

Erica D. Walker CV
Updated: 10 9 2024

ERICA D. WALKER

RGSS Assistant Professor of Epidemiology

Department of Epidemiology

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Social media: @community_noise (twitter), communitynoiselab (instagram) @noiseandthecity (facebook)

EDUCATION

1997-2001	Simmons University	BS, Math and Economics
2009-2012	Tufts University	MS, Env Economics/Ubn Planning
2011-2017	Harvard T.H. Chan School of Public Health	ScD, Environmental Health

APPOINTMENTS AND POSITIONS

2012-2017	<i>Adjunct Professor</i> Department of Mathematics and Statistics, Simmons University
2012-2017	<i>Adjunct Professor</i> Department of Mathematics and Statistics, Emmanuel College
2017-2018	<i>Postdoctoral Research Fellow</i> Department of Community Health and Medicine, UCONN Health
2017-2018	<i>Visiting Scientist</i> DUSP and Senseable City Lab, Massachusetts Institute of Technology
2018-2021	<i>Postdoctoral Research Fellow</i> Department of Environmental Health, Boston University School of Public Health
2017- Present	<i>Part-Time Lecturer</i> Urban and Environmental Policy and Planning Tufts University
2021-Present	<i>RGSS Assistant Professor</i> Department of Epidemiology, Brown University School of Public Health

AWARDS AND HONORS

2001	Summa Cum Laude, Simmons University
2021 - Present	NIH Loan Repayment Program

PUBLICATIONS

Publication Summary

Type of Article	Total	First Author	Senior Author
Peer-Reviewed	16	9	4
Non-Reviewed	0	0	0
Letters/Commentary	0	0	0

Walker, E.D., Lee, N. Franzen, Nica, C., Barnes, A., Graham, B., Martin, K. "Amplifying Concerns: An Exploration of Community Noise Levels in Rural Communities Impacted by Wood Pellet Production." Environmental Challenges, 2024, pp. 101024.

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Vasil, Taylor-Marie, Fleury, Elvira S., **Walker, Erica D.**, Kuiper, Jordan R., Buckley, Jessie P., Cecil, Kim M., Chen, Aimin, Kalkwarf, Heidi J., Lanphear, Bruce P., Yolton, Kimberly, Braun, Joseph M. "Associations of pre- and postnatal per- and polyfluoroalkyl substance exposure with adolescents' eating behaviors." *Environmental Epidemiology*, vol. 8, no. 5, 2024, pp. e343.

Wang, A. Testi, I., Paul, S., Mora, S., **Walker, E.D.**, Nyhan, M., Durate, F., Santi, P., Ratti, C. Big mobility data reveals hyperlocal air pollution exposure disparities in the Bronx, New York City. (2024). *Nature Cities* (in press).

Franzen Lee N., **Walker, E.D.** (2024). Research in action -tourism and its impacts on the environmental soundscape- A community-initiated pilot study. *Environmental Impact Assessment Review*. In Press: <https://www.sciencedirect.com/science/article/abs/pii/S0195925524000374>.

Kim, M., De Vito, R., Duarte, F., Tieskens K., Luna M., Salazar Miranda A., Mazzarello M., Showalter Otts S., Etzel C., Burks, S., Crossley, K., Franzen Lee N., **Walker, E.D.** (2023). Mississippi Boiling: Boil Water Alerts and their Impact on the Unexcused Absence Rate in Public Schools in Jackson, Mississippi. *Nature Water*. In Press: <https://www.nature.com/articles/s44221-023-00062-z>.

Manz, K. E., Dodson, R. E., Liu, Y., Scheidl, L., Burks, S., Dunn, F., **Walker, E.D.** ... & Braun, J. M. (2023). Effects of Corsi-Rosenthal boxes on indoor air contaminants: non-targeted analysis using high resolution mass spectrometry. *Journal of Exposure Science & Environmental Epidemiology*, 1-11.

Dodson, R. E., Manz, K. E., Burks, S. R., Gairola, R., Lee, N. F., Liu, Y., **Walker E.D.**, ... & Braun, J. M. (2022). Does Using Corsi–Rosenthal Boxes to Mitigate COVID-19 Transmission Also Reduce Indoor Air Concentrations of PFAS and Phthalates? *Environmental Science & Technology*.

