

Jonathan Tollefson

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Brown University Department of Sociology
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EDUCATION

- 2019 -** Brown University / Ph.D., Sociology (degree expected spring 2024)
- Qualifying exam in Environmental Sociology
 - Qualifying exam in Urban Sociology
- 2016-2018** University of Vermont / M.S., Rubenstein School of Environment and Natural Resources
- 2011-2015** Brown University / Sc.B., Social Analysis and Research (with honors)

AREAS OF INTEREST

Environmental Inequality, Environmental Justice, Urban Sociology, Computational Sociology, Science and Technology Studies, Political Ecology, Climate Change

DISSERTATION RESEARCH

How industry segregated cities: The environmental dimensions of late 19th and early 20th century urban inequality. Three standalone papers presenting a comparative study of urban environmental inequality at the turn of the 20th century, drawing on an original computational approach to mapping urban industry in that period.

Committee:

- Scott Frickel (chair), Sociology and Institute at Brown for Environment and Society, Brown University
- Margot Jackson, Sociology and Population Studies and Training Center, Brown University
- Jennifer Candipan, Sociology and Population Studies and Training Center, Brown University

PUBLICATIONS

PEER REVIEWED ARTICLES

- 2023** Tollefson, J., Frickel, S., Gonsalves, S., and Marlow, T. [Parks, people and pollution: A relational study of socioenvironmental succession.](#) *City and Community* special issue, “Environmentalizing Urban Sociology” (online first, forthcoming in print).
- 2023** Tollefson, J., Frickel, S., Gonsalves, S., Marlow, T., Sucsy, R., Byrns, M., and Orpen-Tuz, M. [Early childcare and education in a post-industrial landscape: Inequalities in exposure to active and relic manufacturing in metropolitan Providence, Rhode Island.](#) *Environmental Justice* 16(4): 309-320.

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- 2022 Frickel, S., and **Tollefson, J.** [When environmental inequality racialized: Historical evidence from Providence, Rhode Island.](#) *Socius* 8: 1-14.
- 2021 **Tollefson, J.**, Frickel, S, and Restrepo, M. [Feature extraction and machine learning techniques for identifying historic urban environmental hazards: New methods to locate lost fossil fuel infrastructure in US cities.](#) *PLOS ONE* 16(8): e0255507. [Dissertation paper 1]
 - Finalist for the 2022 John Odland Award, American Association of Geographers Spatial Analysis and Modeling Group
- 2020 **Tollefson, J.** and Panikkar, B. [Contested extractivism: Impact assessment, public engagement, and environmental knowledge production in Alaska's Yukon-Kuskokwim Delta.](#) *Journal of Political Ecology* 27(1): 1166-1188.
 - Winner of the 2021 Graduate Student Paper Award, Rural Sociological Society Natural Resources RIG
- 2020 **Tollefson, J.** [Post-Fukushima discourse in the US press: Quantified knowledge, the technical object, and a panicked public.](#) *Public Understanding of Science* 29(7): 670-687. [Undergraduate honors thesis]
- 2018 Panikkar, B. and **Tollefson, J.** [Land as material, knowledge, and relationships: Resource extraction and subsistence imaginaries in Bristol Bay, Alaska.](#) *Social Studies of Science* 48(5): 715-739.

INVITED CHAPTERS

- Forthcoming** Candipan, J. and **Tollefson, J.** Cities. Invited chapter for *The Oxford Handbook of the Sociology of Machine Learning* (Borch, C. and Pardo-Guerra, J.P., eds.).

WORKING PAPERS

- Tollefson, J.** Environmental risk and the changing scale of urban inequality, 1880-1930. [Dissertation paper 2]. *Working paper, in preparation for submission to American Sociological Review.*
- Tollefson, J.** Environmental roots of long-term trajectories of neighborhood inequality. [Dissertation paper 3]. *In preparation.*
- Tollefson, J.** HOLC redlining as an environmental process. *Working paper, in preparation for submission to Urban Studies.*
- Tollefson, J.,** Frickel, S., Helgeson, J., and Gore, C. From adaptation to resilience: The evolution of a field. *Working paper, in preparation for submission to Environmental Research Letters.*
- Tollefson, J.,** Frickel, S., Helgeson, J., and Gore, C. The development and structure of community resilience planning research. *Working paper, in preparation for submission to npj Natural Hazards.*

