

# 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, 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.
- 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

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- 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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- 2024      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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## MANUSCRIPTS

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- Under Review      **Tollefson, J.**, Frickel, S., Helgeson, J., and Gore, C. Siloed interdisciplinarity?: A multi-level computational text analysis of community resilience planning.
- Working Papers      **Tollefson, J.** Environmental risk and the changing scale of urban inequality, 1880-1930. [Dissertation paper 2].
- Awarded – 2023 IPUMS USA Student Research Award
  - Awarded – 2024 Brent K. Marshall Student Paper Award, Society for the Study of Social Problems, Environment and Technology Division
  - Awarded – 2024 Graduate Student Paper Prize, Spatial Structures for the Social Sciences, Brown University
  - Honorable Mention – 2024 ASA Environmental Sociology Section Student Paper Award
  - Honorable Mention – 2024 Candace Rogers Award, Eastern Sociological Society
- Tollefson, J.** HOLC redlining as an environmental process. [Dissertation paper 3].
- Tollefson, J.**, Frickel, S., Helgeson, J., and Gore, C. From adaptation to resilience: The evolution of a field.
- Burns, A. and **Tollefson, J.** Inequality in the effects of pesticide exposure on infant health. *Delivered at Population Association of America (New Orleans, LA. Apr. 12-15, 2023) and American Sociological Association (Philadelphia, PA. Aug. 17-21, 2023).*
- In Progress      **Tollefson, J.** Suburban development and agricultural land conversion: New landscapes of environmental health inequality. *Delivered at Pacific Sociological Association (Sacramento, CA. Apr. 7-9, 2022).*

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## 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 Awarded – Brent K. Marshall Student Paper Award, Society for the Study of Social Problems, Environment and Technology Division
- 2024 Honorable Mention – Candace Rogers Award, Eastern Sociological Society
- 2024 Honorable Mention – ASA Environmental Sociology Section Student Paper Award
- 2024 Awarded – Graduate Student Paper Prize, Spatial Structures for the Social Sciences, Brown University
- 2023 Awarded – IPUMS USA Student Research Award
- 2022 Finalist – John Odland Student Paper Award, American Association of Geographers, Spatial Analysis and Modeling Group
- 2021 Awarded – Graduate Student Paper Award, Rural Sociological Society, Natural Resources RIG
- 2021 Awarded – First Place Poster Award, Dellinger Symposium (Superfund Research Program of the NIEHS)

## FELLOWSHIPS AND GRANTS

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- 2024 - 2025 Interdisciplinary Opportunities Fellowship (full funding, 2024-25 academic year), *Institute at Brown for Environment and Society*
- 2024 Research Fellow: Community Resilience and Risk (Jan. – Dec. 2024), *Georgetown University / NIST-PREP*
- Georgetown University / National Institute of Standards and Technology Professional Research Experience Program.
- 2024 Joukowski Summer Research Award (\$1,000), *Brown University*
- 2023 - 2024 Asa and Horace Learned Fellowship (full funding, 2023-24 academic year), *Brown University*
- 2023 NIST-PREP Fellowship (full funding, Jan. – Jun. 2023)
- National Institute of Standards and Technology Professional Research Experience Program.

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2023	Graduate Research, Training, and Travel Award (\$3,145), <i>Institute at Brown for Environment and Society</i>
2022	Finalist – Raskin Scholarship, <i>Earth Science Information Partners</i>
2021	NIEHS SRP Traineeship (full funding, Jan. 2021 – Dec. 2021) <ul style="list-style-type: none"> <li>• Superfund Research Program of the National Institute for Environmental Health Sciences. Supported by NIEHS grant P42ES013660.</li> </ul>
2021	Collaborative Research Award (\$2,000), <i>Brown University Department of Sociology</i>
2020	Collaborative Research Award (\$2,000), <i>Brown University Department of Sociology</i>
2019 - 2020	Graduate Fellowship (full funding, 2019-20 academic year), <i>Brown University</i>
2016 - 2018	Governance of Large Mine Permitting Research Fellowship (full funding, 2016-17 and 2017-18 academic years) <ul style="list-style-type: none"> <li>• 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>• 2024: Disaster Research Center Workshop Travel Grant, <i>University of Delaware Disaster Research Center</i></li> <li>• 2021: Dellinger Symposium Travel Award, <i>Superfund Research Program of the NIEHS</i></li> <li>• 2022: GSC Travel Grant, <i>Brown University</i></li> <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> </ul>

### INVITED PRESENTATIONS

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2024	Keynote lecture. What historic maps reveal about racial-environmental inequality in US cities. <i>Center for Urban and Regional Analysis Summer Speaker Series</i> . Ohio State University, Columbus, OH, and Online. Jun. 14.
2024	Invited lecture. Environmental risk and the reorganization of urban inequality in the late 19th and early 20th century. <i>Spatial Structures in the Social Sciences, 2024 Graduate Fellow Lecture</i> . Providence, RI. Apr. 26.
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.

