Jahred Liddie, PhD

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I am an environmental health scientist with interests in drinking water quality, environmental justice, statistics and data science, and public health.

EDUCATION

Harvard T.H. Chan School of Public Health 2021-2025
Ph.D. in Population Health Sciences
Dissertation: *Trends and Disparities in Contamination by Per- and Polyfluoroalkyl Substances in U.S. Community Water Systems*
Adviser: Prof. Elsie Sunderland

Harvard T.H. Chan School of Public Health 2019-2021
S.M. in Environmental Health

Harvard College 2012-2016
A.B. in Environmental Sciences Engineering
Cum laude, with departmental honors

EXPERIENCE

George Washington University - Milken Institute School of Public Health Aug. 2025+
Postdoctoral Associate Washington, DC
Water, Health, and Opportunity Lab (led by Prof. Xindi Hu)

- Leading research projects on: (1) the connections between drinking water quality regulations and health, (2) extreme events and health, (3) novel, nationwide prediction models for PFAS in groundwater, and (4) the development of national sociodemographic estimates of residents served by community water systems
- Mentoring undergrad, master's, and early-stage PhD students on related research projects

Harvard University Feb. 2025 - current
Postdoctoral Fellow Cambridge, MA

- Led research projects on water system infrastructure disparities, PFAS drinking water occurrence, and temporal trends
- Mentoring master's and early-stage PhD students on related research projects

Environmental Health and Engineering, Inc. Oct. 2023 - Nov. 2023
Part-time/Short-term Consultant Newton, MA

- Assistant manager (team of 8) for data entry project for PFAS concentrations in well water from public water systems nationwide
- Evaluated data collected for quality assurance/quality control and completeness and provided advice for data collection forms to clients

Silent Spring Institute Apr. 2020 - Dec. 2020
Summer Research Fellow Newton, MA

- Scraped, analyzed, and graphed time-series well water data on PFAS to assess historical exposures
- Gather, analyzed, and presented associations between sociodemographic factors and unregulated drinking water contaminants

Sphera (formerly thinkstep) 2016-2019
Sustainability Consultant Boston, MA

- Modeled environmental life cycles of building and construction products for comparison and industry associations to notify consumers and to establish industry-average benchmarks
- Assisted in implementing sustainability data collection software systems for clients
- Managed a $40k project to create multiple Environmental Production Declarations and a life cycle assessment report

The Clorox Company 2016
Product Safety Intern Pleasanton, CA

Harvard University 2015-2016
Research Assistant Cambridge, MA
Sunderland Biogeochemistry of Global Contaminants Lab

World Bank 2015
Water Security Intern Washington, DC

University of Alabama 2014
Research Assistant Tuscaloosa, AL
Bara Research Group

PEER-REVIEWED PUBLICATIONS

1. **Liddie JM**, Dai MQ, Adamkiewicz G, Sunderland EM. Characteristics of "Early Adopters" of Water Treatment Capacity Needed to Remove PFAS and other Emerging Contaminants in the United States. Accepted in *Environmental Science: Processes & Impacts*. Earlier preprint available here.

2. Gribble MO, Bennett BJ, **Liddie JM**, *et al.* Global Epidemiology of Paralytic Shellfish Poisoning: A Systematic Search Literature Review. *The Lancet Planetary Health* 2025, https://doi.org/10.1016/j.lanplh.2025.05.001

3. **Liddie JM**, Dai MQ, Hu XC, Sunderland EM. A Call for a Unified Database to Address Exposure Disparities in the United States. *Wiley Interdisciplinary Reviews - Water* 2025, 12 (4), e70033. https://doi.org/10.1002/wat2.70033

4. Maruzzo AJ, Hernandez AB, Swartz CH, **Liddie JM**, Schaider LA. Socioeconomic Disparities in Exposures to PFAS and Other Unregulated Industrial Drinking Water Contaminants in U.S. Public Water Systems. *Environmental Health Perspectives* 2025, 133 (1), 017002. https://doi.org/10.1289/EHP14721

5. **Liddie JM**, Bind MA, Karra M, Sunderland EM. County-Level Associations between Drinking Water PFAS Contamination and COVID-19 Mortality in the United States. *Journal of Exposure Science and Environmental Epidemiology* 2024 Oct 6;1–8. https://doi.org/10.1038/s41370-024-00723-5