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Burns, A. and **Tollefson, J.** Inequality in the effects of pesticide exposure on infant health. *Working paper delivered at Population Association of America (New Orleans, LA. Apr. 12-15, 2023) and American Sociological Association (Philadelphia, PA. Aug. 17-21, 2023).*

Tollefson, J. Suburban development and agricultural land conversion: New landscapes of environmental health inequality. *Working paper, delivered at Pacific Sociological Association (Sacramento, CA. Apr. 7-9, 2022).*

PUBLIC SCHOLARSHIP

Forthcoming **Tollefson, J.** Redlining and segregation in Providence, RI. Essay for *Mapping Inequality: Redlining in New Deal America*. Richmond, VA: University of Richmond Digital Scholarship Lab.

2021 **Tollefson, J.** and Frickel, S. [Gasworks, lost and found](#). *Urban Omnibus*. July 1.

2016 **Tollefson, J.** and Urso, M. [Black Lives Matter at St. Patrick's Day Parade](#). Op-ed in the *Providence Journal*. April 2.

AWARDS

2022 Finalist – John Odland Student Paper Award

- Spatial Analysis and Modeling Group, *American Association of Geographers*

2021 Winner – Graduate Student Paper Award

- Natural Resources RIG, *Rural Sociological Society*

2021 Winner – First Place Poster Award

- Dellinger Symposium, *Superfund Research Program of the NIEHS*

FELLOWSHIPS AND GRANTS

2023-2024 Research Fellow: Community Resilience and Risk, *Georgetown University / NIST-PREP*

- Research Fellow, Georgetown / National Institute of Standards and Technology Professional Research Experience Program (Nov. 2023 – May 2024).

2023-2024 Dissertation Writing Fellowship, *Brown University*

- Full academic funding (Sept. 2023 – May 2024).

2023 NIST-PREP Fellowship

- National Institute of Standards and Technology Professional Research Experience Program, full academic funding (Jan. – Jun. 2023).

2023 Graduate Research, Training, and Travel Award (\$3,145), *Institute at Brown for Environment and Society*

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- 2022 Finalist – Raskin Scholarship, *Earth Science Information Partners*
- 2021 NIEHS SRP Traineeship
- Superfund Research Program of the National Institute for Environmental Health Sciences, full academic funding (Jan. 2021 – Dec. 2021). Supported by NIEHS grant P42ES013660.
- 2021 Collaborative Research Award (\$2,000), *Brown University Department of Sociology*
- 2021 Dellinger Symposium Travel Award, *Superfund Research Program of the NIEHS*
- 2020 Collaborative Research Award (\$2,000), *Brown University Department of Sociology*
- 2019-2020 Graduate Fellowship, *Brown University*.
- Full academic funding (Sept. 2019 – Aug. 2020).
- 2016-2018 Governance of Large Mine Permitting Research Fellowship
- Full academic funding for the 2016-17 and 2017-18 academic years. Supported by National Science Foundation award #1642226 (PI: Bindu Panikkar).
- 2017 Florence Tinker Matteossian Memorial Grant (\$4,214), *University of Vermont*
- 2017 Graduate Student Senate Mini-Grant, *University of Vermont*
- 2017 Rubenstein Graduate Student Association Mini-Grant, *University of Vermont*
- 2013 Karen T. Romer Undergraduate Teaching and Research Award (\$3,000), *Brown University*
- Travel Grants
- 2022: GSC Conference Travel Grant, *Brown University*
 - 2021, 2022: Graduate Travel Grant, *Brown University*

INVITED PRESENTATIONS

- 2023 Invited lecture: The development and transformation of community resilience planning research: Insights from domain-topic models with chained dimensions. *NIST Applied Economics Office Research Seminar Series*. Washington, DC. Nov. 3.
- 2023 Invited panelist: The environmental dimensions of urban inequality, 1880-1930. *Spatial Data Science Symposium*. Online. Sept. 6.
- 2022 Invited lecture: Energy geography and urban inequality: Computational techniques for historical research. *Computational Environmental STS Working Group (Laboratoire Interdisciplinaire Sciences Innovations Sociétés, Paris)*. Paris, France. Jul. 10-13.

