

DR. GREGORY ROWANGOULD

Department of Civil and Environmental Engineering

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EDUCATION

- PhD** **University of California, Davis (2010)**
Civil and Environmental Engineering: concentration in Transportation
- MS** **University of Maine, Orono (2006)**
Resource Economics and Policy: concentration in Environmental Economics
- BS** **University of Maine, Orono (2003)**
Chemical Engineering

ACADEMIC APPOINTMENTS

University of Vermont, Burlington, VT

Associate Professor, Department of Civil & Environmental Engineering (8/2019 – current)

Acting Chair, Department of Civil & Environmental Engineering (9/1/2023 – 1/15/2024)

Director, UVM Transportation Research Center (1/16/2020 – current)

Faculty Affiliate, Sustainable Development Policy, Economics and Governance PhD Program, Department of Community Development and Applied Economics (8/2021 – current)

University of New Mexico, Albuquerque, NM

Associate Professor, Department of Civil, Construction & Environmental Engineering (6/2019 – 8/2019)

Director, New Mexico Local Technical Assistance Program (NM LTAP) Center (4/2017 – 8/2019)

Assistant Professor, Department of Civil, Construction & Environmental Engineering (8/2012 – 6/2019)

OTHER PROFESSIONAL EXPERIENCE

Sustainable Systems Research (SSR), LLC, Davis, CA

Principle (5/2017 – 12/2024)

SSR is a small consulting firm made up of academics that works exclusively to assist disadvantaged communities with technical transportation and environmental analysis.

Natural Resources Defense Council, Santa Monica, CA

Transportation and Air Quality Science Fellow (7/2010 – 7/2012)

University of California, Davis, CA

Research Assistant, Department of Civil & Environmental Engineering (9/2006 – 7/2010)

Teaching Assistant, Department of Civil & Environmental Engineering (3/2010 – 6/2010, 3/2009 – 6/2009)

University of Maine, Orono, ME

Research Assistant, Department of Resource Economics & Policy and the Margaret Chase Smith Policy Center (9/2004 – 8/2006)

National Semiconductor, South Portland, ME

Process Engineer, co-op program (5/2000 – 9/2000, 5/2001 – 8/2001, 3/2004 – 8/2004)

Fairchild Semiconductor, South Portland, ME

Process Engineer, co-op program (5/2002 – 1/2003)

AWARDS AND HONORS

Best Paper Award, Fall Semester 2017

Civil Engineering Department, University of New Mexico

Young Professional Runner-Up Best Paper Award

Environmental Management Group, Air & Waste Management Association 108th Annual Conference, Raleigh, NC (June 25, 2015)

Best Paper Award, Spring Semester 2015

Civil Engineering Department, University of New Mexico

Young Professional Best Paper Award

Environmental Management Group, Air & Waste Management Association 107th Annual Conference, Long Beach, CA (June 25, 2014)

EXTERNAL SERVICE**Data, Metrics, and Analytic Methods for Assessing Equity Impacts of Surface Transportation Investments: Phase 2--Study to Support State and Local Decision Making, Transportation Research Board of the National Academies, Washington, D.C.**

Committee Member (1/2024 – 12/2024)

2024 Transportation Research Board Annual Meeting, Washington, D.C.

Workshop Organizer and Chair, Workshop 1069 - Overcoming Challenges to Decarbonizing Transportation in Small and Rural Communities (7/2023 – 1/2024)

Transportation Research Part D: Transport and Environment, Elsevier Ltd.

Associate Editor (10/2023 – current)

Member of the Editorial Board (1/2017 – 9/2023)

Transportation Energy Committee (AMS30), Transportation Research Board of the National Academies, Washington, D.C.

Committee Member (4/2023 – current)

Vermont Agency of Transportation

Carbon Reduction Strategy Technical Committee (9/2022 – 9/2023)

Air Quality and Greenhouse Gas Mitigation Committee (AMS10), Transportation Research Board of the National Academies, Washington, D.C.

Committee Member & Paper Review Coordinator (4/2020 – 4/2023)

2023 International Conference on Ecology and Transportation, Burlington, VT

Steering Committee Member

Transportation Research Board of the National Academies, Washington, D.C.

University Representative for UVM (8/2019 – current)

Southwest Bike Initiative

Member of the Advisory Board (12/2016 – current)

2023 Transportation Research Board Annual Meeting, Washington, D.C.

Workshop Organizer and Co-Chair, Making the Best Use of National Electric Vehicle Infrastructure Program Funds to Accelerate Fleet Electrification and Benefit Environmental Justice (7/2022 – 1/2023)

Chittenden County Regional Planning Commission

Member, Active Transportation Plan Advisory Committee (3/2022 – 1/2023)

US Department of Transportation, Volpe Center

Expert peer review of locomotive emission estimation methods for a rail delay cost study for the US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) (6/2022 – 9/2022)

Vermont Agency of Transportation

Emerging Technology Focus Group Member, VTrans Bicycle and Pedestrian Strategic Plan (3/2020 – 4/2020)

2021 Transportation Research Board Annual Meeting, Washington, D.C.

Workshop Co-Organizer & Moderator, A Marriage of Convenience: Partnering Greenhouse Gas and Air Quality Management, Lessons Learned and Future Research Needs. (6/2020 – 1/2021)

New England Transportation Consortium (NETC)

Advisory Committee Member representing UVM (7/2019 – 2/2021)

Transportation and Air Quality Committee (ADC20), Transportation Research Board of the National Academies, Washington, D.C.

Committee Member & Research Subcommittee Vice Chair (5/2017 – 4/2020)

Committee Member & Paper Review Co-Chair (4/2014 – 4/2017)

New England Transportation Consortium (NETC)

Advisory Committee Member representing UVM (7/2019 – 2/2021)

National Cooperative Highway Research Program, Transportation Research Board of the National Academies, Washington, D.C.

Panel Member, NCHRP Project 08-102 – Bicycle Facility Preferences and Effects on Increasing Bicycle Trips (10/2014 – 10/2019)

Every Day Counts STEP Committee, New Mexico Department of Transportation

Committee Member, Committee charged with developing a program to reduce pedestrian fatalities in New Mexico (1/2019 – 8/2019)

Minority Fellows Program, Transportation Research Board of the National Academies

Mentored 4 minority fellows (3 undergraduates, 1 graduate) (2015 – 2019)

2015 Transportation Research Board Annual Meeting, Washington, D.C.

Workshop Organizer, Co-Chair & Moderator, Integrated Land-use, Travel Demand, Air Quality & Exposure Modeling: The Future of Regional Transportation Planning? (6/2015 – 1/2015)

Sustainable Cities and Society, Elsevier Ltd.

Member of the Editorial Board (10/2014 – 2/2018)

Editor of Special Edition on Transportation (2/2016 – 8/2017)

2017 International Cycling Safety Conference, University of California, Davis, CA

Member of the Scientific Committee and Session Chair (9/2017)

Central New Mexico Climate Change Scenario Planning Project, US DOT & Mid-Region Council of Governments

Member, Mitigation Technical Committee (11/2013 – 6/2014)

Air and Waste Management Association Annual Conference, Raleigh, NC

Session Chair, Modeling Transportation Emissions (6/24/2015)

Statewide Public Health, Safety, and Security Working Group, New Mexico Department of Transportation

Working Group Member (11/2013 – 10/2015)

Land-Use Transportation Integration Committee, Mid-Region Council of Governments, Albuquerque, NM

Committee Member (12/2012 – 6/2014)

UNIVERSITY SERVICE

Admin Affairs Committee, Department of Civil and Environmental Engineering, UVM

Committee Chair (1/2024 – current)

Engineering Management Steering Committee, College of Engineering and Mathematical Sciences, UVM

Steering Committee Member (9/2023 – current)

UVM MOVE & Institute of Transportation Engineers, UVM Student Chapter

Faculty Advisor (1/2022 – current)

Faculty Search Committee, Department of Civil and Environmental Engineering, UVM

Environmental Engineering Search, Member (9/2022 – 5/2023)

Faculty Senate Financial and Physical Planning Committee, UVM

Member (9/2022 – current)

Curriculum Committee, Department of Community Development and Applied Economics, UVM

Member, committee for the Sustainable Development Policy, Economics and Governance PhD program (9/2022 – current)

Strategic Planning Committee, Department of Civil and Environmental Engineering, UVM

Member (9/2020 – 5/2022)

RTP, Workload and Evaluation Committee, Department of Civil and Environmental Engineering, UVM

Chair (9/2019 – 5/2023)

Faculty Senate Budget Committee, UNM

Member (8/2016 – 8/2019)

Graduate Committee, Department of Civil, Construction and Environmental Engineering, UNM

Member (8/2017 – 8/2019)

Institute of Transportation Engineers, UNM Student Chapter

Faculty Advisor (8/2016 – 8/2019)

Strategic Initiatives/Planning Committee, Department of Civil, Construction and Environmental Engineering, UNM

Chair, main task has been developing and updating the department's strategic plan (8/2014 – 8/2019)

Member (8/2012 – 5/2014)

Transportation and Paving Conference, Albuquerque, NM

Member, conference organizing committee (8/2012 – 8/2019)

Chair & Moderator, Sekreta Session – a session that focuses on alternative modes of transportation and renewable energy supported by an endowment from the Sekreta family; Moderator of various other sessions through the years. (annually, 2012 – 2018)

UNM Summer Transportation Institute, School of Engineering, UNM

Provide a workshop on transportation engineering and planning to high school students enrolled in this program (summers 2013 – 2018)

Undergraduate Committee, Department of Civil, Construction and Environmental Engineering, UNM

Member (8/2015 – 5/2016)

Service Learning Advisory Board, UNM

Member (8/2015 – 5/2016)

Liberal Arts & Integrative Studies Faculty Advisory Committee, University College, UNM

Member (8/2015 – 5/2016)

CONSULTING SERVICE

Freedman Boyd Hollander Goldberg Urias & Ward P.A., Albuquerque, NM (5/2016 – 8/2016)

Technical review of Albuquerque's ART bus rapid transit project for local community and business groups.

