

Graham Diedrich, MPP

M.S. Data Science Candidate, Michigan State University

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Education

Master of Science in Data Science May 2025
Michigan State University, East Lansing, MI
Specializations: Environmental and Social Systems Modeling,
Community Engagement

Master of Public Policy May 2023
Michigan State University, East Lansing, MI
Specialization: Environmental Science and Policy

Bachelor of Arts in International Relations August 2021
Michigan State University, East Lansing, MI
Focus Area: International Environmental Law

Research Experience

Graduate Student Researcher October 2021 – Present
Forest Carbon and Climate Program,
Michigan State University, East Lansing, MI

Projects:

> *Forests as a Climate Solution: State Policy Tracking Initiative*

Responsibilities:

- Spearheading comprehensive policy research backed by a substantial \$50,000 grant from the Environmental Defense Fund.
- Systematically gathering, categorizing, meticulously analyzing, and diligently tracking an extensive array of state-level initiatives and policies with the potential to either bolster or hinder the role of forests as a paramount climate solution.
- Conducting intricate comparative analyses, employing advanced statistical tools such as STATA and R, to dissect legislative discrepancies among various states.

Deliverables:

- Interactive policy database and maps with publicly available data for 50 states
- Six white papers and a peer-reviewed publication (in progress)

Outcomes:

- Providing enhanced decision-making capabilities for state policymakers by highlighting best practices and common challenges across the U.S.

> ***Forest Property Tax Programs and Carbon Project Compatibility***

Responsibilities:

- Leading an analysis with \$12,000 in funding from the American Forest Foundation, assessing the compatibility between state forest preferential tax programs and forest landowner enrollment in voluntary carbon markets.
- Conducting qualitative interviews with industry professionals and local government officials across nine states, including Virginia.
- Assisting with policy-adjacent projects in a multi-institutional context, including carbon energy modeling.

Deliverable:

- Report detailing results from qualitative interviews and policy analysis across nine states.

Intended Outcomes:

- Greater understanding of how the legal, administrative, and operational contexts of the nine states of interest, influence compatibility between carbon offset projects and enrollment in preferential tax treatment programs.

Catalyst Leadership Circle Fellow

May 2023 – August 2023

Graham Sustainability Institute,
University of Michigan, Ann Arbor, MI

Project:

> ***Harnessing the Power of Greenhouse Gas Inventories for Local Climate Action***

Responsibilities:

- Developed two community-guided, advanced greenhouse gas inventories for Grand Haven, MI and Rockford, MI to aid the creation of future sustainability plans.
- Utilized ICLEI ClearPath, the EPA GHG Tool, and the internationally recognized Greenhouse Gas Protocol.
- Presented to policymakers, community members, and academics with a focus on decarbonization and environmental justice.
- Used spatial and temporal data in combination with field research methods.
- Worked in a collaborative team setting to gather emissions data from 14 key stakeholders, including regional planning bodies, utilities, and transit systems.

Deliverables:

- Step-by-step guide for other municipalities interested in GHG inventories.
- Two municipal-specific summary reports, detailing key emission sources.

Outcomes:

- Determining the annual 2022 emission production in both municipalities (156,303 MT CO₂e in Rockford, 150,476 MT CO₂e in Grand Haven).
- Empowerment at the local level as communities gained the tools and insights necessary to drive meaningful climate action.

- Pioneered a replicable approach that extends beyond individual municipalities, enabling the wider adoption of greenhouse gas inventories as a cornerstone of effective policy curation.

Teaching Experience

Public Policy Learning Assistant

January 2022 – May 2023

Department of Political Science,
Michigan State University, East Lansing, MI

Assisted Courses:

- > PLS 422: Seminar in Political Science
- > PLS 494 Field Experience in Political Science

Responsibilities:

- > Graded assignments and provided lectures on environmental policy for four undergraduate sections as part of the Michigan Government Semester Program.
- > Improved student comprehension of environmental legislation by 14% compared to pre-testing.

Academic Publications

Diedrich, G. (2023). Climate Resilience and Environmental Justice: A Framework for Evaluating Municipal Climate Action Plans. (manuscript submitted)

Non-Academic Publications

Diedrich, G. (2023). From Data to Action: Harnessing GHG Inventories for Local Sustainability Initiatives. U-M Graham Sustainability Institute. Ann Arbor, MI.

