

# Abas Shkempi

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[ashkempi@umich.edu](mailto:ashkempi@umich.edu) | +1 (586) 707-0139

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## Education

**PhD Environmental Health Science**, University of Michigan, MI, 2023 - *Present*

**M.S. Environmental Health Sciences**, University of Michigan, MI, 2023

Concentration in Industrial Hygiene

Thesis Title: “Cumulative Occupational and Environmental Injustices in Michigan”

**B.S. Statistics**, University of Michigan, MI, 2020

Minor in Environmental Sciences

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## Experience

<b>Dates</b>	<b>Organization</b>
2019 – Present	<b>Research Associate II, University of Michigan, Ann Arbor, MI</b> Environmental Health Sciences, School of Public Health PI – Dr. Richard Neitzel
2023 – Present	<b>Research Assistant, University of Michigan, Ann Arbor, MI</b> Environmental Health Sciences, School of Public Health PI – Dr. Jackie Goodrich
2022 – 2023	<b>Research Assistant, University of Michigan, Ann Arbor, MI</b> Environmental Health Sciences, School of Public Health PI – Dr. Aurora Le
2020	<b>Research Assistant, University of Michigan, Ann Arbor, MI</b> Institute for Social Research (ISR), Social Science Data Analysis Network Director – William Frey
2020	<b>Enumerator, United States Census Bureau, Ann Arbor, MI</b>
2019 – 2020	<b>Data Analyst, University of Michigan, Ann Arbor, MI</b> President’s Commission on Carbon Neutrality Lead – Jonathan Levine

<b>Dates</b>	<b>Organization</b>
2019	<b>Research Assistant, University of Michigan, Kalasin, Thailand</b> MCubed Scholars Program PIs – Richard Neitzel, Jesse Austin-Breneman, Achyuta Adhvaryu, and Kowit Nambunmee
2018 – 2019	<b>Research Assistant, University of Michigan, Ann Arbor, MI</b> Environmental Health Sciences, School of Public Health Advisors – Aubrey Arain and Richard Neitzel
2018	<b>Data Entry, University of Michigan, Ann Arbor, MI</b> Center for Human Growth and Development PI – Niko Kaciroti

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## Research Support

<b>UM Anti-Racism Graduate Research Grant</b>	6/22 – 6/23
Role: PI, <b>A Shkempi</b>	\$5,000
National Center for Institutional Diversity (NCID)	
Title: “The color of environmental racism: environmental and occupational injustices in Michigan stemming from historical redlining.”	
<b>BCSP Research-Master’s Thesis Grant</b>	6/22 – 6/23
Role: PI, <b>A Shkempi</b>	\$5,000
Board of Certified Safety Professionals (BCSP)	
Title: “Misperception of noise exposure at work among miners without a hearing loss.”	
<b>NHCA Student Research Award</b>	2/22 – 2/23
Role: PI, <b>A Shkempi</b>	\$2,000
National Hearing Conservation Association (NHCA)	
Title: “Misperception of noise exposure at work among miners without a hearing loss.”	

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## Bibliography

 <https://orcid.org/0000-0002-5398-861X>

**Summary.** 10 publications | 7 first author

Peer-Reviewed

**Shkempi A**, Smith LM, Neitzel RL (2023). Risk perception or hazard perception? Examining misperceptions of miners’ personal exposures to noise. *Int J Hygiene and Env Hlth.* **under review**

