

# DR. GREGORY ROWANGOULD

Department of Civil and Environmental Engineering

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[www.uvm.edu/cems/trc/profiles/gregory-rowangould](http://www.uvm.edu/cems/trc/profiles/gregory-rowangould)

## EDUCATION

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- 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

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### **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

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

*Principal (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

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### **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 108<sup>th</sup> 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 107<sup>th</sup> Annual Conference, Long Beach, CA (June 25, 2014)

## EXTERNAL SERVICE

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### **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 – current)

### **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**

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**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**

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**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

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- A1. 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>
- A2. 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>
- A3. 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>
- A4. 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](https://doi.org/10.1016/j.jtrangeo.2021.103113)
- A5. Corning-Padilla, A\* . and **G. Rowangould**. (2020). *Sustainable and Equitable Financing for Sidewalk Maintenance*. Cities. 107. [doi.org/10.1016/j.cities.2020.102874](https://doi.org/10.1016/j.cities.2020.102874)
- A6. 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](https://doi.org/10.1016/j.envres.2019.108999)
- A7. 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](https://doi.org/10.3390/ijerph16010003)
- A8. **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](https://doi.org/10.1177/0361198118782801)
- A9. 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](https://doi.org/10.1177/0361198118782801)
- A10. 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](https://doi.org/10.1016/j.trd.2018.05.014)
- A11. 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](https://doi.org/10.1016/j.trd.2018.05.010)
- A12. 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.
- A13. 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](https://doi.org/10.1016/j.scs.2016.08.027)

- A14. 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
- A15. **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
- A16. Poorfakhraei, A.\* and **G. Rowangould** (2015). *Estimating Welfare Change Associated with Improvements in Urban Bicycling Facilities*. ASCE Journal of Transportation Engineering. 141(11): 04015025.
- A17. **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.
- A18. **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.
- A19. **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.
- A20. **Gould, G.** and D. Niemeier (2011). *Assignment of Emissions Using a New Locomotive Emissions Model*. Environmental Science and Technology. 45(13): 5846- 5852.
- A21. **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.
- A22. **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.
- A23. 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

## PEER REVIEWED CONFERENCE PAPERS

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- C1. 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.
- C2. 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.
- C3. 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.
- C4. 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.

- C5. 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
- C6. 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
- C7. 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.
- C8. 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.
- C9. 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.
- C10. 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.
- C11. 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.
- C12. 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.
- C13. 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.
- C14. 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.
- C15. 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.
- C16. 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.
- C17. 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.
- C18. 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.

- C19. 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.
- C20. 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.
- C21. 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 97<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C22. 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 97<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C23. **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 97<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C24. 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 97<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C25. 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 96<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C26. Tayarani. M\*, A. Poorfakhraei\* and **G. Rowangould** (January 10, 2017). *Can Regional Transportation and Land-Use Planning Reduce GHG Emissions?* Presentation at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C27. 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 96<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C28. 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.
- C29. 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.
- C30. 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 95<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C31. Moreno, S. A.\*, R. R. Gade\*, and **G. Rowangould** (January 13, 2016). *Investigating Pedestrian Crash Risk in*



*Albuquerque, New Mexico*. Presentation at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.

- C32. 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 95<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C33. 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 95<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C34. **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
- C35. Poorfakhraei, A.\* and **G. Rowangould** (January 14, 2015). *Economic Valuation of Improvements in Urban Cycling Facilities*. Presented at the 94<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C36. **Rowangould, G.** and M. Tayarani\* (January 12, 2015). *The Effect of Bicycle Paths on the Decision to Commute by Bicycle*. Presented at the 94<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C37. 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 94<sup>th</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C38. **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
- C39. **Rowangould, G.** (June 25, 2014). *Regional Long Range Transportation Plan Air Quality and Exposure Analysis*. Presented at the Air & Waste Management Association 107<sup>th</sup> Annual Conference, Long Beach, CA
- C40. **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 93<sup>rd</sup> Annual Meeting of the Transportation Research Board of the National Academies, Washington, D.C.
- C41. **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.
- C42. **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.
- C43. **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.
- C44. **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.
- C45. **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