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- 2020 Invited lecture: Manufactured gas and historic environmental inequality. *Urban Theory and Data Lab (Harvard University)*. Cambridge, MA. Oct. 29.
- 2017 Invited lecture: Land use, power, and knowledge at the Northern resource frontier. *Rubenstein School of Environment and Natural Resources Graduate Symposium (University of Vermont)*. Burlington, VT. Oct. 13.

CONFERENCE PRESENTATIONS

- 2023 Urban fossil fuel production and the changing scale of racial segregation, 1880-1930. *International Association of Public Health Scholars*. Baltimore, MD. Oct. 2-5.
- 2023 Burns, A., and **Tollefson, J.** Inequality in the effects of pesticide exposure on infant health. *American Sociological Association*. Philadelphia, PA. Aug. 17-21.
- 2023 How industry segregated cities: Using computational data extraction to reexamine the formation of early-20th century segregation. *American Sociological Association*. Philadelphia, PA. Aug. 17-21. (Paper accepted, could not attend due to scheduling conflict).
- 2023 Burns, A., and **Tollefson, J.** Inequality in the effects of pesticide exposure on infant health. *Population Association of America*. New Orleans, LA. Apr. 12-15.
- 2023 Environmental inequality and the changing scale of urban segregation in the early 20th century. *Pacific Sociological Association*. Bellevue, WA, Mar. 30 – Apr. 2.
- 2023 What was the role of environmental risk in the early formation of neighborhood-level segregation? *American Association of Geographers*. Denver, CO. Mar. 23-27.
- 2022 Brownfields and green spaces: Neighborhood change and urban park access in a post-industrial city. *American Sociological Association*. Los Angeles, CA. Aug. 5-9.
- 2022 Frickel, S., and **Tollefson, J.** When environmental inequality racialized: Evidence from a historical case study. *American Sociological Association*. Los Angeles, CA. Aug. 5-9.
- 2022 Agricultural land conversion and new geographies of suburban environmental risk. *Pacific Sociological Association*. Sacramento, CA. Apr. 7-9.
- 2022 Gastown: Fossil fuels and the changing nature of urban environmental inequality at the turn of the 20th century. *Eastern Sociological Society*. Boston, MA. Mar. 10-13.
- 2022 New methods to locate historic fossil fuel infrastructures: How computational techniques can illuminate 19th century urban environmental hazards. *American Association of Geographers*. New York, NY and online. Feb. 25 – Mar 1.
- Presented as part of John Odland Award session.

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- 2021 Urban environmental inequality in the 19th century and the toxic legacy of the manufactured gas industry: Unearthing early fossil fuel infrastructure in American cities (poster). *Dellinger Symposium of the Superfund Research Program*. Apr. 28.
- First place poster award.
- 2021 Urban environmental inequality and the toxic legacy of the manufactured gas industry: Unearthing 19th century fossil fuel infrastructure in American cities. *Pacific Sociological Association*. Online. Mar. 17-21.
- 2018 Mining, public engagement, and contentious land imaginaries in Bristol Bay and the Yukon-Kuskokwim Delta, Alaska. *American Association of Geographers*. New Orleans, LA. Apr. 10-14.
- 2017 Knowledge, sovereignty, and resource extraction in rural Alaska: A case study of the Donlin Gold public comment process. *ArcticNet Annual Scientific Meeting*. Quebec City, QC. Dec. 11-15.
- 2017 Land as material, habitat and survival: Resource materiality and mining in Bristol Bay and the Yukon-Kuskokwim Delta, Alaska. *Society for the Social Studies of Science*. Boston, MA. Aug. 30 – Sept. 2.
- 2016 Resource materiality and resistance to mineral development in Bristol Bay, Alaska. *ArcticNet Annual Scientific Meeting*. Winnipeg, MB. Dec. 5-9.

WORKSHOPS AND PANELS ORGANIZED

- 2021 - Environmental Sociology Workshop, *Brown University*.
- present
- Brown University’s Environmental Sociology Workshop brings together faculty and graduate students to discuss ongoing sociological research on environmental topics.