10. **Shkempi A**, Smith LM, Neitzel RL (2023). Linking environmental injustices in Detroit, MI to institutional racial segregation through historical federal redlining. *J Expo Sci Environ Epidemiol*. <https://doi.org/10.1038/s41370-022-00512-y>
9. **Shkempi A**, Le AB, Neitzel RL (2023). Associations between poorer mental health with work-related effort, reward, and overcommitment among a sample of formal US solid waste workers. *Safety & Health at Work*. <https://doi.org/10.1016/j.shaw.2023.01.004>
8. Le AB, **Shkempi A**, Tadee A, Sturgis AC, Gibbs SG, Neitzel RL (2023). Characterization of perceived biohazard exposures, personal protective equipment, and training resources among a sample of formal U.S. solid waste workers: A pilot study. *J Occ & Env Hygiene*. <https://doi.org/10.1080/15459624.2023.2179060>
7. **Shkempi A**, Smith LM, Bregg S, Neitzel RL (2022). Evaluating occupational noise exposure as a contributor to injury risk among miners. *Ann Work Exp Health*. 66(9): 1151-1161. <https://doi.org/10.1093/annweh/wxac059>. **Journal Cover and Editor's Choice**
6. **Shkempi A**, Smith LM, Le A, Neitzel RL (2022). Noise exposure and mental workload: evaluating the role of multiple noise exposure metrics among surface miners in the US Midwest. *Applied Ergonomics*. 103: 772. <https://doi.org/10.1016/j.apergo.2022.103772>
5. Le AB, **Shkempi A**, Sturgis AC, Tadee A, Gibbs SG, Neitzel RL (2022). Effort–Reward Imbalance among a Sample of Formal US Solid Waste Workers. *Inter J Env Res & Public Health*. 19(11): 6791. <https://doi.org/10.3390/ijerph19116791>
4. Roberts B, **Shkempi A**, Smith LM, Neitzel RL (2022). Beware the Grizzlyman: A comparison of job and industry-based noise exposure estimates using manual coding and the NIOSH NIOCCS System. *J Occ & Env Hygiene*. 19(7): 437-447. <https://doi.org/10.1080/15459624.2022.2076860>
3. **Shkempi A**, Smith LM, Roberts B, Neitzel RL (2022). Fraction of acute work-related injuries attributable to hazardous occupational noise across the USA in 2019. *Occ & Env Medicine*. 79: 304-307. <http://dx.doi.org/10.1136/oemed-2021-107906>
2. **Shkempi A**, Smith LM, Neitzel RL (2022). Retrospective assessment of the association between noise exposure and nonfatal and fatal injury rates among miners in the United States from 1983 to 2014. *Am J Ind Med*. 65: 30- 40. doi:10.1002/ajim.23305
1. **Shkempi A**, Nambunmee K, Jindaphong S, Parra-Giordano D, Yohannessen K, Ruiz-Rudolph P, Neitzel RL, Arain A (2021). Work Task Association with Lead Urine and Blood Concentrations in Informal Electronic Waste Recyclers in Thailand and Chile. *Inter J Env Res & Public Health*. 18(20): 10580. <https://doi.org/10.3390/ijerph182010580>

#### In preparation

1. **Shkempi A**, Zelner J, Park SK, Neitzel RL. Racial/ethnic and income disparities in cumulative occupational and environmental health impacts in Michigan. Preparing for *American Journal of Public Health*.

2. **Shkempi A**, Park SK, Zelner J, Neitzel RL. Cumulative environmental/occupational exposures and injustices in Michigan. Preparing for *Environmental Health Perspectives*.
3. **Shkempi A**, Zelner J, Park SK, Neitzel RL. Occupational exposures may vary across neighborhoods. Preparing for *Health & Place*.
4. **Shkempi A**, Smith LM, Meier H CS, Adar S, Neitzel RL. Wider disparities in diesel PM and PM<sub>2.5</sub> persist in historically redlined neighborhoods that remain segregated. Preparing for *J Exp Sci & Env Epid*.
5. **Shkempi A**, Kelley L, Le AB. Racism and sexism are associated with a less safe workplace climate: An analysis of the U.S. General Social Survey Quality of Worklife. Preparing for *Social Science & Medicine*.
6. Le AB, **Shkempi A**, Earnest S, Garza E, Trout D, Choi SD. Non-pharmacological Pain Management Approaches among U.S. Construction Workers: A Cross-sectional Pilot Study. Preparing for *Am J Ind Med*.
7. Zhang X, **Shkempi A**, Smith LM, Nambunmee K, Jindaphong S, Parra-Giordano D, Yohannessen K, Ruiz-Rudolph P, Arain A, Neitzel RL. Heart rate and noise exposure among electronic waste recyclers in Thailand and Chile. Preparing for *Noise & Health*.
8. Le AB, **Shkempi A**, Tadee A, Sturgis A, Gibbs S, Neitzel RL. Health and Safety Climate among a Sample of Formal US Solid Waste Workers. Preparing for *Waste Management & Research*.