6. **Liddie JM**, Vieira CLZ, Coull BA, Sparrow D, Koutrakis P, Weisskopf MG. Associations between solar and geomagnetic activity and cognitive function in the Normative Aging study. *Environment International* 2024 May 1;187:108666. https://doi.org/10.1016/j.envint.2024.108666

7. **Liddie JM**, Schaider LA, Sunderland EM. Sociodemographic Factors Are Associated with the Abundance of PFAS Sources and Detection in U.S. Community Water Systems. *Environmental Science and Technology* 2023 May 15. https://doi.org/10.1021/acs.est.2c07255

8. Azevedo A, **Liddie J**, Liu J, Schiff JE, Adamkiewicz G, Hart JE. Effects of portable air cleaners and A/C unit fans on classroom concentrations of particulate matter in a non-urban elementary school. *PLOS ONE* 2022 Dec 1;17(12):e0278046. https://doi.org/10.1371/journal.pone.0278046

9. Adamkiewicz G, **Liddie J**, Gaffin JM. The Respiratory Risks of Ambient/Outdoor Air Pollution. *Clinics in Chest Medicine* 2020 Dec 1;41(4):809–24. https://pmc.ncbi.nlm.nih.gov/articles/PMC7665094/

10. Wildnauer M, Mulholland E, **Liddie J**. Life Cycle Assessment of Asphalt Binder. TRID Database 2019. https://trid.trb.org/view/1645171

11. Hu XC, Tokranov AK, **Liddie J**, Zhang X, Grandjean P, Hart JE, *et al.* Tap Water Contributions to Plasma Concentrations of Poly-and Perfluoroalkyl Substances (PFAS) in a Nationwide Prospective Cohort of US Women. *Environmental Health Perspectives* 2019;127(6):067006. https://doi.org/10.1289/EHP4093

12. Scalfani VF, Williams AJ, Tkachenko V, Karapetyan K, Pshenichnov A, Hanson RM, **Liddie J**, and Bara, JE. Programmatic conversion of crystal structures into 3D printable files using Jmol. *Journal of Cheminformatics* 2016 Nov 23;8(1):66. https://doi.org/10.1186/s13321-016-0181-z

DATASETS

1. **Liddie JM**. PFAS Statewide Sampling Dataset. Harvard Dataverse; 2023. Available here.

Replication datasets and code

1. **Liddie JM**, Bind M-A, Karra M, Sunderland EM. Replication Data for: County-Level Associations between Drinking Water PFAS Contamination and COVID-19 Mortality in the United States. Harvard Dataverse, V1, 2024. https://doi.org/10.7910/DVN/PN0RI5. Replication code available on Github.

2. **Liddie JM**; Schaider L, Sunderland EM. Replication Data for: Sociodemographic Factors Are Associated with the Abundance of PFAS Sources and Detection in U.S. Community Water Systems. Harvard Dataverse, V1, 2023. https://doi.org/10.7910/DVN/0C06MR. Replication code available on Github.

WHITE PAPERS, PUBLIC COMMENTS, AND SELECTED MEDIA

1. **Liddie J**, Schaider L, Sunderland S. PFAS Statewide Sampling Interactive Map. Last update: 1/3/2024. Available here.

2. Frueh L, Chan M, **Liddie J**, James-Todd T, Adamkiewicz G. Environmental Racism in Greater Boston: an Interactive Web Resource. Harvard Chan NIEHS Center for Environmental Health; 2021. Available here.

3. Adamkiewicz G, Tripathy S, **Liddie J**, Woolf AD, Spence M. Poly- and Perfluoroalkyl Substances (PFAS) - Emerging Pollutants in New England: A White Paper. 2020. Available here.

4. Levin R, Schwartz J, and **Liddie J**. Comment on the EPA Proposed Rule: Strengthening Transparency in Regulatory Science.

SELECT MEDIA COVERAGE

"Fighting forever chemicals." Harvard T.H. Chan School of Public Health. 5/1/2024.

"Living in a Racially Segregated Neighborhood Linked to a Shorter Lifespan." *Health*. 8/2/2023.