ICF Incorporated, LLC, Fairfax, VA (5/2014 – 12/2014)

Provided consulting services to ICF for a Federal Highway Administration and Centers for Disease Control project to develop a community health risk tool. Project website and tool available at <http://www.transportation.gov/transportation-health-tool/indicators>

United States Environmental Protection Agency, Anne Arbor, MI. (11/2013 – 12/2013)

Provided a scientific review of a US EPA sponsored air quality research project

Communities for a Better Environment, Huntington Park, CA. (11/2011 – 8/2012)

Provided transportation planning and air quality consulting services to Communities for a Better Environment

The Ride for Roswell, Buffalo, NY (4/2011 – 6/2011)

Pro bono consulting, bicycle traffic modeling and planning for a charitable community bicycle ride

Pew Center on Global Climate Change, Washington, D.C. (12/2008 – 8/2009)

Developed a research report investigating the GHG mitigation potential for domestic and international marine shipping and aviation

PEER REVIEWED JOURNAL PAPERS

- A1. Nelson, C., Quallen, E.* and **G. Rowangould** (2025). *Defining rural: Inconsistencies in observed travel behavior across rural and urban classifications in Vermont*. Journal of Transport Geography 128, 104357. <https://doi.org/10.1016/j.jtrangeo.2025.104357>
- A2. Lang, V.A., Camilleri, S.F., van der Lee, S., **Rowangould, G.**, Antonczak, B.*, Thompson, T.M., Harris, M.H., Harkins, C., Tong, D.Q., Janssen, M., Adelman, Z.E., Horton, D.E. (2025). *Intercomparison of Modeled Urban-Scale Vehicle NOx and PM2.5 Emissions—Implications for Equity Assessments*. Environ. Sci. Technol. <https://doi.org/10.1021/acs.est.4c09777>
- A3. Nelson, C.* and **G. Rowangould** (2024). *Lacking knowledge or lacking support? An informed choice study of support for mileage fees as an alternative to gas taxes*. Transportation Research Interdisciplinary Perspectives 27, 101208. <https://doi.org/10.1016/j.trip.2024.101208>
- A4. Nelson, C.*, **Rowangould, G.**, (2024). *Does Policy Knowledge Affect Public Support for Gas Tax Alternatives? A Case Study in Northern New England*. Findings. <https://doi.org/10.32866/001c.122375>
- A5. Antonczack, B.*, T. Thompson, M. DePaola, and **G. Rowangould** (2023). *2020 Near-roadway Population Census, Traffic Exposure and Equity in the United States*. Transportation Research Part D: Transportation and Environment. <https://doi.org/10.1016/j.trd.2023.103965>
- A6. Nelson, C.*, and **G. Rowangould** (2023). *A Data Driven Analysis of Rural Equity and Cost Concerns for Mileage-Based User Fees in Vermont*. Transportation Research Record, Journal of the Transportation Research Board. <https://doi.org/10.1177/03611981231206167>
- A7. Quallen, E*., J. Clarke*, C. Nelson*, and **G. Rowangould.** (2022) *Comparing Travel Behavior and Opportunities to Increase Transportation Sustainability in Small Cities, Towns, and Rural Communities*. Transportation Research Record, Journal of the Transportation Research Board. <https://doi.org/10.1177/03611981221124590>
- A8. Nadafianshahamabadi, R.* and **G. Rowangould.** (2021) *A closer look at urban development under the emergence of autonomous vehicles: Traffic, land use and air quality impacts*. Journal of Transport Geography. 94. doi.org/10.1016/j.jtrangeo.2021.103113
- A9. Corning-Padilla, A* and **G. Rowangould.** (2020). *Sustainable and Equitable Financing for Sidewalk Maintenance*. Cities. 107. doi.org/10.1016/j.cities.2020.102874
- A10. Tayarani, M. * and **G. Rowangould.** (2020). *Estimating Exposure to Fine Particulate Matter Emissions from Vehicle Traffic: Exposure Misclassification and Daily Activity Patterns in a Large, Sprawling Region*. Environmental Research, 182. doi.org/10.1016/j.envres.2019.108999
- A11. Rowangould, D., **G. Rowangould**, E. Craft and D. Niemeier. (2019) *Validating and Refining EPA's Traffic Exposure Screen Method*. International Journal of Environmental Research and Public Health, 16 (3). doi:10.3390/ijerph16010003
- A12. **Rowangould, G.**, R. Nadafianshahamabadi*, and A. Poorfakhraei*. (2018). *Programming Flexible Congestion Mitigation and Air Quality Program Funds: Best Practices for State DOTs*. Transportation Research Record: Journal of the Transportation Research Board of the National Academies. doi.org/10.1177/0361198118782801
- A13. Rowangould, D., **G. Rowangould**, and D. Niemeier. (2018). *Evaluation of the Health Impacts of Rolling Back a Port Clean Trucks Program*. Transportation Research Record: Journal of the Transportation Research Board of the National Academies. doi.org/10.1177/0361198118782801
- A14. Tayarani*, M., Nadafianshahamabadi*, R., Poorfakhraei*, A., **Rowangould, G.** (2018). *Evaluating the cumulative impacts of a long range regional transportation plan: Particulate matter exposure, greenhouse gas emissions, and transportation system performance*. Transportation Research Part D: Transport and Environment 63, 261–275. doi.org/10.1016/j.trd.2018.05.014

- A15. Tayarani*, M., Poorfakhraei*, A., Nadafianshahamabadi*, R., **Rowangould, G.** (2018). *Can regional transportation and land-use planning achieve deep reductions in GHG emissions from vehicles?* Transportation Research Part D: Transport and Environment 63, 222–235. doi.org/10.1016/j.trd.2018.05.010
- A16. Poorfakhraei, A*., M. Tayarani*, and **G. Rowangould.** (2017). Evaluating Health Outcomes from Vehicle Emissions Exposure in the Long Range Regional Transportation Planning Process. Journal of Transport & Health. 6: 501-515.
- A17. Nadafianshahamabadi, R*., M. Tayarani*, and **G. Rowangould.** (2017). *Differences in Expertise and Values: Comparing Community and Expert Assessments of a Transportation Project.* Sustainable Cities and Society. doi:10.1016/j.scs.2016.08.027
- A18. Tayarani, M*., A. Poorfakhraei*, R. Nadafianshahamabadi*, and **G. Rowangould.** (2016). *Evaluating unintended outcomes of regional smart-growth strategies: Environmental justice and public health concerns.* Transportation Research Part D: Transport and Environment 49, 280–290. doi:10.1016/j.trd.2016.10.011
- A19. **Rowangould, G.** and M. Tayarani* (2016). *The Effect of Bicycle Facilities on Travel Mode Choice Decisions.* ASCE Journal of Urban Planning and Development. doi: 10.1061/(ASCE)UP.1943-5444.0000341
- A20. Poorfakhraei, A.* and **G. Rowangould** (2015). *Estimating Welfare Change Associated with Improvements in Urban Bicycling Facilities.* ASCE Journal of Transportation Engineering. 141(11): 04015025.
- A21. **Rowangould, G.** (2015). *A New Approach for Evaluating Regional Exposure to Particulate Matter Emissions from Motor Vehicles.* Transportation Research Part D: Transport and Environment. 34: 307-317.
- A22. **Rowangould, G.** (2013). *Public Financing of Private Freight Rail Infrastructure to Reduce Highway Congestion: A Case Study of Public Policy and Decision Making in the United States.* Transportation Research Part A: Policy and Practice. 57: 25-36.
- A23. **Rowangould, G.** (2013). *A Census of the United States Near-Roadway Population: Public Health and Environmental Justice Considerations.* Transportation Research Part D: Transport and Environment. 2: 59-67.
- A24. **Gould, G.** and D. Niemeier (2011). *Assignment of Emissions Using a New Locomotive Emissions Model.* Environmental Science and Technology. 45(13): 5846- 5852.
- A25. **Gould, G.** and A. Karner (2009). *Modeling Bicycle Facility Operation: a Cellular Automaton Approach.* Transportation Research Record: Journal of the Transportation Research Board of National Academies. 2140: 157-164.
- A26. **Gould, G.** and D. Niemeier (2009). *Review of Regional Locomotive Emission Modeling and the Constraints Posed by Activity Data.* Transportation Research Record: Journal of the Transportation Research Board of the National Academies. 2117: 24-32.
- A27. Niemeier, D., **G. Gould,** A. Karner, M. Hixson, B. Bachmann, C. Okma, Z. Lang and D. Heres Del Valle (2008). *Rethinking downstream regulation: California's opportunity to engage households in reducing greenhouse gases.* Energy Policy, 36(9)

*Students advised by Dr. Rowangould

BOOKS AND BOOK CHAPTERS

- B1. National Academies of Sciences, Engineering, and Medicine. (2025). *An Assessment of Data, Tools, and Metrics for Equity in Decisions About Surface Transportation Investments.* Washington, DC: The National Academies Press. <https://doi.org/10.17226/28591>.