#### Letters to the Editor

1. **Shkempi A** and Neitzel R.L. (2022), Noise as a risk factor for COVID-19 transmission: Comment on Zhang: “Estimation of differential occupational risk of COVID-19 by comparing risk factors with case data by occupational group”. *Am J Ind Med*. <https://doi.org/10.1002/ajim.23349>

#### Non-peer-reviewed articles

1. Neitzel RL, **Shkempi A**, Wang L, Smith LM, Zhang X (2022). Update on The Apple Hearing Study. *NHCA Spectrum*. 3(2): 9-14.

#### Technical Reports

1. Levine J, Barron G, Maves S, **Shkempi A**, Sofka G, Wooldridge J, Grasso S, van Geest W. University of Michigan President’s Commission on Carbon Neutrality. “Final Commuting Analysis Team Report and Recommendations.” October 1, 2020.
2. Neitzel RL, Smith LM, **Shkempi A**, Ullman E, Bregg S, Perez J, Wang L, Li C. University of Michigan Exposure Research Lab. “Assessing Noise Exposures, Hearing, and Risk of Injuries Among Miners.” *Alpha Foundation for the Improvement of Mine Safety and Health*. May 31, 2020.

# Presentations

## Oral Presentations

\* represents co-presenters

1. **Shkempi A**, Zelner J, Park SK, Neitzel RL. International Society of Environmental Epidemiology – North American Chapter 1<sup>st</sup> Annual Conference (June 2023). Corvallis, OR, USA. “Assessing Occupational Justice in the State of Michigan”.
2. **Shkempi A\***, Smith LM\*, Neitzel RL. National Hearing Conservation Association 46<sup>th</sup> Annual Conference (February 2022), Virtual. “How does the historically racist policy of redlining impact transportation noise experienced today by neighborhoods in urban centers across Michigan?”
3. **Shkempi A**, Smith LM, Neitzel RL. National Hearing Conservation Association 46<sup>th</sup> Annual Conference (February 2022), Virtual. “Impact of occupational noise on work-related injuries across the US in 2019”.
4. **Shkempi A**, Smith LM, Wang L, Neitzel RL. 33<sup>rd</sup> Annual Conference of the International Society of Environmental Epidemiology (August 2021), Virtual. “The “cost” of noise at work: an occupational injustice among low wage workers and communities.” <https://doi.org/10.1289/isee.2021.O-LT-062>

## Posters

1. **Shkempi A**, Zelner J, Park SK, Neitzel RL. Michigan Environmental Justice Conference (June 2023). Detroit, MI, USA. “Assessing Occupational Justice in the State of Michigan.”
2. **Shkempi A**, Zelner J, Park SK, Neitzel RL. Michigan Environmental Justice Conference (June 2023). Detroit, MI, USA. “Linking environmental injustices in Detroit, MI to institutional racial segregation through historical federal redlining.”
3. **Shkempi A**, Smith LM, Neitzel RL. American Industrial Hygiene Conference and Expo 2022 (May 2023), Phoenix, AZ, USA. “Misperception of noise exposure at work among miners without a hearing loss.”
4. **Shkempi A**, Smith LM, Neitzel RL. National Hearing Conservation Association 46<sup>th</sup> Annual Conference (February 2023), Jacksonville, FL, USA. “Yes, Sound Can Travel Through Space: A non-physics approach to assessing the spatial variability of noise exposure.”
5. **Shkempi A**, Smith LM, Neitzel RL. 34<sup>th</sup> Annual Conference of the International Society of Environmental Epidemiology (September 2022), Athens, Greece. “Effect of historical redlining and current-day segregation on air pollution disparities across 143 cities in the USA.”
6. **Shkempi A**, Smith LM, Neitzel RL. 34<sup>th</sup> Annual Conference of the International Society of Environmental Epidemiology (September 2022), Athens, Greece. “A ranking of

environmental indicators among historically redlined neighborhoods in Detroit, Michigan, USA.”