Nina FL, Luna M, Levy J, **Walker E.D.** Spatial and Social Determinants of Community Loudness Perception: An Elastic Net Approach. Submitted to *Applied Acoustics* (in press).

Walker E.D., Franzen NL, Scammell ML, Lane KJ, Adamkiewicz G, Levy J. Sound Levels in an Environmental Justice Community before and During a Global Pandemic (2022). *Environmental Research*. <https://doi.org/10.1016/j.envres.2021.111353>).

Walker E.D., Franzen NL, Tieskens K, Walker LW, Celestine R, Smith J, Jay J, Levy J. Illegal Firework Activity, Environmental Sound Levels, and its Impacts on Community Noise Perception and Health (2022). *Cities and Health*. <https://doi.org/10.1080/23748834.2021.1928857>

Walker E.D., Franzen NL, Cavallari JM, Levy J. Adaptive reuse and its impacts on the environmental soundscape: The case of Fenway (May 2021). *Cities and Health*. <https://doi.org/10.1080/23748834.2021.1904356>).

Cavallari JM, Garza JL, DiFrancesco J, Dugan AG, **Walker E.D.** (2020) Development and application of a noise-hazard scheme for road maintainers. *Am J Ind Med.*; 63(5):429-434. PMID: 31953973.

Walker E.D., Hart JE, Koutrakis P, Cavallari JM, Luna M, Laden F (2017). Spatial-Temporal Determinants of A-weighted and Frequency Specific Sound Levels—An Elastic Net Approach.

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Environmental Research, 159, 491-499.

Walker E.D., Hart JE, Garshick E, Cavallari JM, Davis ME, Smith TJ, Laden F (2017). The Characterization of Polycyclic Aromatic Hydrocarbons in Northeastern US Trucking Terminals. *Annals of Work Exposures and Health*, 61(7), 844-853.

Walker E.D., Banks J (2017). Characteristics of Lawn and Garden Equipment Sound: A Community Pilot Study. *Journal of Environmental and Toxicological Studies*, 1(1).

Walker E.D., Brammer, A, Cherniack, MG, Laden, F, & Cavallari, JM (2016). Cardiovascular and stress responses to short-term noise exposures—A panel study in healthy males. *Environmental Research*, 150, 391-397.

In Submission

Walker, ED, Franzen-Lee N., Nica, C., Barnes, A., Graham, B., Martin, K (2024). Notes from the Field: Preliminary findings from a community-engaged air pollution campaign in a rural Mississippi city impacted by wood pellet production. Under review at journal *Environmental Justice*.

Conference Proceedings

Dharsmi, I., Walker, L., Singleton, H., Walker ED (2024). Enforcement against vehicle noise from aftermarket parts in the United States: a qualitative analysis of stakeholders' opinions. *NOISE-CON 2024 Conference Proceedings*.

Franzen-Lee, N. and **Walker ED**. Exploring the impact of PM2.5 on lung function trends among Black adolescents in Jackson, Mississippi, *SER 2024*.

Walker ED and Banks J (2016). Two-Stroke Engines in Landscape Maintenance: A Growing Public Health Problem. *NOISE-CON 2016 Conference Proceedings*.

PROFESSIONAL ORGANIZATIONS

2012- Present Member, National Acoustical Society of America

TEACHING

2011 - 2012 Course: Economics for Urban and Environmental Policy
UEP, Tufts University

Role: Teaching Assistant

2012-2013 Course: Quantitative Methods for Urban and Environmental Policy
UEP, Tufts University

Role: Teaching Assistant

2016 Course: Environmental Epidemiology
Department of Environmental Health, Harvard T.H. Chan School of Public Health
Role: Teaching Assistant

2016 Course: Control of Noise and Vibration
Department of Environmental Health, Harvard T.H. Chan School of Public Health
Role: Teaching Assistant

2012 - 2021 Course: Introduction to Statistics
Department of Mathematics, Emmanuel College

2012 - 2021 Role: Adjunct Professor
 Course: Introduction to Calculus
 Department of Mathematics, Emmanuel College