WORKING PAPERS AND PREPRINTS

- C1. Antonczak, B.*, T. Thompson, M. DePaola, and **G. Rowangould** (2025). *Multiscale Vehicle Traffic Air Pollutant Exposure and Equity Analysis in the United States using a Novel Emissions Exposure Surrogate*. ChemRxiv. <https://doi.org/10.26434/chemrxiv-2025-lmx3n>
- C2. Antonczak, B.*, M. Fay*, A. Chawla*, and **G. Rowangould** (2025). Estimated Roadway Segment Traffic Data by Vehicle Class for the United States: A Machine Learning Approach. arXiv. <https://doi.org/10.48550/arXiv.2502.05161>
- C3. Antonczak, B.*, E. Doran, and **G. Rowangould** (2025). Household Proximity to Pavement: Heat Exposure and Equity Analysis in Small Cities and Rural Communities. SSRN. <https://doi.org/10.2139/ssrn.5173645>

PEER REVIEWED CONFERENCE PAPERS

- C1. Victoria, L., S. Camilleri, S. van der Lee, **G. Rowangould**, B. Antonczak*, T. Thompson, M. Harris, C. Harkins, D. Tong, M. Janssen, Z. Adelman, and D. Horton (January 8, 2025) *Intercomparison of Modeled Urban-Scale Vehicle Emissions – Implications for Exposure and Equity Assessment*. Presented at the 104th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C2. Dreyer, E*. and **G. Rowangould** (January 8, 2025). *Taking a Hard Look: Do Active Transportation Projects Get a Fair Evaluation in LongRange Regional Transportation Planning?* Presented at the 104th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C3. Ahmadnia, N*. and **G. Rowangould** (January 7, 2025). *Housing Location Dissatisfaction, Travel Demand and Potential Implications of EVs, AVs and Remote Work*. Presented at the 104th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C4. Nelson, C*. and **G. Rowangould** (January 6, 2025). *Land Use and Travel Behavior: A Panel Study Using Relocated Households in Vermont to Assess Land Use Elasticities*. Presented at the 104th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C5. Fay, M*. and **G. Rowangould** (January 6, 2025). *Evaluating Cumulative Emissions Exposure and Equity Outcomes of Different Transition Pathways to an Electric Vehicle Fleet*. Presented at the 104th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C6. Ahmadnia, N*. E. Quallen* and **G. Rowangould** (January 8, 2024). *Coping with High Prices: Evaluating the Response to Rapidly Increasing Transportation Fuel Prices in Small and Rural Communities*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C7. Ahmadnia, N*. and **G. Rowangould** (January 8, 2024). *A Spatial Analysis of the Fuel Economy Rebound Effect Focusing in Small and Rural Communities*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C8. Antonczak, B*. and **G. Rowangould** (January 8, 2024). *Multiscale Vehicle Traffic Air Pollutant Exposure and Equity Analysis in the United States using a Novel Emissions Exposure Surrogate*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C9. Boothe, M., **G. Rowangould** and E. Doran (January 8, 2024). *Systematic Literature Review Evaluating Readiness of Novel Materials and Improved Pedestrian Infrastructure to Mitigate Heat*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C10. Nelson, C*. and **G. Rowangould** (January 8, 2024). *Mileage Fees as a Gas Tax Replacement: An Assessment of Public Support and Mileage Fee Rate Preference from a National Tax Survey*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.

- C11. Nelson, C*. and **G. Rowangould** (January 8, 2024). *Can Americans Support Alternatives to The Gas Tax? An Updated National Analysis of the Role of Information and Education on Policy Support*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C
- C12. Nelson, C*. and **G. Rowangould** (January 9, 2023). *Don't Track Me: An Analysis of Public Opinions on Mileage-Based User Fees as an Alternative to the Gas Tax*. Presented at the 102nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C13. Nelson, C*. and **G. Rowangould** (January 9, 2023). *A Data Driven Analysis of Rural Equity and Cost Concerns for Mileage-Based User Fees in Vermont*. Presented at the 102nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C14. King, P*, B. Lombard, A Nilgitsalanont, A. Dwyer, B. Antonczak*, **G. Rowangould**, and E. Doran (January 9, 2023). *The Contribution of Roads and Other Paved Surfaces to Heat Microenvironments in Small Cities and Towns*. Presented at the 102nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C15. Montana, S*. and **G. Rowangould** (January 11, 2023). *Effect of E-bike Use on Bicycle Infrastructure Preferences in Vermont*. Presented at the 102nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C16. Antonczak, B*, E. Doran, and **G. Rowangould** (January 10, 2023). *Evaluating Exposure to Extreme Heat Microenvironments from Transportation Infrastructure*. Presented at the 102nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C17. Antonczak, B*. and **G. Rowangould** (January 11, 2023). *An Updated Census of the U.S. Near Roadway Population and Equity Analysis*. Presented at the 102nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C18. Quallen, E.*, J. Clarke*, C. Nelson*, and **G. Rowangould** (January 10, 2022). *A Comparative Analysis of Opportunities and Barriers for Changing Travel Behavior and Reducing GHG Emissions in Small and Rural Communities*. Presentation at the 101th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C19. Clarke, J.*, E. Quallen*, C. Nelson*, and **G. Rowangould** (January 11, 2022). *The Impacts of COVID-19 on Travel Behavior in Small and Rural Communities*. Presentation at the 101th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C20. Quallen, E.* and **G. Rowangould** (January 10, 2022). *Consistently Inconsistent: An Assessment of Definitions of Rural and Travel Behavior Outcomes in Vermont*. Presentation at the 101th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C21. Dowds, J., **G. Rowangould** and L. Aultman-Hall (January 25, 2021). *Consideration of Automated Vehicle Benefits and Research Needs for Rural America*. Presentation at the 100th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C22. Kalhor, E.* and **G. Rowangould**. (January 14, 2020). *Accounting for the Temporal Resolution of Integrated Land-use and Travel Demand Modeling: An Analytical Approach for Evaluating Road Capacity Projects*. Presentation at the 99th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C23. Corning-Padilla, A.*, and **G. Rowangould**. (January 14, 2019) *Sustainable and Equitable Financing for Pedestrian Infrastructure Maintenance*. Presentation at the 98th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C24. Tayarani, M. * and **G. Rowangould**. (January 15, 2019) *Differences in Exposure to Vehicle Emissions: Comparing*

Dynamic and Static Analysis. Presentation at the 98th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.