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- D1. 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>
- D2. 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>
- D3. **Rowangould, G.** and N. Ferencsak\* (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/](https://digitalcommons.lsu.edu/transet_pubs/69/)
- D4. **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/](https://digitalcommons.lsu.edu/transet_pubs/60/)
- D5. **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/](https://digitalcommons.lsu.edu/transet_pubs/13/)
- D6. 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/>

\*Students advised by Dr. Rowangould

## OTHER REPORTS AND PUBLICATIONS

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- E1. 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](https://www.ccrpcvt.org/wp-content/uploads/2024/02/ResidentialDissonance_FinalReport.pdf)
- E2. Nelson, C.\* and **G. Rowangould**. (2024). *National mileage fee survey* [Dataset]. Dryad. <https://doi.org/10.5061/dryad.rv15dv4f0>
- E3. 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>
- E4. 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>
- E5. **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](https://vtrans.vermont.gov/sites/aot/files/Research/20221208_Value%20of%20Research%20Final%20Report-508_0.pdf)
- E6. **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](https://studiesandreports.ccrpcvt.org/wp-content/uploads/2022/02/UVM_TRC_Bicycle_Count_Project_Final_Report_20220208.pdf)

- E7. **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](https://studiesandreports.ccrpcvt.org/wp-content/uploads/2021/09/ATP_Evaluation_FinalReport_UVM_TRC_20210913.pdf)
- E8. **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.
- E9. **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.
- E10. **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.
- E11. *Futures 2040: Metropolitan Transportation Plan*, Mid Region Council of Governments, Albuquerque, NM. (**G. Rowangould** was one of many contributors and co-authors)
- E12. **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.
- E13. 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.
- E14. 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
- E15. **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
- E16. 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
- E17. **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.
- E18. **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.
- E19. **Gould, G.** (2012) *Physical Separation of the Chicago Area Waterway System: The Economic and Environmental Impact of*

*Barge Traffic Disruption*. NRDC Working Paper.

- E20. 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

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- F1. 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).
- F2. 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).
- F3. Ahmadnia, N\*. and **G. Rowangould** (October 12, 2023) *Chittenden County Housing Location Dissonance Study*. Invited Presentation, CATMA 2023 Transportation Summit, Burlington, VT.
- F4. 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.
- F5. **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>
- F6. **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.
- F7. **Rowangould, G.** (February 16, 2022) *UVM Transportation Research*. Invited presentation. State of Vermont Senate Committee on Transportation.
- F8. **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.
- F9. **G. Rowangould** (February 26, 2021) *Vermont Transportation Research Impact on State Policy and Practices*. Invited presentation. State of Vermont Senate Committee on Transportation.
- F10. **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.
- F11. **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.
- F12. **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.
- F13. **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.
- F14. **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

- F15. **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.
- F16. **Rowangould, G.** (October 28, 2016). *Are Metropolitan Planning Organizations Effective?* Invited seminar at the Department of Economics, University of New Mexico.
- F17. **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
- F18. **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.
- F19. **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
- F20. **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
- F21. **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
- F22. **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.
- F23. **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
- F24. **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.
- F25. **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

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- G1. **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
- G2. 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
- G3. **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.
- G4. 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.

- G5. 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.
- G6. 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.
- G7. 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.
- G8. 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 116<sup>th</sup> Annual Conference & Exhibition. Orlando, FL
- G9. **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 116<sup>th</sup> Annual Conference & Exhibition. Orlando, FL
- G10. 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 116<sup>th</sup> Annual Conference & Exhibition. Orlando, FL
- G11. 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 116<sup>th</sup> Annual Conference & Exhibition. Orlando, FL
- G12. 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.
- G13. 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.
- G14. 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.
- G15. 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
- G16. 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
- G17. 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
- G18. **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.