7. Smith LM, **Shkempi A**, Neitzel RL. 34<sup>th</sup> Annual Conference of the International Society of Environmental Epidemiology (September 2022), Athens, Greece. “An association between historical redlining and road, rail, and air transportation noise today among eleven cities in Michigan, USA.”
8. **Shkempi A**, Smith LM, Le A, Neitzel RL. American Industrial Hygiene Conference and Expo 2022 (May 2022), Nashville, TN, USA. “Noise exposure and mental workload: evaluating the role of multiple noise exposure metrics using BKMR modeling among surface miners in the US Midwest.”
9. Roberts B, **Shkempi A**, Smith LM, Neitzel RL. American Industrial Hygiene Conference and Expo 2022 (May 2022), Nashville, TN, USA. “Beware the Grizzlyman: A comparison of job and industry-based noise exposure estimates using manual coding and the NIOSH NIOCCS System”
10. **Shkempi A**, Arain A, Neitzel R. University of Michigan UROP Symposium (Apr 2019), Ann Arbor, MI, USA. “Metal exposure by work task among informal e-waste workers in Thailand and Chile.”
11. **Shkempi A**, Neitzel R, Austin-Breneman J, Adhvaryu A, Nambunmee K. University of Michigan MCubed Symposium (July 2019), Ann Arbor, MI, USA. “Enhancing Informal Electronic Waste Recycling Tools and Methods.”

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## Mentoring

### Graduate Student Research Mentor

Anupon Tadee, UM EHS PhD, 2022

### Undergraduate Research Mentor

Keshav Patel, UM, 2023-2024

Karringtyn Johnson, Spelman College, 2023

Libby Kelley, UM SPH, 2022-2023

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## Professional Experience

### Ad hoc manuscript reviewer

BMC Public Health

Injury Prevention

International Journal of Epidemiology

PLoS One

## Memberships

American Statistical Association, since 2020  
International Society of Environmental Epidemiology, since 2021  
American Conference of Governmental Industrial Hygienists, since 2021  
American Industrial Hygiene Association, since 2021  
National Hearing Conservation Association, since 2021

## Service

UM EHS DEI Committee Student Member, 2021 – Present  
UM Environmental Health Student Association  
    President, 2022 – 2023  
        *Awards:* UM SPH Student Organization of the Year  
    Vice President, 2021 – 2022  
        *Awards:* UM SPH Rising Student Organization of the Year  
UM Industrial Hygiene Student Association Member, 2021 – Present

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## **Website Development**

1. Apple Hearing Study International Noise Awareness Day 2023:  
<https://sph-umich.shinyapps.io/ahs-inad-2023/>
2. Apple Hearing Study World Hearing Day 2022:  
<https://sph-umich.shinyapps.io/world-hearing-day-2022/>
3. Noise Job Exposure Matrix WebApp:  
<https://noise.shinyapps.io/noiseJEM/>
4. Supplemental Material for “Retrospective assessment of the impact of noise exposure on non-fatal and fatal injury rates among miners in the US from 1983-2014”:  
<https://noise.shinyapps.io/AlphaAim1/>
5. Noise Job Exposure Matrix Website:  
<http://noisejem.sph.umich.edu>

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## **Awards, Scholarships & Fellowships**

1. UM Harburg Student Award for Excellence in Social Epidemiology (2023); \$500
2. American Industrial Hygiene Foundation (AIHF) Ralph G. Smith Scholarship (2022); \$3,300
3. 3M Personal Safety Divisions’ Occupational Health and Safety Scholarship (2022); \$5,000
4. Michigan-NIOSH Education and Research Center Fellowship (2021-2023)

5. University of Michigan School of Public Health Scholarship (2021-2023)
6. University of Michigan University Honor's (Fall and Winter terms, 2017-2018; Winter term, 2019)
7. The Michigan Competitive Scholarship (Fall and Winter terms, 2017-2018; 2018-2019; 2019-2020, 2020-2021)
8. University of Michigan LSA Scholarship (2017-2021)

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## **Volunteer Experience**

<b>Position</b>	<b>Organization</b>	<b>Dates</b>
Invasive Plant Remover	City of Ann Arbor Natural Area Preservation, Ann Arbor, MI	2019 – Present
Cat Care Specialist	Pet Adoption Alternative of Warren (PAAW)	2018

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## **(Statistical) Software.**

Statistical	R, RMarkdown, Shiny R; Stan; STATA; SPSS; SAS; Python; Jupyter Notebook
Other	Microsoft Office Suite 2003, 2007, 2010, 2016; Office 365 (Word, Excel, Powerpoint, Access); LaTeX; Mendeley; Adobe Acrobat, Photoshop, Premiere Pro