Overview
One of the objectives of the Chittenden Area Transportation Management Association (CATMA) is to encourage commuters to shift from driving to more sustainable travel modes such as walking, bicycling, and public transit. To understand barriers to switching to greener modes among UVM employees, we evaluated CATMA’s 2019 Transportation Survey to compare the modes that UVM employees currently use to the modes that they prefer to use. We also identify barriers to switching to preferred travel modes. The results show untapped potential for divesting from driving, with respondents citing several mitigatable barriers.

Key Research Findings

**Potential for mode shift:** Over one fifth (21%) of UVM employees reported that they do not use their preferred mode. 17% of employees reported that they drive but would prefer to ride a bicycle, bus, or walk, while 3% indicated that they would prefer to drive although they currently ride a bicycle, bus, or walk. The remaining 1% reported that they ride a bicycle, bus, or walk but would prefer to use another green mode.

**Barriers to mode shift:** Many respondents who wish to walk or ride a bicycle indicated that bicycle and pedestrian infrastructure in Burlington feels unsafe. Others cited hilly terrain and winter conditions as a barriers to walking bicycling, and using transit. Of those who wish to drive, many noted that the availability of parking permits or the distance from parking to their work location was a barrier. A summary of barriers commonly cited by respondents who are not using their preferred mode is shown on page 2.

Policy Implications
Strategies that may address barriers to green commuting at UVM include investing in and maintaining bicycle and pedestrian infrastructure, bicycle winterization programs (education, equipment, and maintenance), adjusting bus routes, and programs that increase the use of e-bikes. Many of these strategies are already in place, but may benefit from additional resources or targeted investments in specific locations.

Evaluating of the location of commuters citing each type of barrier and direct engagement with UVM students and employees can highlight specific locations to target for improvements and provide an indication of the desirability of different strategies to address barriers.

Acknowledgments
This work was supported by the USDOT through the National Center for Sustainable Transportation at UC Davis and the University of Vermont and through UVM’s Research Experience for Undergraduates (REU) program. CATMA provided the research team with access to the survey design and data.

Further Reading
Mode Constrained Travel at UVM: Travel Preferences, Barriers, and Policy Implications
Sierra Espeland and Dana Rowangould
University of Vermont

Barriers to Bicycling
- Injury or disability
- Shower facilities unavailable at destination
- Unsafe infrastructure and traffic
- Unable to bring bicycle on transit, lack of connection to bicycle infrastructure

Barriers to Driving
- Difficulty or discomfort driving in inclement weather
- Cost of vehicle ownership or usage
- Parking option distance from destination, wait list for permit, parking restricted by employer

Barriers to Transit
- Injury or disability
- Winter conditions: snow, ice, cold
- No available route, bus stop too far
- Lack of safety at bus stops due to long wait times, unfamiliarity

Barriers to Walking
- Sweat from physical exertion
- Injury or disability
- Traffic congestion, unsafe pedestrian infrastructure

Follow the UVM TRC:
[websites]