

Semi-Annual Progress Report for University Transportation Centers

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Project Title: Tier 1 University Transportation Center
Small Urban, Rural and Tribal Center on Mobility (SURTCOM)

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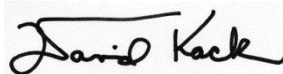
Recipient Organization: Montana State University
Bozeman, MT 59717

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Signature:



1. Accomplishments

What are the major goals and objectives of the program?

The mission of the Small Urban, Rural and Tribal Center on Mobility (SURTCOM) is to conduct research and provide leadership, education, workforce development and technology transfer in all transportation-related aspects of mobility for people and goods, focusing specifically on small urban, rural and tribal areas. The Western Transportation Institute (WTI) at Montana State University (MSU) is the lead institution, with consortium members including Eastern Washington University (EWU) and the Small Urban and Rural Center on Mobility (SURCOM) at North Dakota State University (NDSU).

What was accomplished under these goals?

From April 2023 through September 2023:

- WTI/MSU continues providing technical assistance to rural and tribal communities who want to increase biking and walking in their towns. The *Building Active Communities Technical Support* project identifies changes in infrastructure that can increase the number of people using active modes of transportation. WTI/MSU staff have conducted pop-up traffic calming projects in Big Sky and Hamilton, Montana. Staff also continue to help with Safe Routes to School efforts in Montana.
- WTI/MSU completed work with the Idaho Transportation Department (ITD), when transit service was restored in Idaho Falls, Idaho (see [GIFT On-Demand Rides | Idaho Falls, ID \(idahofallsidaho.gov\)](https://idahofallsidaho.gov)) and microtransit services were initiated in Twin Falls, Idaho (see the story [here](#)).
- Work continues with Transportation Demand Management (TDM) efforts in the greater Bozeman (Montana) area. WTI/MSU had assisted Gallatin County and the City of Bozeman with TDM efforts under the previous SURLC UTC and is continuing efforts through SURTCOM. The community of Big Sky (Montana) and major employers in that area had a significant increase in the promotion of Go Gallatin's TDM resources this past winter.
- WTI/MSU continues effort on a small research project (*Implication of School Format on Women in STEM*) documenting the importance of K-12 school format (e.g., online, hybrid, in-person, "pandemic pod") for women in science, technology, engineering, and mathematics (STEM) who have K-12 children. The three separate surveys, administered to women in STEM-related jobs at three discrete periods of time to capture the impact that changes in K-12 school format have on their work and family lives are completed and data analysis is occurring. The results are intended to provide input on how future policies can better support women who work in STEM fields, including transportation.
- WTI/MSU completed the project *Effectiveness of Highway Safety Public Education at Montana Motor Vehicle Division and Vehicle Registration Stations by Streaming a Variety of Safety Content*. The purpose of this project was to research which safety messages, if any, affect those who watch the videos (i.e., increase safety behavior). The final report for this project can be found [here](#).

- WTI/MSU completed work on the *Montana MPO Travel Survey Analysis* project. The purpose of this study was to provide additional information and greater understanding of transportation planning and travel behavior in the areas served by the Billings-Yellowstone County Metropolitan Planning Organization and the Missoula Area Metropolitan Planning Organization, two of the three metropolitan areas in Montana. The report for this project is under final review and a link to the report will be provided in the next semi-annual report.
- WTI/MSU completed work on the *Statewide GNSS RTN System* project. The objectives of this project were to perform an assessment of the various alternative business models and to recommend the most appropriate business model(s) for MDT to pursue in the planning and development of a Statewide Global Navigation Satellite System (GNSS) Real-Time Network (RTN) system. The final report for this project can be found [here](#).
- WTI/MSU staff completed working with the University of Florida on NCHRP 08-135, *Reliability and Quality of Service Evaluation Methods for Rural Highways*. The objectives of this research were to: 1) develop reliability and quality of service predictive methodologies for rural road facilities to account for the new context and functional classifications of the Green Book, and 2) develop a guidebook on application of the methodologies for a broad range of users. The final report for this project is being reviewed, and a link to the report will be provided in the next semi-annual progress report.
- Working with Battelle, staff from WTI/MSU completed work on the *Traffic Incident Management (TIM) Strategies for Rural Environments* project. The objectives of this FHWA research project were to research the unique challenges, good practices, and opportunities necessary to assist rural responders and motorists to improve safety and incident mitigation of rural roadways. The final report/deliverables are being reviewed by FHWA.
- WTI's Community-engaged and Transformational Scholarship (CATS) program facilitates course-based student projects based on community needs. For academic year 2022-23, CATS partnered with the HRDC, a local non-profit which provides a wide range of services in Montana communities to address community needs of housing, food and nutrition, childcare, and transportation. Over the reporting period, undergraduate and graduate students worked with the HRDC to expand Streamline transit system ridership, assess service expansion needs, and design community spaces.
- WTI continued working with the National Association of Development Organizations (NADO) on technical assistance projects funded through the U.S. Department of Agriculture (USDA). On-going projects are currently located in communities in Southeast Arizona, Southern Ohio, Southeastern Utah, Southern Georgia, Southwest New Mexico, Southwest Missouri, the Upper Peninsula of Michigan, and the White Earth Indian Reservation in Minnesota.