2012 - 2021 Role: Adjunct Professor
 Course: College Algebra
 Department of Mathematics, Emmanuel College

2012 - 2021 Role: Adjunct Professor
 Course: Introduction to Statistics
 Department of Mathematics, Simmons University

2017- Course: Economics for Urban and Environmental Policy
 UEP, Tufts University
 Role: Part-time Lecturer

2017- Course: Quantitative Methods for Urban and Environmental Policy
 UEP, Tufts University
 Role: Part-time Lecturer

2017- Course: Public Health and the Built Environment
 UEP, Tufts University
 Role: Part-time Lecturer

2022- Course: Environmental Exposure Assessments in Context
 Department of Epidemiology, Brown University
 Role: Assistant Professor

2023- Course: Topics in Environmental and Occupational Epidemiology
 Department of Epidemiology, Brown University
 Role: Assistant Professor

2024- Course: PHP1725 Rural Public Health
 Department of Epidemiology, Brown University
 Role: Assistant Professor

SERVICE AND ACTIVITIES

Departmental

2021 Member of PhD Admissions Committee
2021 MPH Core Advisor

University

2023 - Member of the Community Engagement Council Health & Medicine Committee
2023 - Founding Faculty Advisor of the Environmental Health Club
2023 - Faculty Advisor for Rural @Brown

Journal Refereeing

Environmental Health, Environmental Health Perspectives, JESSE, Noise and Health, Cities and Health,

Advisory Boards

2021 - 2022 Research Advisory Board Member, Conservation Law Foundation
2024 Tufts University Public Health Visioning Think Tank

Expert Panels and Reviews

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2023 - 2026 Committee Member on the National Academy of Sciences Panel Noise and Vibration Committee

Grant Review

2023 Harvard School of Public Health NIEHS Center, ad hoc reviewer
2023 NIH ZES1 BWD-S (KS) [Career Development in K Applications]
2024 NIEHS Time-Sensitive R21: NIEHS REVIEW ZES1 LWJ-K (TS) 2

ADVISING AND MENTORING

*Students received school-wide awards for their work.

Doctoral

Chair and Advisor:

- Nina Franzen-Lee, 2021 - Present, Urban Echoes: Deciphering Noise Exposure's Impact on Children's Health through Advanced Spatial-Temporal Analysis
- Arlencia Barnes, 2023 – Present, Air Pollution Exposures in Wood Pellet Impacted Communities (Jackson State University).

Master's

Primary Advisor:

- Shaunessey Burks*, MPH 2023: Indoor Air Intervention in Home-based Daycare Centers in Providence, Rhode Island; Present Appointment: Intel Corporation.
- Del Rose Hooker*, MPH 2023: Socioeconomic Patterns in Drinking Water Quality in Greater Jackson, Mississippi; Present Appointment: RIDOH.
- Alexandra Johnson, MPH 2023: Light. Blight. Sight. Billboard Prevalence and Quality of Messaging by Vulnerability Index in Jackson, Mississippi; Present Appointment: Results for America.
- Marcus Henry, MPH 2023: The Impact of Contextual and Non-contextual Noise and Anxiety on Brain Signaling; Present Appointment: Unknown.
- Rosemelly Jimenez Medal*, MPH 2024: Honoring the Journey: An Epidemiologic Analysis of Hearing Health and Hygiene on Short Haul Truck Drivers in California's Vibrant Transport Network; Present Appointment: Unknown.
- Sage Lefebvre, MPH 2025: Health implications of increased air pollution and noise exposure from wood-pellet manufacturing in Mississippi; A look at how renewable-energy industrial sources impact health in a time of climate crisis.
- Laini Tuboku-Metzger. MPH 2025: Menstrual Health in Adolescents in Mississippi;
- Maaty Doha, MPH 2025: The Impact of Urban Soundscapes on South Asian, Middle Eastern, and Northern African Immigrants in Providence, Rhode Island and Boston, Massachusetts.