- C25. Nadafianshahamabadi, R*., A. Corning-Padilla*, M. Tayarani*, and **G. Rowangould**. (January 16, 2019) *Integrated Travel Demand and Land Use Modeling for Evaluating the Congestion and Land Use Effects of Autonomous Vehicles*. Presentation at the 98th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C26. Montano, S*. and **G. Rowangould**. (January 9, 2018). *Evaluating the Role of Federal Transportation Funding Flexibility and Investments in Bicycle and Pedestrian Infrastructure*. Presentation at the 97th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C27. Mohammad, T*., R. Nadafianshahamabadi*, A. Poorfakhraei* and **G. Rowangould**. (January 9, 2018). *Evaluating the Cumulative Air Quality Impacts of a Long Range Regional Transportation Plan*. Presentation at the 97th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C28. **Rowangould, G.**, R. Nadafianshahamabadi*, and A. Poorfakhraei*. (January 9, 2018). *Programming Flexible Congestion Mitigation and Air Quality Program Funds: Best Practices for State DOTs*. Presentation at the 97th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C29. Dana, R., **G. Rowangould**, and D. Niemeier. (January 8, 2018). *Evaluation of the Health Impacts of Rolling Back a Port Clean Trucks Program*. Presentation at the 97th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C30. Nadafianshahamabadi, R.* and **G. Rowangould** (January 10, 2017). *Evaluating Sustainability in Transportation Plans: Review of Long-Range Transportation Plans in the United States*. Presentation at the 96th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C31. Tayarani. M*, A. Poorfakhraei* and **G. Rowangould** (January 10, 2017). *Can Regional Transportation and Land-Use Planning Reduce GHG Emissions?* Presentation at the 96th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C32. Rodriguez, M.* and **G. Rowangould** (January 11, 2017). *The Current State of Sidewalk ADA Compliance and Alternative Funding Methods for Albuquerque, NM*. Presentation at the 96th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C33. Tayarani. M*, A. Poorfakhraei*, and **Rowangould, G.** (August 4, 2016). *Can Regional Transportation and Land-Use Planning Reduce GHG Emissions?* Presented at the Transportation Research Board of the National Academies Summer Conference on Transportation Planning and Air Quality, Minneapolis, MN.
- C34. Tayarani. M*, A. Poorfakhraei*, and **Rowangould, G.** (August 5, 2016). *Quantifying the Air Quality & Congestion Benefits of Bicycle Facilities*. Presented at the Transportation Research Board of the National Academies Summer Conference on Transportation Planning and Air Quality, Minneapolis, MN.
- C35. Nadafianshahamabadi, R.*, M. Tayarani*, and **G. Rowangould** (January 12, 2016). *Differences in Expertise and Values: Comparing Community and Expert Assessments of a Transportation Project*. Presentation at the 95th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C36. Moreno, S. A.*, R. R. Gade*, and **G. Rowangould** (January 13, 2016). *Investigating Pedestrian Crash Risk in Albuquerque, New Mexico*. Presentation at the 95th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C37. Tayarani, M.*, A. Poorfakhraei*, R. Nadafianshahamabadi*, and **G. Rowangould** (January 13, 2016). *Large-Scale, High-*

Resolution Air Quality Modeling Framework to Evaluate Environmental Justice in Long-Range Transportation Planning.
Presentation at the 95th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.

- C38. Poorfakhraei, A.* and **G. Rowangould** (January 11, 2016) *Evaluating Mobile-Source Air Pollution Exposure, Equity, and Health Risks in Long-Range Regional Transportation Plans.* Presentation at the 95th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C39. **Rowangould, G.**, A. Poorfakhraei*, and M. Tayarani* (June 24, 2015). *A New Approach for Evaluating Regional Exposure to Particulate Matter Emissions from Motor Vehicles.* Presented at the Air & Waste Management Association Annual Conference, Raleigh, NC
- C40. Poorfakhraei, A.* and **G. Rowangould** (January 14, 2015). *Economic Valuation of Improvements in Urban Cycling Facilities.* Presented at the 94th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C41. **Rowangould, G.** and M. Tayarani* (January 12, 2015). *The Effect of Bicycle Paths on the Decision to Commute by Bicycle.* Presented at the 94th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C42. Tayarani, M.* and **G. Rowangould** (January 12, 2015). *Quantifying the Air Quality and Congestion Benefits of Bicycle Facilities: A Case Study from Albuquerque New Mexico.* Presented at the 94th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C43. **Rowangould, G.** (March 3, 2014). *Using AERMOD for Regional Transportation Planning: Exposure Analysis, Environmental Justice, and Pro-Active Hot-spot Analysis.* Presented at the Transportation, Land Use Planning, and Air Quality Conference, Charlotte, NC
- C44. **Rowangould, G.** (June 25, 2014). *Regional Long Range Transportation Plan Air Quality and Exposure Analysis.* Presented at the Air & Waste Management Association 107th Annual Conference, Long Beach, CA
- C45. **Rowangould, G.** and J. Luna (January 2014). *Does Dedicated Bicycle Infrastructure Reduce Motorized Vehicle Trips? Results from the Albuquerque Bicycle Travel Study.* Presented at the 93rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C46. **Gould, G.** and S. Contreras* (January 15, 2013). *Regional Scale Dispersion Modeling and Analysis of Directly Emitted Fine Particulate Matter from Highway Vehicles Using AERMOD.* Presented at the 92nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C47. **Gould, G.** (January 15, 2013). *A Census of the U.S. Near Roadway Population: Particulate Matter Exposure, Environmental Justice, and Coverage of the Air Quality Monitoring Network.* Presented at the 92nd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C48. **Gould, G.** and D. Niemeier (January 12, 2010). *A Geographically Detailed Locomotive Emission Model.* Presented at the 89th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C49. **Gould, G.** and A. Karner (January 14, 2009). *Modeling Bicycle Facility Operation: a Cellular Automaton Approach.* Presented at the 88th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C50. **Gould, G.** and D. Niemeier (January 12, 2009). *Review of Regional Locomotive Emission Modeling and the Constraints Posed by Activity Data.* Presented at the 88th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.

*Students advised by Dr. Rowangould

PEER REVIEWED REPORTS

- D1. Doran, E. M, Reichard, W., Boothe, M., Donnell, G., Fan, H., **Rowangould, G.**, & Guensler, R. (2025). *Mitigating Extreme Heat Exposure Using Advanced and Novel Materials and Improved Pedestrian Infrastructure Design: A Systematic Literature Review and Survey of Agencies*. UC Davis: National Center for Sustainable Transportation.
<http://dx.doi.org/10.7922/G23J3BBH>
- D2. **Rowangould, G.**, N. Ahmadnia*, C. Nelson*, E. Quallen*, and J. Clarke* (2024). *Evaluating Heterogeneity in Household Travel Response to Carbon Pricing: A Study Focusing on Small and Rural Communities*. UC Davis: National Center for Sustainable Transportation. <https://doi.org/10.7922/G2ZP44FW>
- D3. Nelson, C.* and **G. Rowangould**. (2024). *Education as a Key Factor in Policy Support: An Evaluation of National Mileage Fee Support as it Varies with Information and Attitudes*. UC Davis: National Center for Sustainable Transportation.
<http://dx.doi.org/10.7922/G20G3HH6>
- D4. Dowds, J., Sullivan, J., **Rowangould, G.**, & Aultman-Hall, L. (July 2021). *Consideration of Automated Vehicle Benefits and Research Needs for Rural America*. Prepared by the University of Vermont Transportation Research Center for the National Center for Sustainable Transportation. <http://dx.doi.org/10.7922/G2B27SKW>
- D5. **Rowangould, G.** and N. Ferenchak* (October 2020). *ABQ Streets: Creating Alternative Residential Street Designs*. Prepared by the University of New Mexico for the Transportation Consortium of South Central States (TranSET), Louisiana State University, Baton Rouge, LA. https://digitalcommons.lsu.edu/transet_pubs/69/
- D6. **Rowangould, G.** and A. Corning Padilla* (September 2019). *Evaluating How the Quality of Pedestrian Infrastructure Affects the Choice to Walk*. Prepared by the University of New Mexico for the Transportation Consortium of South Central States (TranSET), Louisiana State University, Baton Rouge, LA. https://digitalcommons.lsu.edu/transet_pubs/60/
- D7. **Rowangould, G.** and A. Corning Padilla* (August 2018). *Sustainable and Equitable Financing for Pedestrian Infrastructure Maintenance*. Prepared by the University of New Mexico for the Transportation Consortium of South Central States (TranSET), Louisiana State University, Baton Rouge, LA. https://digitalcommons.lsu.edu/transet_pubs/13/
- D8. McCollum, D., **G. Gould**, and D. Greene (December 2009). *Greenhouse Gas Emissions from Aviation and Marine Transportation: Mitigation Potential and Policies*. Report prepared for the Pew Center on Global Climate Change, Washington D.C. <https://www.c2es.org/document/greenhouse-gas-emissions-from-aviation-and-marine-transportation-mitigation-potential-and-policies/>

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OTHER REPORTS AND PUBLICATIONS

- E1. Nelson, C*. and G. Rowangould (2024) *Final Report: Transportation Sustainability Tracking Tool*. Prepared by the University of Vermont Transportation Research Center for the Chittenden County Regional Planning Commission.
<https://ccrpctranspstats.uvm.edu/>
- E2. Ahmadnia, N*. and **G. Rowangould** (2024). *Chittenden County Housing Location Dissonance Study*. Prepared by the University of Vermont Transportation Research Center for the Chittenden County Regional Planning Commission.
https://www.ccrpcvt.org/wp-content/uploads/2024/02/ResidentialDissonance_FinalReport.pdf
- E3. Nelson, C.* and **G. Rowangould**. (2024). *National mileage fee survey* [Dataset]. Dryad.
<https://doi.org/10.5061/dryad.rv15dv4f0>
- E4. Nelson, C.* and **G. Rowangould**. (2023) *The Role of Information and Education on Modifying Support for Gas Tax Alternatives using an Informed Choice Questionnaire*. University of Vermont Transportation Research Center. 273.
<https://scholarworks.uvm.edu/trc/273>