- G19. **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.
- G20. Doran, E., P. King\*, B. Antonaczak\*, 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.
- G21. **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>
- G22. **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.
- G23. Davis, B., and **G. Rowangould** (May 6, 2022) CCRPC Bike Count Program. Vermont Walk/Bike Summit, Middlebury, VT.
- G24. **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).
- G25. **Rowangould, G.** (October 23, 2020) *Challenges to Sustainable Transportation in Vermont*. Graduate seminar series presentation. Department of Civil & Environmental Engineering, University of Vermont
- G26. **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/>
- G27. **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
- G28. 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
- G29. 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 56<sup>th</sup> Paving and Transportation Conference, Albuquerque, NM
- G30. **Rowangould, G.**, R. Nadafianshahamabadi\*, A. Corning-Padilla\* and M. Tayarani\* (January 9, 2019). *Autonomous Vehicle Impacts on Traffic and Congestion in Albuquerque, New Mexico*. Presented at the 56<sup>th</sup> Paving and Transportation Conference, Albuquerque, NM
- G31. **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
- G32. 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
- G33. Nadafianshahamabadi, 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.
- G34. Mohammad, T\*., R. Nadafianshahamabadi\*, 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 55<sup>th</sup> Paving and Transportation Conference, Albuquerque, NM

- G35. 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 54<sup>th</sup> Paving and Transportation Conference, Albuquerque, NM
- G36. **Rowangould, G.** (May 10, 2016) *Transportation Planning for More Resilient Communities.* University of New Mexico First Resilience Colloquium, Albuquerque, NM
- G37. **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 53<sup>rd</sup> Paving and Transportation Conference, Albuquerque, NM
- G38. 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
- G39. **Rowangould, G.** (January 7, 2014). *Public Investment in Private Freight Rail Infrastructure.* Presented at the 51<sup>st</sup> Paving and Transportation Conference, Albuquerque, NM
- G40. **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.
- G41. **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.
- G42. **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.
- G43. **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

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<b>Vermont Agency of Transportation</b> GHG Reductions due to VT Clean Transportation Incentive Programs Role: Co-PI, Funding: \$95,000	Awarded 4/2024
<b>Chittenden County Regional Planning Commission</b> Chittenden County Transportation Sustainability Assessment Tool and Data Dashboard Role: PI, Funding: \$71,561	10/2023 - current
<b>Eastern Research Group, Inc (ERG)/U.S. Environmental Protection Agency</b> Environmental, Analytical, Research, Technical, and Hybrid (EARTH) Support Services Role: PI, Funding: \$76,212	7/2023 – current
<b>U.S. Department of Transportation</b> 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
<b>U.S Department of Energy</b> Enabling Place-Based Renewable Power Generation using Community Energysshed Design	6/2023 - current