Undergraduates

- Imran Dharamsi*, BA 2024, Enforcement against vehicle noise from aftermarket parts in the United States: a qualitative analysis of stakeholders' opinions
- Chelsea Wang*, BA 2024, Noise Exposure in a Clinical Setting
- Juliet Fang, BA 2026, Community Exposures in a Community Impacted by Gun Firing Activity
- Samantha Rosario, BA 2026, Community Noise Exposure and Live Concerts
- Punnavala Alam, BA 2026, Noise Exposure in Dhâka, Bangladesh

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GRANT FUNDING

Current Funding as PI or MPI

Title: Wood Pellet Emissions and Children's Environmental Health in Mississippi

Source and Project Number: NIEHS, R01 10944472 (Awarded)

Role: Principal Investigator

Years: 2024 – 2029

Amount: \$5.8 million

Title: IBES Catalyst Research Award - Trusting the Source: How Intergenerational Environmental Education Empowers Community

Source and Project Number: IBES, Brown University

Role: Principal Investigator

Years: 2024 – 2026

Amount: \$29,100

Title: Building a flexible Framework for solution-oriented Community-engaged research into the health impacts of illegal dumping in three Mississippi cities

Source and Project Number: RWJF (#80918)

Role: Principal Investigator

Years: 2023 – 2026

Amount: \$1.1 million

Title: Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Concentrations in Jackson, Mississippi and Children's Health

Source and Project Number: OVPR Seed Award, Brown University

Role: Principal Investigator

Years: 2023 – 2025

Amount: \$100,000

Title: Emerging Issues Research - Walker

Source and Project Number: Brown University

Role: Principal Investigator

Years: 2023 – 2025

Amount: \$10,000

Title: Community Noise Lab: A targeted, contextual, community, and citizen-driven exposure assessment in the Forgotten Corridor

Source and Project Number: RWJF (#78725)

Role: Principal Investigator

Years: 2021 – 2024

Amount: \$690,328

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Funding Under Review

Title: Preventing Childhood Obesity in Vulnerable Rural Communities, One Good Neighbor at a Time

Source and Project Number: RWJF (#137442)

Role: Principal Investigator

Years: 2025- 2024

Amount: \$4 million

Completed Funding

Title: Demonstrating the power of citizen-driven research to effect tangible change in addressing the health impact of community noise

Source and Project Number: RWJF (#75557)

Role: Principal Investigator

Years: 2018 - 2021

Amount: \$411,000

PRESS

“Meeting Updates Noise Study, Urges Sox ‘Good Neighbor’ Pact.” *Fenway News*. January, 2021. “Deb Haaland Promises Environmental Justice as Secretary of the Interior.” *Well + Good*. March 2021.

“No More Noise: Turning Down The Volume on Cities - Part 1” *Wall Street Journal*. June 2021.

“Nature’s Big Year” *The Canadian Broadcast Broadcasting Corporation*. September 2021.

“Hey Boston, Shut Up Already!” *Boston Magazine*. November 2021.

“Coming to Terms with Noise” *Boston Public Radio*. November 2021.

“If all the vehicles in the world were to convert to electric, would it be quieter?” *The Conversationalist*. August 1, 2022.

“Nina Lee: Investigating the impact of noise pollution on children’s health outcomes.” *News from Brown*. August 30, 2022.

“Jackson native back home to study water for Brown University.” *The Clarion Ledger*. September 29, 2022

“Hoping for a quieter city, residents look to Brown research lab to analyze noise pollution in Providence.” *News from Brown*. December 12, 2022.

“Brown University Students Examine How Noise Pollution Disproportionately Affects Some Providence Neighborhoods.” *Eco ’RI News*. December 11, 2022.

“Noise Neighbors Can be Hazardous to Rhode Islander’s Health.” *The Providence Journal*. December, 2022.

“Grads Give Back.” *Simpson County News*. Jan. 2023.

“Trouble in the wood basket.” *Mississippi Today*. April 2024.

“Here’s how Providence’s Mayor is making the case for noise cameras.” *Providence Journal*. May 2024.

“Low-frequency Noise Is Pervasive. Does That Matter?” *Undark*, April 2024

“Equal access from all sides” *Road Trip Nation, PBS* April 29, 2024

“Motorbikes, Nightclubs, Tricked-Out Cars: Is Rhode Island’s Capital Too Loud?” *New York Times*. June 2024.

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For current mentions in press, visit https://twitter.com/community_noise