- E5. Nelson, C.* and **G. Rowangould** (2022) *A Data Driven Analysis of Rural Equity and Cost Concerns for Mileage-Based User Fees in Vermont*. University of Vermont Transportation Research Center. 274. <https://scholarworks.uvm.edu/trc/274>
- E6. **Rowangould, G.**, and M. Robinson. (2022) *Value of VTrans Research: Qualitative and Quantitative Analysis*. Prepared by the University of Vermont Transportation Research Center for the Vermont Agency of Transportation. https://vtrans.vermont.gov/sites/aot/files/Research/20221208_Value%20of%20Research%20Final%20Report-508_0.pdf
- E7. **Rowangould, G.**, E. Fox, R. O'Brien*, and J. Clarke*. (2022) *CCRPC Bicycle Count Data Analysis and Count Program Design Strategies*. Prepared by the University of Vermont Transportation Research Center for the Chittenden County Regional Planning Commission. https://studiesandreports.ccrpcvt.org/wp-content/uploads/2022/02/UVM_TRC_Bicycle_Count_Project_Final_Report_20220208.pdf
- E8. **Rowangould, G.** and E Fox. (September 2021). *CCRPC Active Transportation Plan Evaluation*. Prepared by the University of Vermont Transportation Research Center for the Chittenden County Regional Transportation Planning Commission, Winooski, VT. https://studiesandreports.ccrpcvt.org/wp-content/uploads/2021/09/ATP_Evaluation_FinalReport_UVM_TRC_20210913.pdf
- E9. **Rowangould, G.**, R. Nadafianshahamabadi*, A. Corning Padilla*, and M. Tayarani* (August 2018). *Autonomous Vehicle Traffic Impact Scenario Analysis: Central New Mexico Case Study - Final Report*. Prepared by the University of New Mexico for the New Mexico Department of Transportation, Santa Fe, NM.
- E10. **Rowangould, G.**, R. Nadafianshahamabadi*, and J. Seymour* (March 2018). *National Performance Management Research Data Set (NPMRDS) Best Practices Scan*, Prepared by the University of New Mexico for the New Mexico Department of Transportation, Santa Fe, NM.
- E11. **Rowangould, G.**, R. Nadafianshahamabadi*, A. Poorfakhraei*, S. Bogus Halter (May 2017) *Congestion Mitigation and Air Quality Program Best Practices Scan, Final Report*. Prepared by the University of New Mexico for the New Mexico Department of Transportation, Santa Fe, NM.
- E12. *Futures 2040: Metropolitan Transportation Plan*, Mid Region Council of Governments, Albuquerque, NM. (**G. Rowangould** was one of many contributors and co-authors)
- E13. **Rowangould, G.**, M. Tayarani*, and A. Poorafakhraei* (April, 2015). *Futures 2040: Metropolitan Transportation Plan - Appendix F: GHG Emissions Reduction Strategies*, Mid Region Council of Governments, Albuquerque, NM.
- E14. Lee, S., Tremble, M. Vaivai, J., **Rowangould, G.**, Tayarani, M.*, Poorfakhraei, A.* (March, 2015). *Central New Mexico climate change scenario planning project: final report*. Report prepared for the U.S. Department of Transportation, U.S. Federal Highway Administration and Mid Region Council of Governments.
- E15. Lee, S., M. Tremble, J. Vaivai, Herrington, C., R. Gonzalez-Pinzon, M. Stone, and **G. Rowangould** (December, 2014). *Climate Change Effects on Central New Mexico's Land Use, Transportation System and Key Natural Resources*. Report prepared by Ecosystem Management Inc. and the University of New Mexico for the U.S. Department of Transportation VOLPE Center, Cambridge, MA
- E16. **Rowangould, G.**, M. Tayarani*, and A. Poorafakhraei* (November, 2014) *Central New Mexico Climate Change Scenario Planning Project: Analysis of Additional Greenhouse Gas Mitigation Strategies*. Report prepared by the University of New Mexico for the U.S. Department of Transportation VOLPE Center, Cambridge, MA
- E17. Lee, S., M. Tremble, J. Vaivai, Herrington, C., R. Gonzalez-Pinzon, M. Stone, and **G. Rowangould** (May 2014) *Climate Change Resilience of Land Use, Transportation and Key Natural Resources in Central New Mexico*. Report prepared by Ecosystem Management Inc., Sustainable Systems Research LLC. and the University of New Mexico for the U.S. Department of Transportation VOLPE Center, Cambridge, MA

- E18. **Gould, G.** (2012) *Analysis of Greenhouse Gas Emission Estimates for the Interstate 710 Corridor Project*. Report Prepared for Communities for a Better Environment, Huntington Park, CA.
- E19. **Gould, G.** (2012) *Analysis of the Alternatives Selection Process for the Interstate 710 Corridor Project*. Report Prepared for Communities for a Better Environment, Huntington Park, CA.
- E20. **Gould, G.** (2012) *Physical Separation of the Chicago Area Waterway System: The Economic and Environmental Impact of Barge Traffic Disruption*. NRDC Working Paper.
- E21. C. Noblet, **G. Gould**, J. Rubin, D. Innis, and C. Morris (2006). *Sustainable Transportation Funding for Maine's Future*. Report prepared for the Maine Department of Transportation, Augusta, ME.

*Students advised by Dr. Rowangould

INVITED SCHOLARY PRESENTATIONS

- F1. **Rowangould, G.** and M. Fay* (November 15, 2024) *Exposure to Vehicle Traffic Emissions and Equity Outcomes in the United States During the Transition to an Electric Vehicle Fleet*. Invited Seminar. Institute of Transportation Studies, University of California, Davis.
- F2. **G. Rowangould** and C. Nelson* (October 1, 2024) *Chittenden County Transportation Sustainability Assessment Tool and Data Dashboard*. Chittenden County Regional Planning Commission Transportation Advisory Committee (TAC), Winooski, VT.
- F3. Nelson, C*. and **G. Rowangould** (August 14, 2024) *From Per Gallon to Per Mile: Equity and Public Opinion Around Transportation Funding Streams*. Invited poster presentation at the U.S. Department of Transportation Future of Transportation Summit, Washington, D.C. https://fot-summit.org/?page_id=692
- F4. **G. Rowangould** and C. Nelson* (February 28, 2024) *Vermont Transportation Funding*. Invited presentation. State of Vermont Senate Committee on Transportation. <https://legislature.vermont.gov/committee/document/2024/31/Date/2-28-2024#documents-section>
- F5. **G. Rowangould** (May 1, 2024) *UVM Transportation Research Center Roadway Finance, Traffic Safety and other VT Research Updates*. Invited presentation. State of Vermont House Committee on Transportation. <https://legislature.vermont.gov/committee/document/2024/20/Date/5-1-2024#documents-section>
- F6. Ahmadnia, N*. and **G. Rowangould** (February 14, 2024). *Chittenden County Housing Location Dissonance Study*. Invited Presentation, Chittenden County Regional Planning Commission Planning Advisory Committee (PAC).
- F7. Ahmadnia, N*. and **G. Rowangould** (November 7, 2023). *Chittenden County Housing Location Dissonance Study*. Invited Presentation, Chittenden County Regional Planning Commission Transportation Advisory Committee (TAC).
- F8. Ahmadnia, N*. and **G. Rowangould** (October 12, 2023) *Chittenden County Housing Location Dissonance Study*. Invited Presentation, CATMA 2023 Transportation Summit, Burlington, VT.
- F9. Antonczak, B.* and **G. Rowangould** (June 1, 2023) *A National Assessment of Vehicle Traffic Emissions, Public Health, and Environmental Justice Concerns*. Environmental Defense Fund Air Pollution Inequity Research Seminar Series.
- F10. **Rowangould, G.** and C. Nelson* (October 18, 2022) *Rural Accessibility & Sustainable Mobility Research*. Invited Presentation, CATMA 2022 Transportation Summit, Burlington, VT. <https://catmavt.org/catmasummit2022>
- F11. **Rowangould, G.**, D. Rowangould, and J. Rubin. (December 1, 2022) *Sustainable Transportation in Rural and Small Communities: How do we get there from here?* Invited Webinar. US Climate Alliance Rural VMT Cohort Winter Convening.

