Historic Neighborhood Redlining by Private Lenders and the HOLC, 1930 - 1940”. *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

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

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

Co-presenter. 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.*

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

Co-presenter. 2020. “Assessing Societal Concerns of Automated Vehicles: Policy and Design Implications.” *Technical University of Munich. Munich, Germany.*

Co-presenter. 2020. “Assessing Societal Concerns of Automated Vehicles: Policy and Design Implications.” *IPAM- UCLA. Los Angeles, CA.*

Presenter. 2020. "An Examination of Transportation Induced Gentrification in California Cities." *Annual Meeting of the American Sociological Association. San Francisco, CA.*

Co-presenter. 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.*

Co-presenter. 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.*

Co-presenter. 2018. "The March for Science of 2017: Urban Areas, Environmentalism, and the Politics of Science." *Annual Meeting of the American Sociological Association. Philadelphia, PA.*

Co-presenter. 2017. "Race, Space, and Waste: An Intersectional Approach to Environmental Justice in New York City." *Annual Meeting of the American Sociological Association. Montreal, Canada.*

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

## TEACHING EXPERIENCE

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### **Brandeis University**

Inequality and Environmental Justice in the City, Fall 2023

Order and Change in Society, Spring 2024

Graduate Environmental Sociology, Spring 2024

### **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

## RESEARCH PROJECTS AND CONSULTING

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**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 - 2023*  
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.

## PROFESSIONAL SERVICE

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### Discipline

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

Occasional Reviewer: *Social Forces; Political Geography; 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*

Editorial Board, *The Sociological Quarterly*, Begins March 1, 2024  
Associate Editor, *Work and Occupations*, July 2020 - June 2021

## DEPARTMENT AND UNIVERSITY SERVICE

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**Brandeis University, Department of Sociology**  
Graduate Committee, 2023 - Present

**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

## THESIS AND DISSERTATION COMMITTEES

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Hannah Laffer, Brandeis University, B.A. in progress  
Kaelee Belletto, Vanderbilt University, Ph.D. in progress

## ANALYTIC SOFTWARE PROFICIENCY

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R (advanced), ArcMap, QGIS

## ADVANCED METHODS TRAINING

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

## PROFESSIONAL AFFILIATIONS

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**American Sociological Association:**

- *Environmental Sociology, Community and Urban Sociology*

**Eastern Sociological Society**

**Urban Affairs Association**

**Population Association of America**

**Northeast Climate Justice Research Collaborative**