Diedrich, G. (2023). Who's Paying the Price? The Legacy of the Part 201 Program in Michigan. East Lansing, MI.

Halle, B., **Diedrich, G.**, Lee, S. (2022). Willingness to Pay for Renewable Energy in East Lansing. East Lansing, MI.

Diedrich, G. (2022). An Impact Evaluation Proposal: Oregon's 'Cap-and-Trade' Climate Protection Program. MSU Forest Carbon and Climate Program. East Lansing, MI.

Diedrich, G. (2022). How will the Inflation Reduction Act impact forest and carbon management? MSU Forest Carbon and Climate Program. East Lansing, MI.

Diedrich, G. (2022). Carbon Pricing: Carbon Markets and Carbon Taxes. MSU Forest Carbon and Climate Program. East Lansing, MI.

Conference Presentations

Diedrich, G. (2022). Assessing the Interplay between State Climate Plans and the SDGs: A Case Study in the Great Lakes Region. Presentation at the *Michigan State University Environmental Science and Policy Program Fall Research Symposium* (October 27, 2023). East Lansing, MI.

Diedrich, G. (2023). Who's Paying the Price? The Legacy of the Part 201 Program in Michigan. Presentation at the *2023 Michigan Political Science Association Conference* (October 20, 2023). Flint, MI.

Diedrich, G. (2023). Building Resilient Communities: The Intersection of Climate Change, Local Governance, and Environmental Justice. Presentation at the *2023 Michigan Political Science Association Conference* (October 4-5, 2023). East Lansing, MI.

Diedrich, G. (2023). Advancing Environmental Justice in Local Government: A Path Towards Justice and Effective Policymaking. Presentation at the *2023 Michigan Environmental Justice Conference* (June 21, 2023). Detroit, MI.

Diedrich, G. (2022). Forests as a Climate Solution: State Policy Tracking Initiative. Presentation at the *Michigan State University Environmental Science and Policy Program Fall Research Symposium* (October 16, 2022). East Lansing, MI.

Certifications

Certificate in College Teaching

April 2023

Michigan State University, East Lansing, MI

Topics: Developing Discipline-Related Teaching Strategies, Creating Effective Learning Environments, Assessing Student Learning

Inclusive Teaching Certificate

January 2022

Columbia University, New York, NY

Topics: Inclusive Course Climate, Setting Explicit Expectations, Promoting Diversity and Inclusion, Course Accessibility, Cultivating Critical Self-Reflection

Skills

Software & Packages: Stata, R, ArcGIS, Microsoft Excel, Qualtrics, Matplotlib, Pandas

Coding Languages: Python 3.x, R

Relevant Courses: Modeling Environmental and Social Systems (ESP 890), Microeconomic Theory (PPL 805), Policy Evaluation (PPL 806)

Interpersonal: Task delegation, time management, active listening, team communication

Honors, Fellowships, & Awards

National Science Foundation STEM Ambassador Program Michigan State University, East Lansing, MI	September 2023
MSU Cloud Computing Fellowship Institute for Cyber-Enabled Research, Michigan State University, East Lansing, MI	August 2023
Catalyst Leadership Circle Fellowship Graham Sustainability Institute, University of Michigan, Ann Arbor, MI	May 2023
MSU Graduate & Professional Student Appreciation Michigan State University, East Lansing, MI	April 2023
Public Policy Learning Assistant Scholarship Department of Political Science, Michigan State University, East Lansing, MI	January 2022, January 2023
Tom Schneider Peace Award Peace Education Center, East Lansing, MI	May 2019

Community Service

Environmental Commissioner Government of Meridian Township, Haslett, MI	February 2022 – Present
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Responsibilities:

- Producing a municipal sustainability plan in coordination with other elected broad members and representatives.
- Reviewing grant and other funding requests for local environmental projects.
- Coordinating recycling and reuse events.

Planting Volunteer ReLeaf Michigan, Lansing, MI	April 2019 – Present
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University Service

Student Committee Lead ESPP Fall Research Symposium, College of Social Science, Michigan State University, East Lansing, MI	August 2023 – Present
Organizing Committee Member Fate of the Earth Conference, College of Social Science, Michigan State University, East Lansing, MI	December 2022 – Present

Conference Reviewer

Engagement Scholarship Consortium,
Michigan State University, East Lansing, MI

April 2023

References

References are available upon request.