- F12. **Rowangould, G.** (February 16, 2022) *UVM Transportation Research*. Invited presentation. State of Vermont Senate Committee on Transportation.
- F13. **G. Rowangould**, B. Antonczak* and M. Robinson (December 16, 2021) *Revisiting Exposure to Vehicle Traffic Emissions: Evaluating Exposure and Equity at Multiple Scales*. Invited Presentation. Environmental Defense Fund Air Pollution Inequity Research Seminar Series.
- F14. **G. Rowangould** (February 26, 2021) *Vermont Transportation Research Impact on State Policy and Practices*. Invited presentation. State of Vermont Senate Committee on Transportation.
- F15. **G. Rowangould** (February 25, 2021) *Policy Insights from Electric Vehicle Markets in the Northeast and California*. Invited presentation. Capitol Hill Policy Briefing hosted by the National Center for Sustainable Transportation, University of California, Davis.
- F16. **G. Rowangould** (January 21, 2021). *Identifying Systemic Transportation-related Health Effects of COVID-19 to inform Interdisciplinary Research*. Invited panelist and workshop speaker. 100th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- F17. **G. Rowangould** (August 26, 2020) *Sustainable & Equitable Financing for Sidewalk Maintenance*. Invited presentation. Webinar hosted by the National Center for Sustainable Transportation, University of California, Davis.
- F18. **Rowangould, G.** (April 30, 2019). *Autonomous Vehicles & Land-use Change: An Integrated Modeling Analysis in ABQ*. Invited participant and speaker at the Autonomous Vehicle Modeling Expert Group Meeting, University of California, Davis, CA.
- F19. **Rowangould, G.** (August 24, 2017). *Is Long-Range Regional Transportation Planning in the United States Effective?* Invited Workshop Speaker, Smart Cities – Governing Accessibility, Air Pollution and Equity, University of Sao Paulo, Brazil
- F20. **Rowangould, G.** (November 11, 2017). *Roadway Safety Countermeasures for Everyone*. Invited presentation at the 2017 Driving School Association of the Americas Annual Conference, Albuquerque, NM.
- F21. **Rowangould, G.** (October 28, 2016). *Are Metropolitan Planning Organizations Effective?* Invited seminar at the Department of Economics, University of New Mexico.
- F22. **Rowangould, G.** (October 8, 2016). *Transportation Disruptions*. Invited panelist at Symposium: Celebrating 25 Years of Research and Impact, Institute of Transportation Studies, University of California, Davis, CA
- F23. **Rowangould, G.** (February 2, 2016). *Can Metropolitan Planning Organizations Stop Rising Greenhouse Gas Emissions?* Invited presentation to the New Mexico chapter of the Air and Waste Management Association, Albuquerque, NM.
- F24. **Rowangould, G.** (November 14, 2014). *The Effect of Bicycle Facilities on the Decision to Commute by Bicycle, Congestion and Air Quality: New Evidence from Albuquerque, New Mexico*. Invited seminar at the Institute for Transportation Studies, University of California, Davis, CA
- F25. **Rowangould, G.** (May 2, 2014). *Integrating Air Dispersion and Regional Travel Demand Models: Opportunities and limitations*. Invited presentation at the Transdisciplinary Workshop on Transportation and Public Health, McGill University, Montreal, Canada
- F26. **Rowangould, G.** (November 8, 2013). *Sustainable Transportation Systems: 2013 and Beyond*, Invited presentation, Emerging Trends in Sustainable Transportation Performance Measures: An Open Workshop, Santa Fe, NM
- F27. **Rowangould, G.** (April 9, 2013). *Regional Scale Dispersion Modeling and Analysis of Directly Emitted Fine Particulate Matter from Highway Vehicles using AERMOD*. Invited presentation to the United States Environmental Protection

Agency, Washington, D.C.

- F28. **Rowangould, G.** (March 8, 2013). *Raising The Grade: Innovative Financing and Technology Practices to Save Our Infrastructure*. Invited panel speaker at the Spring Meeting of the New Mexico Section of the American Society of Civil Engineers, Albuquerque, NM
- F29. **Gould, G.** (October 9, 2009). *Considering Goods Movement: Air Quality and Climate Change Issues in Planning and Policy*. Invited seminar at the School of Economics, University of Maine, Orono, ME.
- F30. **Gould, G.** (December 6, 2005). *A spatial analysis of passenger vehicle attributes, environmental impact and policy*. Invited seminar at the Cambridge Center for Climate Change Research, University of Cambridge, Cambridge, UK.

OTHER SCHOLARY PRESENTATIONS

- G1. Tabassum, T.*, C. Nelson, and **G. Rowangould** (July 26, 2025). *From National Models to Local Planning: Modeling Household-Level EV Charging Demand in Rural Communities*. Presented at the 3rd Annual POLARIS User Group Workshop, Chicago, IL
- G2. Fay, M.* and **G. Rowangould** (April 10, 2025). *Are We Driving Toward Equity? Exploring the Impact of Different Electric Vehicle Transition Scenarios on Near Road Emissions Exposure*. Presented at the 2025 International Urban Freight Conference, University of Southern California, Los Angeles, CA.
- G3. Brown, G.* and **G. Rowangould** (April 9, 2025). *Regional Planning for Sustainable and Equitable Goods Movement: Identifying Barriers and Best Practices from a Study of 48 Metropolitan Planning Organizations*. Presented at the 2025 International Urban Freight Conference, University of Southern California, Los Angeles, CA.
- G4. Fay, M*. and **G. Rowangould** (January 7, 2025). *Are We Driving Toward Equity? Exploring the Impact of Different Electric Vehicle Transition Scenarios on Emissions Exposure*. Presented at the 104th Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- G5. Nelson, C*. and **G. Rowangould** (October 15, 2024) *Bringing the Data to Decision-Making Using Chittenden County DMV Records*. Presentation at the CATMA 2024 Transportation Summit, Burlington, VT.
- G6. Ahmadnia, N*. and **G. Rowangould** (October 15, 2024) *Electric and Autonomous Vehicles, Housing Location Choice and the Potential Impacts on Travel Demand*. Presentation at the CATMA 2024 Transportation Summit, Burlington, VT.
- G7. Dreyer, E*. and **G. Rowangould** (September 25, 2024). *Taking a Hard Look: Do Active Transportation Projects Get a Fair Evaluation in Long-Range Regional Transportation Planning?* Presentation at the Vermont Agency of Transportation 2024 Research and Innovation Symposium, Barre, VT
- G8. Fay, M*. and **G. Rowangould** (September 25, 2024) *Assessing the Impact of Literature-Based Trip Generation Rates on Truck Activity Modeling: Insights from Chittenden County, Vermont*. Presentation at the Vermont Agency of Transportation 2024 Research and Innovation Symposium, Barre, VT
- G9. Fay, M*. and **G. Rowangould** (August 27, 2024) *Evaluating Cumulative Emission Exposure and Equity Outcomes of Different Transition Pathways to an Electric Vehicle Fleet*. Presentation at the Transportation Research Board Transportation Symposium on Environment, Energy, and Livable Economies, Denver, CO
- G10. Ahmadnia, N*. and **G. Rowangould** (August 26, 2024) *The Potential of EVs and Avs to Reduce Housing Location Dissatisfaction and Implications on Travel Demand*. Presentation at the Transportation Research Board Transportation Symposium on Environment, Energy, and Livable Economies, Denver, CO
- G11. Nelson, C*. and **G. Rowangould** (August 26, 2024) *Can Smart Growth Reduce Vehicle Use? A Longitudinal Analysis of Household Vehicle Miles Travelled in Vermont*. Presentation at the Transportation Research Board Transportation

Symposium on Environment, Energy, and Livable Economies, Denver, CO

- G12. Nelson, C*. and **G. Rowangould** (August 26, 2024) *Who's Paying for the Roads? Evaluating the Equity of Transportation Funding Options Across Community Types and Income Groups*. Presentation at the Transportation Research Board Transportation Symposium on Environment, Energy, and Livable Economies, Denver, CO
- G13. **Rowangould, G.** and C. Nelson* (March 20, 2024) *How You Can Address Mileage Fee Concerns: Evidence from Three Studies*. National Center for Sustainable Transportation Webinar. <https://ncst.ucdavis.edu/events/webinar-how-can-you-address-mileage-fee-concerns-evidence-three-studies>
- G14. Doran, E., P. King*, and **G. Rowangould** (January 31, 2024) *Responding to the Health Risk of Heat Exposure: Understanding the Mitigation and Adaptive Capacity in the General Population of New England*. Presented at the American Meteorological Society 104th Annual Meeting, Baltimore, MD
- G15. Nelson, C*. and **G. Rowangould** (January 9, 2024) *The Effect of Relocation and the Built Environment on Household Travel*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C
- G16. Fay, M*. and **G. Rowangould** (January 9, 2024) *High-Resolution Reference Case for Assessing National Traffic-Related Emissions and Exposure Equity During the Transition to an Electric Vehicle Fleet*. Presented at the 103rd Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C
- G17. **Rowangould, G.**, B. Antonczak*, T. Thompson, and M. DePaola (December 12, 2023) *Multiscale Vehicle Traffic Air Pollutant Exposure and Equity Analysis in the United States using a Novel Emission Exposure Surrogate*. Presentation at the American Geophysical Union (AGU) 2023 Annual Meeting, San Francisco, CA
- G18. Lang, V., C. Harkins, **G. Rowangould**, S. van der Lee, B. Antonczak*, D. Horton (December 15, 2023) *Modeled on-road NOx emissions intercomparison: FIVE v. LADCO v. NEMO v. UVM*. Presentation at the American Geophysical Union (AGU) 2023 Annual Meeting, San Francisco, CA
- G19. **Rowangould, G.** and B. Antonczak* (October 27, 2023) *A National Assessment of Vehicle Traffic Emissions, Public Health, and Environmental Justice Concerns*. Sustainable Development Policy, Economics and Governance Seminar, Department of Community Development and Applied Economics, University of Vermont, Burlington, VT.
- G20. Boothe, M., **G. Rowangould**, E. Doran (October 12, 2023) *Systematic Literature Review Evaluating Readiness of Novel Materials and Improved Pedestrian Infrastructure to Mitigate Heat*. Presentation at the CATMA 2023 Transportation Summit, Burlington, VT.
- G21. Ahmadnia, N*. and **G. Rowangould** (October 12, 2023) *A Spatial Analysis of the Fuel Economy Rebound Effect Focusing on Small and Rural Communities*. Presentation at the CATMA 2023 Transportation Summit, Burlington, VT.
- G22. Nelson, C*. and **G. Rowangould** (October 12, 2023) *Can Americans Support Alternatives to The Gas Tax? The Role of Information and Education on Policy Support*. Presentation at the CATMA 2023 Transportation Summit, Burlington, VT.
- G23. Nelson, C*. and **G. Rowangould** (October 12, 2023) *Data Driven Analysis of Rural Equity and Cost Concerns for Mileage-Based User Fees in Vermont*. Presentation at the CATMA 2023 Transportation Summit, Burlington, VT.
- G24. Robinson, M., **G. Rowangould**, and M. Tayarani (June 7, 2023) *Whose Emissions Are You Breathing? Evaluating the Contributions of Urban, Suburban and Rural Households to Mobile Source Emission Exposure*. Air and Waste Management Association 116th Annual Conference & Exhibition. Orlando, FL
- G25. **Rowangould, G.**, B. Antonczak*, T. Thompson, and M. DePaola (June 7, 2023) *An Updated Census of the US Near Roadway Population and Multiscale Equity Analysis Using Novel Mobile Source Emission Exposure Surrogates*. Air and