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- 2023 Invited panelist. The environmental dimensions of urban inequality, 1880-1930. *Spatial Data Science Symposium*. Online. Sept. 6.
- 2022 Workshop presentation. 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.
- 2020 Workshop presentation. 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 Siloed Interdisciplinarity?: A Multi-level Computational Text Analysis of Community Resilience Planning. *American Sociological Association*. Montreal, QC. Aug. 9-13.
- 2024 Community resilience planning: What new methods reveal about the formation and transformation of a field. *Disaster Research Center 60<sup>th</sup> Anniversary Workshop*. Newark, DE. May 2-5.
- 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.

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- 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.
- 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.

### WORKSHOPS AND PANELS ORGANIZED

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- 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.

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## TEACHING EXPERIENCE

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### UNIVERSITY TEACHING

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2024	I.E. Business School and Brown University School of Professional Studies / “Society and Culture in the Age of Globalization” / <i>Teaching Associate</i> / Prof. Meghan Kallman
2023	I.E. Business School and Brown University School of Professional Studies / “Society and Culture in the Age of Globalization” / <i>Teaching Associate</i> / Prof. Meghan Kallman
2022	Brown University, Sociology / “Organizations and Society” / <i>Teaching Assistantship</i> / Prof. Rachel Wetts
2022	I.E. Business School and Brown University School of Professional Studies / “Society and Culture in the Age of Globalization” / <i>Teaching Associate</i> / Prof. Meghan Kallman
2020	Brown University, Sociology / “Methods for Interdisciplinary Environmental Research” / <i>Teaching Assistantship</i> / Prof. Rachel Wetts <ul style="list-style-type: none"> <li>Advised individual student research projects from conception to conclusion.</li> </ul>
2018	University of Vermont, Environmental Studies / “Human Ecology, Health, and Sustainability in the Circumpolar Arctic” / Co-taught with Prof. Bindu Panikkar <ul style="list-style-type: none"> <li>Co-taught a seminar-style discussion course on the Arctic.</li> </ul>
2017	University of Vermont, Rubenstein School of Environment and Natural Resources / “Social Processes and the Environment” / <i>Teaching Assistantship</i> / Prof. Cecilia Danks
2017	University of Vermont, Environmental Studies / “Environmental Policy and Activism” / <i>Teaching Assistantship</i> / Prof. Trish O’Kane <ul style="list-style-type: none"> <li>Advised students on conceiving, writing, and publishing individual op-eds in local newspapers.</li> </ul>
2016	University of Vermont, Rubenstein School of Environment and Natural Resources / “Race, Culture, and Natural Resources” / <i>Teaching Assistantship</i> / Prof. Clare Ginger <ul style="list-style-type: none"> <li>Designed discussion curriculum and led weekly discussion sections with entering first-year students.</li> </ul>
Guest lecturing	2024: Brown University, Sociology / “The Geography of Urban Inequality” / <i>Guest Lecturer</i> / Prof. Jennifer Candipan
	2022, 2021: Brown University, Environmental Studies / “Environmental Studies of Pollution” / <i>Guest Lecturer</i> / Prof.s Meredith Hastings and Scott Frickel

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### COMMUNITY TEACHING

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2015 - 2016	Extraordinary Youth Ensemble (Providence, RI) / <i>Administrator and teacher</i> <ul style="list-style-type: none"> <li>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.</li> </ul>
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# Jonathan Tollefson

<b>2014 - 2015</b>	Trinity Academy for the Performing Arts (Providence, RI) / <i>Visiting Artist, Music Instruction</i>
<b>2014 - 2015</b>	Breakthrough Providence (Providence, RI) / <i>Teacher, "Demonstration and Organizing"</i> <ul style="list-style-type: none"> <li>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.</li> </ul>

## SERVICE

<b>2021 - present</b>	Graduate Student Council (Brown University), Department of Sociology representative.
<b>2024</b>	Presider, "Urban Environments" roundtable session, <i>American Sociological Association</i> annual meeting. Montreal, QC. Aug. 9-13.
<b>2023</b>	Poster Judge, <i>International Association of Public Health Scholars</i> annual meeting. Baltimore, MD. Oct. 2-5.
<b>2023</b>	Presider, "Urban Sociology" panel session, <i>American Sociological Association</i> annual meeting. Philadelphia, PA. Aug. 17-21. (Could not attend due to scheduling conflict).
<b>2023</b>	Presider, "Environmental Justice" panel session, <i>Pacific Sociological Association</i> annual meeting. Bellevue, WA. Mar. 30 – Apr. 2.
<b>2022</b>	Evaluated submissions for Rural Sociological Society NRRIG paper award.
<b>Ongoing</b>	Peer review for <i>American Sociological Review</i> ; <i>Public Understanding of Science</i> ; <i>Population and Environment</i> ; <i>Journal of Political Ecology</i> ; <i>Journal of Computational Social Science</i> ; PLOS ONE.

## AFFILIATIONS

### INSTITUTES, LABS, AND WORKING GROUPS

<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)

### PROFESSIONAL MEMBERSHIPS

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

Population Association of America

Rural Sociological Society

Society for the Study of Social Problems



## 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**.*