

# Jonathan Tollefson

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Brown University Department of Sociology  
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## EDUCATION

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- 2019 -** Brown University / Ph.D., Sociology
- 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

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

## DISSERTATION RESEARCH

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*How industry segregated cities: The environmental dimensions of late 19<sup>th</sup> and early 20<sup>th</sup> century urban inequality.* Three standalone papers presenting a comparative study of urban environmental inequality at the turn of the 20<sup>th</sup> 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

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### PEER REVIEWED ARTICLES

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- 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" 22(4): 286-307.
- 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 – 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.
- Awarded – 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.

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### INVITED CHAPTERS

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- Forthcoming** Candipan, J. and **Tollefson, J.** Machine learning and large-scale data for understanding urban inequality. Invited chapter for *The Oxford Handbook of the Sociology of Machine Learning* (Borch, C. and Pardo-Guerra, J.P., eds.).

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### WORKING PAPERS

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- Tollefson, J.** Environmental risk and the changing scale of urban inequality, 1880-1930. [Dissertation paper 2]. *Working paper*.
- Honorable Mention, 2024 Candace Rogers Award, Eastern Sociological Society
- Tollefson, J.**, Frickel, S., Helgeson, J., and Gore, C. Siloed interdisciplinarity?: A multi-level computational text analysis of community resilience planning. *Under Review*.
- Tollefson, J.** HOLC redlining as an environmental process. *Working paper*.
- Tollefson, J.**, Frickel, S., Helgeson, J., and Gore, C. From adaptation to resilience: The evolution of a field. *Working paper*.
- 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).*

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**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).*

**Tollefson, J.** Environmental roots of long-term trajectories of neighborhood inequality. [Dissertation paper 3]. *In preparation.*

### PUBLIC SCHOLARSHIP

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- 2023**      **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

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- 2024**      Honorable Mention – Candace Rogers Award (*Eastern Sociological Society*).
- 2022**      Finalist – John Odland Student Paper Award (Spatial Analysis and Modeling Group, *American Association of Geographers*).
- 2021**      Awarded – Graduate Student Paper Award (Natural Resources RIG, *Rural Sociological Society*).
- 2021**      Awarded – First Place Poster Award (Dellinger Symposium, *Superfund Research Program of the NIEHS*).

### FELLOWSHIPS AND GRANTS

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- 2023 - 2024**      Research Fellow: Community Resilience and Risk, *Georgetown University / NIST-PREP*
- Georgetown University / National Institute of Standards and Technology Professional Research Experience Program (Jan. – Jun. 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, <i>Earth Science Information Partners</i>
2021	NIEHS SRP Traineeship <ul style="list-style-type: none"><li>• Superfund Research Program of the National Institute for Environmental Health Sciences, full academic funding (Jan. 2021 – Dec. 2021). Supported by NIEHS grant P42ES013660.</li></ul>
2021	Collaborative Research Award (\$2,000), <i>Brown University Department of Sociology</i>
2021	Dellinger Symposium Travel Award, <i>Superfund Research Program of the NIEHS</i>
2020	Collaborative Research Award (\$2,000), <i>Brown University Department of Sociology</i>
2019 - 2020	Graduate Fellowship, <i>Brown University</i> . <ul style="list-style-type: none"><li>• Full academic funding (Sept. 2019 – Aug. 2020).</li></ul>
2016 - 2018	Governance of Large Mine Permitting Research Fellowship <ul style="list-style-type: none"><li>• Full academic funding for the 2016-17 and 2017-18 academic years. Supported by National Science Foundation award #1642226 (PI: Bindu Panikkar).</li></ul>
2017	Florence Tinker Matteossian Memorial Grant (\$4,214), <i>University of Vermont</i>
2017	Graduate Student Senate Mini-Grant, <i>University of Vermont</i>
2017	Rubenstein Graduate Student Association Mini-Grant, <i>University of Vermont</i>
2013	Karen T. Romer Undergraduate Teaching and Research Award (\$3,000), <i>Brown University</i>
Travel Grants	<ul style="list-style-type: none"><li>• 2021, 2022, 2023, 2024: Graduate School Travel Grant, <i>Brown University</i></li><li>• 2021, 2022, 2023, 2024: Sociology Dept. Travel Grant, <i>Brown University</i></li><li>• 2022: GSC Travel Grant, <i>Brown University</i></li></ul>

### INVITED PRESENTATIONS

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

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- 2024 Environmental risk and the reorganization of urban inequality in the late 19th and early 20th centuries. *Society for the Study of Social Problems*. Montreal, QC. Aug. 9-11.
- 2024 Urban environmental inequality from 1880 to 1930. *Population Association of America*. Columbus, OH. Apr. 17-20.
- 2024 The development and structure of community resilience planning research. *Eastern Sociological Society*. Washington, DC. Feb. 29 – Mar. 3.
- 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.
- 2023 **Tollefson, J.** and Silberstein, S. Right-wing extremism online: A quantitative and critical discourse analysis of the Parler website. *American Association for Applied Linguistics*. Portland, OR. Mar. 18-21.
- 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.

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- 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.
- 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.
- Awarded – 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.

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### WORKSHOPS AND PANELS ORGANIZED

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- 2024** Panel organizer, “Community resilience planning: What new methods reveal about the formation and transformation of a field.” *Disaster Research Center 60<sup>th</sup> Anniversary Workshop*. University of Delaware, Newark, DE. May 2-5.
- 2021 - present** Environmental Sociology Workshop, *Brown University*.
- Brown University’s Environmental Sociology Workshop brings together faculty and graduate students to discuss ongoing sociological research on environmental topics.

### TEACHING EXPERIENCE

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#### UNIVERSITY TEACHING

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- 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
- 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.

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- 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.

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### COMMUNITY TEACHING

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- 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.

### SERVICE

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- 2021 - present** 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. (Could not attend due to scheduling conflict).
- 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*.



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## AFFILIATIONS

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### INSTITUTES, LABS, AND WORKING GROUPS

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

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### PROFESSIONAL MEMBERSHIPS

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American Sociological Association

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

American Association of Geographers

Eastern Sociological Society

Interdisciplinary Association for Population Health Science

Pacific Sociological Association

Rural Sociological Society

Society for the Study of Social Problems

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## LANGUAGE AND TECHNICAL

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*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**.*