"PFAS and Environmental Justice." The Environmental Justice Lab podcast. Listen here. 6/28/2023.

"Forever chemicals are disproportionately polluting Black and Hispanic neighborhoods." *The Verge*. 5/16/2023.

"Communities of color disproportionately exposed to PFAS pollution in drinking water." Harvard T.H. Chan School of Public Health. 5/15/2023.

"Black and Latino communities more likely to have harmful PFA levels in water: Study." *ABC News*. 5/15/2023.

"Communities of color disproportionately exposed to PFAS in drinking water, study says." *Axios*. 5/15/2023.

INVITED PRESENTATIONS

Guest lecture, Georgetown University undergraduate course on environmental justice, 2026. *Washington, DC, USA*.

Mary Ann Swetland Center for Environmental Health (Case Western Reserve University), "Sociodemographic Composition and Barriers to Advancements in Water Treatment in U.S. Commuinty Water Systems", online seminar, 2025. *Virtual*.

National Sea Grant Program - PFAS Community of Practice Webinar Series, "Disparities in Contamination by PFAS in U.S. Community Water Systems: Current Understanding, Data Gaps, and Redress", online webinar, 2025. *Virtual*.

Environmental Law Institute, "Community Lawyering for Environmental Justice Part 10: Environmental Justice Implications of PFAS", online webinar, 2024. *Virtual*. Available here and a transcript of the panel was published in the *Environmental Law Reporter* here.

Presenter and panelist, National PFAS Conference, 2024. *Ann Arbor, MI, USA*.

Emerging Contaminants in the Environment Conference, "Who is most exposed to PFAS in drinking water? Current insights and data gaps", invited keynote speaker, 2024. *Virtual*.

American Association for the Advancement of Science (Center for Scientific Evidence in Public Issues), "PFAS, Sociodemographic Factors and Implications for Communities and Environmental Justice", panelist, 2023. *Virtual*.

NAACP Legal Defense Fund (Thurgood Marshall Institute), panelist, 2023. *New York City, NY, USA*.

National PFAS Contamination Coalition, online meeting, 2023. *Virtual*.

US EPA Federal-State Toxicology Risk Analysis Committee, webinar presentation, 2023. *Virtual*. Summary available here.

University of North Carolina at Chapel Hill, Center for Public Engagement with Science, IDEA Learners Meeting, "Designing classroom lessons on the human health effects of PFAS exposure," 2023. *Chapel Hill, NC, USA (virtual)*.

California Department of Public Health, Data Group Meeting, 2023. *Sacramento, CA, USA (virtual)*.

CONFERENCE PRESENTATIONS

Oral presentation and session convener/chair, American Geophysical Union, 2025. *New Orleans, LA, USA*.

Oral presentation (presented by Aaron Maruzzo), Joint Annual Meeting of the International Society of Exposure Science and the International Society for Environmental Epidemiology, 2025. *Atlanta, GA, USA*.

Poster presentation, Harvard Climate Connect Symposium, 2025. *Cambridge, MA, USA*.

Oral presentation, International Society of Exposure Science, 2024. *Montréal, Canada*.

Poster presentation (presented by Prof. Matthew Gribble), International Society of Environmental Epidemiology, 2024. *Santiago, Chile*.

Oral presentation (accepted), International Society of Environmental Epidemiology, 2024. *Santiago, Chile*.

Poster, National PFAS Conference, 2024. *Ann Arbor, MI, USA*.

Poster (presented by Katherine Yang), American Geophysical Union, 2023. *San Francisco, CA, USA*.

Oral presentation, International Society of Exposure Science, 2023. *Chicago, IL, USA*.

Oral presentation (accepted), International Society of Environmental Epidemiology - North American Chapter, 2023. *Corvallis, OR, USA*.

Poster discussion, International Society of Environmental Epidemiology, 2022. *Athens, Greece*.

Symposium presentation (presented by Dr. Laurel Schaider), International Society of Environmental Epidemiology, 2022. *Athens, Greece*.

Oral presentation (accepted), International Society of Exposure Science, 2022. *Lisbon, Portugal*.

Poster, 3rd National PFAS Meeting: Environmental Justice and Scientific Discovery, North Carolina State University Center for Environmental and Health Effects of PFAS and affiliates, 2022. *Wilmington, NC, USA*.