Waste Management Association 116th Annual Conference & Exhibition. Orlando, FL

- G26. Nelson, C.* and **G. Rowangould** (June 7, 2023) *A Deeper Look into the Relationships between Travel Behavior and the Built Environment Using Data on Relocated Households in Vermont*. Air and Waste Management Association 116th Annual Conference & Exhibition. Orlando, FL
- G27. Ahmadnia, N.* and **G. Rowangould** (June 7, 2023) *A Spatial Analysis of the Fuel Economy Rebound Effect Focusing on Small and Rural Communities*. Air and Waste Management Association 116th Annual Conference & Exhibition. Orlando, FL
- G28. Doran, E., P. King*, and **G. Rowangould**. (May 14-17, 2023) *Understanding Heat Risk Perception and Adaptive Capacity in the General Population of the Northeast*. International Congress of Biometeorology, Arizona State University, Tempe, AZ.
- G29. Antonczak*, B., P. King*, **G. Rowangould**, E. Doran. (May 14-17, 2023) *Heat Exposure Mitigation Through Pavement Reduction Scenarios*. International Congress of Biometeorology, Arizona State University, Tempe, AZ.
- G30. King, P*., **G. Rowangould**, B. Antonczak*, and E. Doran. (May 14-17, 2023) *The Contributions of Roads and Other Paved Surfaces to Heat Microenvironments in Small Cities and Towns*. International Congress of Biometeorology, Arizona State University, Tempe, AZ.
- G31. Nelson, C.,* and **G. Rowangould** (May 11, 2023). *A Data Driven Analysis of Rural Equity and Cost Concerns for Mileage-Based User Fees in Vermont*. Presented the 2023 Annual Institute of Transportation Engineers (ITE) Northeastern District Meeting, Burlington, VT
- G32. Ahmadnia, N.,* and **G. Rowangould** (May 11, 2023) *A Spatial Analysis of the Fuel Economy Rebound Effect Focusing on Small and Rural Communities*. Presented the 2023 Annual Institute of Transportation Engineers (ITE) Northeastern District Meeting, Burlington, VT
- G33. King, P*., **G. Rowangould**, and E. Doran. (May 11, 2023) *The Contribution of Roads and Other Paved Surfaces to Heat Microenvironments in Small Cities and Towns*. Presented the 2023 Annual Institute of Transportation Engineers (ITE) Northeastern District Meeting, Burlington, VT
- G34. **Rowangould, G.** and B. Antonczak* (April 21, 2023) *A National Assessment of Vehicle Traffic Emissions, Public Health, and Environmental Justice Concerns*. GundXChange Seminar, Gund Institute for the Environment, University of Vermont, Burlington, VT.
- G35. **Rowangould, G.** (January 10, 2023) NCST Capitol Hill Research Briefing: Challenges and Opportunities for Improving Mobility & Access to Sustainable Transportation in Rural Communities, Rayburn House Office Building, Washington, DC.
- G36. Doran, E., P. King*, B. Antonczak*, B. Lombard, A. Nilgitsalanont, A. Dwyer, **G. Rowangould**. (January 8-12, 2023) *Drivers of Heat Microenvironments and Exposure Risk in Small Cities and Rural Communities*. American Meteorological Society Annual Meeting, Denver, CO.
- G37. **Rowangould, G.**, and M. Robinson (September 14, 2022) *Value of VTrans Research: Qualitative and Quantitative Analysis*. 2022 Research and Innovation Symposium, Vermont Agency of Transportation. Barre, VT.
<https://vtrans.vermont.gov/planning/research/projects/ResearchEval>
- G38. **Rowangould, G.** (May 18, 2022) *Disaggregate and Comprehensive Panel Data for Evaluating Vermont Transportation Policy*. College of Engineering and Mathematical Sciences Spring 2022 Research Slam, University of Vermont.
- G39. Davis, B., and **G. Rowangould** (May 6, 2022) CCRPC Bike Count Program. Vermont Walk/Bike Summit, Middlebury, VT.

- G40. **Rowangould, G.** (December 16, 2020) *Research Needs for Achieving Vermont's Transportation GHG Mitigation Goals*. Presentation to the Vermont Interagency Climate and Energy Policy Action Committee (ICEPAC).
- G41. **Rowangould, G.** (October 23, 2020) *Challenges to Sustainable Transportation in Vermont*. Graduate seminar series presentation. Department of Civil & Environmental Engineering, University of Vermont
- G42. **Rowangould, G.** (October 9, 2020) *Challenges to Sustainable Transportation in Vermont*. Facebook Live Presentation hosted by Sustainable Transportation Vermont. <https://www.facebook.com/stvermont/videos/366157381245530/>
- G43. **Rowangould, G.** and A. Corning-Padilla* (April 11, 2019) *Evaluating how the Quality of Pedestrian Infrastructure Affects the Choice to Walk*. Presented at the 2019 TranSET Conference, San Antonio, TX
- G44. Corning-Padilla, A.* and **G. Rowangould** (April 11, 2019) *Sustainable & Equitable Financing for Pedestrian Infrastructure Maintenance*. Presented at the 2019 TranSET Conference, San Antonio, TX
- G45. Corning-Padilla, A.*, and **G. Rowangould**. (January 10, 2019) *What makes a street walkable? A study on funding maintenance and evaluating new designs in Albuquerque*. Presented at the 56th Paving and Transportation Conference, Albuquerque, NM
- G46. **Rowangould, G.**, R. Nadafianshamabadi*, A. Corning-Padilla* and M. Tayarani* (January 9, 2019). *Autonomous Vehicle Impacts on Traffic and Congestion in Albuquerque, New Mexico*. Presented at the 56th Paving and Transportation Conference, Albuquerque, NM
- G47. **Rowangould, G.** and A. Corning-Padilla* (April 19, 2018) *Sustainable & Equitable Financing for Pedestrian Infrastructure Maintenance & Reconstruction*. Presented at the 2018 TransCon Conference, New Mexico State University, Las Cruces, NM
- G48. Corning-Padilla, A.* and **G. Rowangould** (April 4, 2018) *Sustainable & Equitable Financing for Pedestrian Infrastructure Maintenance & Reconstruction*. Presented at the 2018 TranSET Conference, New Orleans, LA
- G49. Nadafianshamabadi, R* and **G. Rowangould** (February 18, 2018) *Is Long-Range Regional Transportation Planning in the United States Effective?* Presented at the American Association for the Advancement of Science (AAAS) Annual Meeting, Austin, TX.
- G50. Mohammad, T*, R. Nadafianshamabadi*, A. Poorfakhraei* and **G. Rowangould**. (January 4, 2018). *Evaluating the Cumulative Impacts of a Long Range Regional Transportation Plan: Particulate Matter Exposure, Greenhouse Gas Emissions, and Transportation System Performance*. Presented at the 55th Paving and Transportation Conference, Albuquerque, NM
- G51. Rodriguez, M.P.* and **G. Rowangould**. (January 5, 2017). *The Current State of Sidewalk ADA Compliance and Alternative Funding Methods For Albuquerque, NM*. Presented at the 54th Paving and Transportation Conference, Albuquerque, NM
- G52. **Rowangould, G.** (May 10, 2016) *Transportation Planning for More Resilient Communities*. University of New Mexico First Resilience Colloquium, Albuquerque, NM
- G53. **Rowangould, G.** and M. Tayarani* (January 4, 2016). *The Effect of Bicycle Facilities on the Decision to Commute by Bicycle: New Evidence from Albuquerque, New Mexico*. Presented at the 53rd Paving and Transportation Conference, Albuquerque, NM
- G54. Tayarani, M.*, A. Poorfakhraei*, and **G. Rowangould** (May 7, 2015). *Increasing Sustainability through Provision of Bicycling Facilities: A Case Study in Albuquerque, New Mexico*. Presented at Transportation for Sustainability – An International Conference, Keck Center of the National Academies, Washington, DC
- G55. **Rowangould, G.** (January 7, 2014). *Public Investment in Private Freight Rail Infrastructure*. Presented at the 51st Paving

