CARSON MOWRER, MPH

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EDUCATION

MS Oregon State University, Data Analytics Expected June 2025 Advisors: Virginia Lesser, DrPH, MS Sharmodeep Bhattacharyya, PhD, MS **MPH** Oregon State University, Epidemiology June 2024 Advisor: Ellen Smit, PhD, RD BS Oregon State University, Mathematics June 2022 Concentration: Statistics BS Oregon State University, Economics June 2022 Concentration: Mathematical Economics

RELEVANT COURSEWORK

Core Mathematical and Statistical Foundations

- Theory of Statistics I
- Mathematical Statistics I and II
- Probability I and II
- Linear Algebra I and II
- Advanced Calculus I and II, Multivariable Advanced Calculus

Biostatistics and Statistical Methods

- Statistical Methods I, Methods of Data Analysis I and II
- Advanced Epidemiological Methods
- Statistical Genomics
- Applied Stochastic Models

Biostatistics Applications and Specialized Topics

- Healthcare Epidemiology
- Mathematical Modeling of Biological Systems
- GIS and Public Health
- Applied Machine Learning
- Data Visualization

Graduate Research Assistant, Oregon State University Supervisor: Matthew Bozigar, PhD, MA

June 2023 to Present

- Designed and executed data collection protocol to measure community noise in Portland, OR to create a high-resolution map of noise exposure.
- Authored manuscript and presented research findings at an academic conference.
- Analyzed association between environmental radon exposure and brain/central nervous system cancer in Women's Health Initiative cohort.

Research Consultant, Samaritan Health Services Supervisor: Paulina Kaiser, PhD, MPH

September 2023 to Present

• Developed and implemented a privacy-preserving record linkage methodology to join electronic health records with data from community organizations.

Graduate Research Intern, Samaritan Health Services June 2023 to September 2023 Preceptor: Paulina Kaiser, PhD, MPH

 Analyzed impact of a pilot program embedding physical therapists into primary care clinics.

TEACHING EXPERIENCE

Graduate Teaching Assistant, Oregon State University September 2022 to June 2023 Statistics Department

- Assisted for ST 201: Principles of Statistics and ST 352: Introduction to Statistical Methods II.
- Experience with both in-person and Ecampus instruction.
- Led 30-student recitation and lab sections with emphasis on practical application of lecture material and statistical software.

MANUSCRIPTS UNDER REVIEW AND IN PREPARATION

Mowrer C, Larkin A, Roscoe C, Grady ST, Peters JL, Haggerty B, Hystad P, Bozigar M. "Systematic measurement and characterization of community noise in a medium-large city in the United States". Journal of Exposure Science and Environmental Epidemiology (under review November 2024).

Hertel A, Hererra EZ, Ratliff J, **Mowrer C**, Kaiser P, Hackstedt C, Hudson-Hanley B, Kowalski BM, Edwards M. "Patterns revealed by merging healthcare and housing services data: ED visits and hospitalizations are higher among those experiencing chronic vs. non-chronic homelessness". Journal of Social Distress and Homelessness (under review October 2024).

Bozigar M, Larkin A, **Mowrer C,** Roscoe C, Grady ST, Haggerty B, Peters JL, Hystad P. "Predicting road traffic noise at high spatial resolution for a medium-large city in the United States". In preparation.

Larkin A, **Mowrer C**, Roscoe C, Grady ST, Haggerty B, Peters JL, Hystad P, Bozigar M. "Predicting noise at high spatial resolution from a systematic measurement campaign in Portland, Oregon". Annual Cascadia Symposium on Environmental, Occupational, and Population Health; 2025, Jan 10, Blaine, WA.

Mowrer C, Larkin A, Roscoe C, Grady ST, Peters JL, Haggerty B, Hystad P, Bozigar M. "Systematic measurement and modeling of community noise at high spatiotemporal resolution in Portland, Oregon". International Society of Exposure Science; 2024, Oct 23, Montreal, Canada.

Mowrer C, Larkin A, Peters JL, Haggerty B, Hystad P, Bozigar M. "Systematic measurement of community noise exposures in Portland, Oregon: Implications for environmental justice and population health." Annual Cascadia Symposium on Environmental, Occupational, and Population Health; 2024, Jan 12, Blaine, WA.

POSTER PRESENTATIONS

Mowrer C, Whitsel E, Schwartz GG, Reiner AP, Collins JM, Stewart JD, Shi C, Bozigar M. "Residential radon exposure and brain and central nervous system cancer risk in the Women's Health Initiative 1993 to Mid-2024". Annual Cascadia Symposium on Environmental, Occupational, and Population Health; 2025, Jan 9, Blaine, WA.

Mowrer C, Kaiser P, Hererra Z, Ratliff J, Hackstedt C, Hudson-Hanley B, Edwards M. "Merging HMIS & EMR data via privacy-preserving record linkage". Oregon Public Health Association Annual Conference; 2024, Oct 7, Corvallis OR.

Mowrer C, Herrera Z, Kaiser P. "Analysis of Physical Therapy in Primary Care pilot program" Samaritan Regional Scholarly Symposium; 2024, May 29, Corvallis, OR.

HONORS AND AWARDS

Best Poster Presentation

2025

 Annual Cascadia Symposium on Environmental, Occupations, and Population Health, Blaine, WA

Best Oral Presentation

2024

 Annual Cascadia Symposium on Environmental, Occupational, and Population Health, Blaine, WA

Best Poster Presentation, 2nd Place

2024

• Samaritan Regional Scholarly Symposium, Corvallis, OR

Drucilla Shepard Smith Scholastic Award

2022

• Awarded for cumulative 4.0 GPA at Oregon State University

Phi Beta Kappa 2022

• Oregon State University Chapter

PERSONAL PROJECTS

Historical Redlining and Asthma: An Ecological Study

- Analysis of association between historically redlined neighborhoods and asthma prevalence in 143 US cities
- https://arcg.is/08Pq5H

COMPUTING SKILLS

Programming and Analysis Software

• R, Python, ArcGIS Pro, SAS, SQL, MATLAB

REFERENCES

Matthew Bozigar, PhD, MA

Assistant Professor, School of Biological and Population Health Sciences Oregon State University

Sarah C. Emerson, PhD

Associate Professor, Department of Statistics Oregon State University

Paulina Kaiser, PhD, MPH

Director, Community Health and Research Samaritan Health Services