Poster, Science of PFAS Conference: Public Health and the Environment. Northeast Waste Management Officials Association and affiliates, 2022. *Marlborough, MA, USA*.

Moderator, Session: "Human exposure to PFAS, a threat for our health." FLUOROS Global Conference, University of Rhode Island STEEP Superfund Research Program and affiliates, 2021. *Providence, RI, USA (virtual)*.

TEACHING AND MENTORING

Teaching

Teaching Assistant, *Harvard College*, *Cambridge, MA*. ESE 161: Applied Environmental Toxicology (2024-2025).

Teaching Assistant, *Harvard T.H. Chan School of Public Health, Boston, MA*. EH 510: Fundamentals in Human Environmental Exposure Assessment (2021-2023).

Teaching Assistant, *Harvard T.H. Chan School of Public Health, Boston, MA*. RDS 500: Risk Assessment (2023).

Teaching Assistant, *Harvard Graduate School of Education, Cambridge, MA*. EDU S022: Introduction to Statistical Computing and Data Science in Education (2023).

Teaching Assistant, *Harvard College, Cambridge, MA*. ES 6: Introduction to Environmental Science and Engineering (2016).

Mentoring

2024+: Anton Roche, Harvard T.H. Chan School of Public Health: research assistant and Master of Science student.

2023-2024: Layla Seaver, Harvard College: senior thesis and capstone project ("Addressing Forever Chemicals: An Algorithm for PFAS Prediction Modeling and Filter Selection for Private Well-Users"). Recipient of the Dean's Award for Outstanding Engineering Project.

2023: Katherine Yang, Williams College: research assistant in the Summer Program at Harvard in Earth and Environmental Sciences.

GRANTS, FELLOWSHIPS, AND HONORS

National Institute of Environmental Health Sciences T32 trainee (T32ES007069; 2021-2024).

Travel award from the Institute for Quantitative Social Science (2024).

Travel award, *National PFAS Conference* (2024).

Travel award, *International Society of Environmental Epidemiology - North America* (2023).

Runner-up, ArcGIS StoryMaps Competition (Humanitarian and Social Justice category). *Esri* (2022).

Skaff Family Environmental Graduate Fellowship, *Harvard University* (2021).

Pforzheimer Fellow, *Harvard T.H. Chan School of Public Health* (tuition, stipend, federal work study - 2019-2021 [approx. $124,000]).

APHA Environment Section Student Travel Scholarship (2019).

ACADEMIC AND PROFESSIONAL AFFILIATIONS

The American Geophysical Union (2023, 2025)

The Institute for Quantitative Social Science at Harvard (2024-2025)

International Society for Environmental Epidemiology (2022-2023)

REFEREE ACTIVITIES

Environmental Health (2024-2026), *Environment International* (2024-2026), *Environmental Science & Technology* (2024-2025), *Environmental Science & Technology Letters* (2023), *Environmental Science & Technology Water* (2024-2026), *Environmental Science: Processes & Impacts* (2025), *GeoHealth* (2025-2026), *Journal of Exposure Science & Environmental Epidemiology* (2024), *Science of the Total Environment* (2025), *Scientific Reports* (2025)

WORKSHOPS AND TRAININGS

2025: Causal Inference Workshop (hosted by Arnold Ventures), *Washington, D.C.*

2025: Electronic Medical Records Boot Camp: Skills for Health and Research Professionals (Columbia Mailman School of Public Health), *virtual.*

2021: Environmental Justice Boot Camp: Skills for Health and Research Professionals (Columbia Mailman School of Public Health), *virtual.*

SKILLS

Topics: Environmental exposure assessment; environmental epidemiology; applied statistics, data science, and epidemiologic methods (regression modeling, machine learning, causal inference); data wrangling, processing, and sharing; scientific writing; data visualization and science communication; project management

Programming and GIS: R, RMD, STATA, ArcGIS

Life cycle assessment and sustainability data management: GaBi, SoFi

Data visualization: *TidyTuesday* portfolio available here

Project and knowledge management: Confluence, Jira

Other skills: Microsoft Office suite, LaTeX and applications, Adobe Photoshop

Languages: English (native), Spanish (intermediate)