and Transportation Conference, Albuquerque, NM

- G56. **Gould, G.** (October 25, 2011). *Income, Race, and the Odds of Living Along Busy Roadways: Using Census Data to Consider Equity and Environmental Justice in Regional Transportation Planning*. Presented at the Transportation Research Board Using Census Data for Transportation Conference, Beckman Center of the National Academies, Irvine, CA.
- G57. **Gould, G.** (May 7, 2010). *A Spatially Detailed Locomotive Emission Model and Goods Movement Data Constraints on Public Policy and Planning*. Presented at the Institute of Transportation Studies, University of California, Davis, CA.
- G58. **Gould, G., D. Niemeier, and A.V. Goodchild** (March 17, 2008). *A Cart Before the Horse: Disaggregate Locomotive Models and Data Constraints*. Presented at the Transportation Research Board Data for Goods Movement Impact on Air Quality Conference, Irvine, CA.
- G59. **Gould, G.** (March 17, 2006). *A spatial analysis of passenger vehicle attributes, environmental impact and policy*. Presented at Laval-UMaine Student Research Conference, Department of Agricultural Economics, Laval University, Quebec, Canada.

FUNDING HISTORY

Environmental Defense Fund Quantifying contributions of traffic-related air pollutants to air pollution concentrations and human health costs Role: PI, Funding: \$20,000	1/29/2025 - current
U.S. Department of Transportation Center for Emissions Reduction, Resiliency, and Climate Equity in Transportation Role: PI for UVM Subaward Funding \$170,000	1/1/2025 - current
Vermont Agency of Transportation GHG Reductions due to VT Clean Transportation Incentive Programs Role: Co-PI, Funding: \$95,000	9/1/2024 - current
Chittenden County Regional Planning Commission Chittenden County Transportation Sustainability Assessment Tool and Data Dashboard Role: PI, Funding: \$71,561	10/2023 – 10/2024
Eastern Research Group, Inc (ERG)/U.S. Environmental Protection Agency Environmental, Analytical, Research, Technical, and Hybrid (EARTH) Support Services Role: PI, Funding: \$141,890	7/2023 – current
U.S. Department of Transportation National Center for Sustainable Transportation – National UTC Role: Co-PI, Funding \$20,000,000 (PI for UVM Subaward Funding \$1,800,000)	6/2023 - current
U.S Department of Energy Enabling Place-Based Renewable Power Generation using Community Energysghed Design Role: Co-PI, Funding \$4,290,092	6/2023 - current
Chittenden County Regional Planning Commission South Burlington Climate Action Plan Performance Measurement Role: PI, Funding: \$4,647 (as TRC income-expense project)	2/2023 – 7/2023
TIDC University Transportation Center, UMaine/U.S. DOT Development and Application of a Cost-Benefit Tool for Quantifying External Social Impacts of Small to Mid-Size Transportation Projects Role: Co-PI, Funding \$223,425	9/2022 – current
NCST University Transportation Center, UC Davis/U.S. DOT Evaluating Support for Mileage Based User Fees in Diverse Communities and the Value of Providing Contextual	8/2022 – 8/2023

Information	
Role: PI, Funding: \$85,000	
NCST University Transportation Center, UC Davis/U.S. DOT	8/2022 – 9/2023
Identifying Opportunities and Implementation Barriers to Heat Mitigation Through Application of Novel Materials and Improved Pedestrian Infrastructure Design	
Role: Co-PI, Funding \$37,000	
National Science Foundation	8/2022 - current
Uncovering Barriers to Low-Carbon Travel to Strengthen Transportation Infrastructure in Rural Communities	
Role: C-PI, Funding \$750,000	
Chittenden County Regional Planning Commission	6/2022 – 6/2023
Evaluating Technology, Policy and COVID-19 Disruptions to Household Travel in Chittenden County	
Role: PI, Funding: \$40,000	
Vermont Agency of Transportation	10/1/2021 –
Value of VTrans Research: Quantitative and Qualitative Analysis	8/31/2022
Role: PI, Funding \$13,556	
Environmental Defense Fund	6/2021 –
National Near Roadway Vehicle Emission Exposure Risk Analysis	12/2022
Role: PI, Funding: \$75,367	
National Oceanic and Atmospheric Administration	6/2021 – 5/2023
Exposure-based Extreme Heat Vulnerability Mapping to Inform Adaptation and Mitigation of Extreme Heat	
Exposure Risk in Small Cities and Rural Settlements	
Role: Co-PI, Funding: \$300,000	
Chittenden County Regional Planning Commission	7/2020 – 6/2021
CCRPCP Bicycle Count Program Evaluation and Data Analysis	
Role: PI, Funding: \$57,000	
TIDC University Transportation Center, UMaine/U.S. DOT	9/2020 – 9/2023
Evaluation of processed glass aggregate for utilization in transportation projects as a sand borrow	
Role: Co-PI, Funding \$168,752	
NCST University Transportation Center, UC Davis/U.S. DOT	9/2020 –
Evaluating Heterogeneity in Household Travel Response to Carbon Pricing: A Study Focusing on Small and Rural Communities	12/2022
Role: PI, Funding: \$170,000	
U.S. Environmental Protection Agency	10/1/2019 –
People, Prosperity and Planet (P3) Student Design Competition: Cool and Sustainable Sidewalks	9/30/2022
Role: PI, Funding \$24,999	
TranSET University Transportation Center, Louisiana State University/U.S. DOT	8/2019 – 8/2021
ABQ Streets Project: Creating Alternative Residential Street Designs	
Role: PI, Funding: \$50,000	
National Science Foundation	7/2019 – 6/2024
Center for Water and Environment Phase II	
Role: key participant, Funding: \$5,000,000	
U.S. Environmental Protection Agency	1/2016 –
Science to Achieve Results (STAR) Research Program - Early Career Award: Evaluating the Timeline of Particulate Matter Exposure from Urban Transportation and Land-Use Greenhouse Gas Mitigation Strategies Using a Novel Modeling Framework	12/2021

Role: PI, Funding: \$335,605

TranSET University Transportation Center, Louisiana State University/U.S. DOT

Evaluating how the Quality of Pedestrian Infrastructure Affects the Choice to Walk

Role: PI, Funding: \$50,000

3/2018 –
10/2019

New Mexico Department of Transportation

Management of the New Mexico Local Technical Assistance Program

Role: PI, Funding: \$146,500

4/2019 – 9/2019

Albuquerque International Balloon Fiesta Inc., Albuquerque, NM

Balloon Fiesta Transportation Analysis and Planning

Role: Co-PI, Funding: \$64,500

1/2019 – 8/2019

New Mexico Department of Transportation

Management of the New Mexico Local Technical Assistance Program

Role: PI, Funding: \$430,000

4/2017 – 4/2019

City of Albuquerque, NM

Sustainable and Equitable Financing for Pedestrian Infrastructure Maintenance (match for TranSET grant)

Role: PI, Funding: \$6,000

9/2017 – 6/2019

TranSET University Transportation Center, Louisiana State University/U.S. DOT

Sustainable and Equitable Financing for Pedestrian Infrastructure Maintenance

Role: PI, Funding: \$15,000

5/2017 –
12/2018

New Mexico Department of Transportation

Autonomous Vehicle Traffic Impact Scenario Analysis: Central New Mexico Case Study

Role: PI, Funding: \$79,962

7/2017 – 8/2018

New Mexico Department of Transportation

Supporting State and Regional Transportation Agency Decision Making with the National Performance

Management Research Data Set

Role: PI, Funding: \$59,416

6/2017 – 1/2018

New Mexico Department of Transportation

Local Technical Assistance Program (LTAP) Work Plan Development

Role: Co-PI, Funding: \$19,323

8/2016 –
11/2016

New Mexico Department of Transportation

CMAQ Best Practices Scan

Role: PI, Funding: \$54,829

11/2016 –
4/2017

U.S. Department of Transportation

Central New Mexico Climate Change Scenario Planning Project

Role: PI for UNM subcontract from Ecosystems Management Inc., UNM Funding Share: \$103,859

3/2014 –
12/2014

STUDENTS SUPERVISED

- Currently advising 5 graduate students (1 MS and 4 PhD) and 1 postdoctoral fellow
- Advised 11 graduate students that have graduated (5 MS and 6 PhD)