TEACHING EXPERIENCE

UNIVERSITY TEACHING

- 2023 I.E. Business School and Brown University / “Society and Culture in the Age of Globalization” / *Teaching Assistantship* / Professor Meghan Kallman
- 2022 Brown University, Sociology / “Organizations and Society” / *Teaching Assistantship* / Professor Rachel Wetts
- 2022 Brown University, Environmental Studies / “Environmental Studies of Pollution” / *Guest Lecturer* / Professors Meredith Hastings and Scott Frickel
- 2022 I.E. Business School and Brown University / “Society and Culture in the Age of Globalization” / *Teaching Assistantship* / Professor Meghan Kallman

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- 2021** Brown University, Environmental Studies / “Environmental Studies of Pollution” / *Guest Lecturer* / Professors Meredith Hastings and Scott Frickel
- 2020** Brown University, Sociology / “Methods for Interdisciplinary Environmental Research” / *Teaching Assistantship* / Professor Rachel Wetts
- Advised individual student research projects from conception to conclusion.
- 2018** University of Vermont, Environmental Studies / “Human Ecology, Health, and Sustainability in the Circumpolar Arctic” / Co-taught with Dr. Bindu Panikkar
- Co-taught a seminar-style discussion course on the Arctic.
- 2017** University of Vermont, Rubenstein School of Environment and Natural Resources / “Social Processes and the Environment” / *Teaching Assistantship* / Professor Cecilia Danks
- 2017** University of Vermont, Environmental Studies / “Environmental Policy and Activism” / *Teaching Assistantship* / Dr. Trish O’Kane
- Advised students on conceiving, writing, and publishing individual op-eds in local newspapers.
- 2016** University of Vermont, Rubenstein School of Environment and Natural Resources / “Race, Culture, and Natural Resources” / *Teaching Assistantship* / Professor Clare Ginger
- Designed discussion curriculum and led weekly discussion sections with entering first-year students.

COMMUNITY TEACHING

- 2015-2016** Extraordinary Youth Ensemble (Providence, RI) / *Administrator and teacher*
- Developed curriculum and successfully obtained biannual grants from the Rhode Island State Council for the Arts to provide weekly instrument and music history instruction to Providence area high school students.
- 2014-2015** Trinity Academy for the Performing Arts (Providence, RI) / *Visiting Artist, Music Instructor*
- 2014-2015** Breakthrough Providence (Providence, RI) / *Teacher, “Demonstration and Organizing”*
- Developed original student-centered curriculum for 7th-9th grade students. Taught weekly lessons and advised student projects on the role of organizing in bringing about social and political change. Advised teaching assistant.

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SERVICE

- 2021 - Graduate Student Council (Brown University), Department of Sociology representative.
- 2023 Poster Judge, *International Association of Public Health Scholars* annual meeting. Baltimore, MD. Oct. 2-5.
- 2023 Presider, “Urban Sociology” panel session, *American Sociological Association* annual meeting. Philadelphia, PA. Aug. 17-21.
- 2023 Presider, “Environmental Justice” panel session, *Pacific Sociological Association* annual meeting. Bellevue, WA. Mar. 30 – Apr. 2.
- 2022 Evaluated submissions for Rural Sociological Society NRRIG paper award.
- Ongoing Peer review for *American Sociological Review*, *Public Understanding of Science*, *Population and Environment*, *Journal of Political Ecology*, *PLOS ONE*.

AFFILIATIONS

INSTITUTES, LABS, AND WORKING GROUPS

- 2022 - Computational Environmental STS Working Group (Laboratoire Interdisciplinaire Sciences Innovations Sociétés Paris, Technical University Munich, Brown University)
- 2020 - Institute at Brown for Environment and Society (Brown University)
- 2020 - 2022 Urban Theory and Data Lab (Harvard University)
- 2017 - 2018 Gund Institute for Environment (University of Vermont)

PROFESSIONAL MEMBERSHIPS

American Sociological Association

- Section memberships: Environmental Sociology; Community and Urban Sociology; Science, Knowledge, and Technology

American Association of Geographers

Eastern Sociological Society

Pacific Sociological Association

Rural Sociological Society

LANGUAGE AND TECHNICAL

Language: Japanese (conversational)

*I use an array of computational tools in my research and teaching, including statistical analysis in **R**, **Stata**, and **SPSS**; spatial analysis in **R**, **ArcGIS**, and **QGIS**; automation, web scraping, text analysis, and machine learning applications in **Python** and **R**; text analysis using the [Sashimi](#) toolset; and qualitative analysis in **NVivo** and **HyperResearch**.*