Role: Co-PI, Funding \$4,290,092	
<b>Chittenden County Regional Planning Commission</b> South Burlington Climate Action Plan Performance Measurement Role: PI, Funding: \$4,647 (as TRC income-expense project)	2/2023 – 7/2023
<b>TIDC University Transportation Center, UMaine/U.S. DOT</b> 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
<b>NCST University Transportation Center, UC Davis/U.S. DOT</b> Evaluating Support for Mileage Based User Fees in Diverse Communities and the Value of Providing Contextual Information Role: PI, Funding: \$85,000	8/2022 – 8/2023
<b>NCST University Transportation Center, UC Davis/U.S. DOT</b> Identifying Opportunities and Implementation Barriers to Heat Mitigation Through Application of Novel Materials and Improved Pedestrian Infrastructure Design Role: Co-PI, Funding \$37,000	8/2022 – 9/2023
<b>National Science Foundation</b> Uncovering Barriers to Low-Carbon Travel to Strengthen Transportation Infrastructure in Rural Communities Role: C-PI, Funding \$750,000	8/2022 - current
<b>Chittenden County Regional Planning Commission</b> Evaluating Technology, Policy and COVID-19 Disruptions to Household Travel in Chittenden County Role: PI, Funding: \$40,000	6/2022 – 6/2023
<b>Vermont Agency of Transportation</b> Value of VTrans Research: Quantitative and Qualitative Analysis Role: PI, Funding \$13,556	10/1/2021 – 8/31/2022
<b>Environmental Defense Fund</b> National Near Roadway Vehicle Emission Exposure Risk Analysis Role: PI, Funding: \$75,367	6/2021 – 12/2022
<b>National Oceanic and Atmospheric Administration</b> 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	6/2021 – 5/2023
<b>Chittenden County Regional Planning Commission</b> CCRPCP Bicycle Count Program Evaluation and Data Analysis Role: PI, Funding: \$57,000	7/2020 – 6/2021
<b>TIDC University Transportation Center, UMaine/U.S. DOT</b> Evaluation of processed glass aggregate for utilization in transportation projects as a sand borrow Role: Co-PI, Funding \$168,752	9/2020 - current
<b>NCST University Transportation Center, UC Davis/U.S. DOT</b> Evaluating Heterogeneity in Household Travel Response to Carbon Pricing: A Study Focusing on Small and Rural Communities Role: PI, Funding: \$170,000	9/2020 – 12/2022
<b>U.S. Environmental Protection Agency</b> People, Prosperity and Planet (P3) Student Design Competition: Cool and Sustainable Sidewalks Role: PI, Funding \$24,999	10/1/2019 – 9/30/2022

<b>TranSET University Transportation Center, Louisiana State University/U.S. DOT</b> ABQ Streets Project: Creating Alternative Residential Street Designs Role: PI, Funding: \$50,000	8/2019 – 8/2021
<b>National Science Foundation</b> Center for Water and Environment Phase II Role: key participant, Funding: \$5,000,000	7/2019 – current
<b>U.S. Environmental Protection Agency</b> 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 Role: PI, Funding: \$335,605	1/2016 – 12/2021
<b>TranSET University Transportation Center, Louisiana State University/U.S. DOT</b> Evaluating how the Quality of Pedestrian Infrastructure Affects the Choice to Walk Role: PI, Funding: \$50,000	3/2018 – 10/2019
<b>New Mexico Department of Transportation</b> Management of the New Mexico Local Technical Assistance Program Role: PI, Funding: \$146,500	4/2019 – 9/2019
<b>Albuquerque International Balloon Fiesta Inc., Albuquerque, NM</b> Balloon Fiesta Transportation Analysis and Planning Role: Co-PI, Funding: \$64,500	1/2019 – 8/2019
<b>New Mexico Department of Transportation</b> Management of the New Mexico Local Technical Assistance Program Role: PI, Funding: \$430,000	4/2017 – 4/2019
<b>City of Albuquerque, NM</b> Sustainable and Equitable Financing for Pedestrian Infrastructure Maintenance (match for TranSET grant) Role: PI, Funding: \$6,000	9/2017 – 6/2019
<b>TranSET University Transportation Center, Louisiana State University/U.S. DOT</b> Sustainable and Equitable Financing for Pedestrian Infrastructure Maintenance Role: PI, Funding: \$15,000	5/2017 – 12/2018
<b>New Mexico Department of Transportation</b> Autonomous Vehicle Traffic Impact Scenario Analysis: Central New Mexico Case Study Role: PI, Funding: \$79,962	7/2017 – 8/2018
<b>New Mexico Department of Transportation</b> 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
<b>New Mexico Department of Transportation</b> Local Technical Assistance Program (LTAP) Work Plan Development Role: Co-PI, Funding: \$19,323	8/2016 – 11/2016
<b>New Mexico Department of Transportation</b> CMAQ Best Practices Scan Role: PI, Funding: \$54,829	11/2016 – 4/2017
<b>U.S. Department of Transportation</b> Central New Mexico Climate Change Scenario Planning Project	3/2014 – 12/2014

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