- WTI is finalizing the report for the project *In Search of Simultaneous Benefits of Infrastructure Provisions on Freight & Bicycle Movements*. The purpose of this project was to research rural roadway measures (e.g., wider shoulders, separated facilities) that could increase freight efficiency and safety (e.g., reduce run off the road incidents) while offering bicyclists simultaneous benefits (e.g., reduced traffic-related injuries and fatalities, reduced particulate matter inhalation). In addition to roadway measures, this project will also review vehicle characteristics (e.g., freight vehicle blind spot warnings) and related policy measures that could reduce freight-bicyclist conflicts on rural roadways. A link to the report for this project will be provided in the next semi-annual report.
- WTI completed the project *Insights to Support Transportation Equity in Rural America: A Primer and Practical Compilation of Concepts, Resources, Tools, and Reforms*. The final report for this project can be found [here](#).
- WTI/MSU, in partnership with the Center for Large Landscape Conservation (CLLC), completed work on the project *US-191/MT-64 Wildlife & Transportation Assessment*. US-191 is a two-lane highway that connects Bozeman to Big Sky (Montana) and this project assessed the extent of wildlife-vehicle collisions (WVC) along this corridor (a significant safety issue) and what solutions should be implemented. The report for this project can be found [here](#).
- WTI/MSU has completed work on the project *West-wide Assessment of Cost-effective Opportunities for Mitigating Wildlife-Vehicle Collisions* (WVCs). In another collaboration with the Center for Large Landscape Conservation, this project takes a systematic approach to identifying WVCs with large mammals in the 11 western states (e.g., Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming) and applying cost values to each collision, allowing for the identification of highway segments where the economic benefits of providing mitigation for wildlife surpass the costs of collisions. The report for this project is [here](#).
- WTI/MSU neared completion on the project *Technical Support to Increase Safety for People Walking and Biking in Big Sky*, which will help the Big Sky Community Organization determine what improvements may be needed to improve the safety of those walking and biking in the Town Center area of Big Sky.
- WTI/MSU continued work on the project *Network Screening on Low-Volume Roads: Empirical Validation of a New Proposed Methodology*. The objective is to validate the newly proposed low-volume roads network screening methodology using extensive field data to assess the effectiveness of the proposed method and its suitability for implementation in Montana and the northwest region.
- WTI/MSU, EWU and SURCOM/NDSU are all working as part of a team (with the KFH Group as the lead) on the NCHRP 08-147/TCRP B-49 project *Improving Public Transportation in Rural Areas and Tribal Communities*. The output of this project will be a guidebook that will assist those operating and managing public transportation (transit) systems in rural areas and in tribal communities.

- **Margo Hill (EWU) was appointed to the Advisory Committee on Human Trafficking (AHT) Training and Awareness Subcommittee by the U.S. Department of Transportation's (DOT) Office of Aviation and International Affairs.**
- Work continued with the EWU project, *The Status and Issues for American Indian Transit in the West*. Beginning with a 2012 report, the EWU team has sought to conduct a "state of tribal transit" update, including the identification of critical issues and an assessment of western tribes in relation to transit.
- *The Impact of the Automobile on American Indian Reservations*, an EWU project, saw further progress. This report will assess the culture, use, and impact of the automobile on land use and reservation design, which will inform efforts to address unmet transportation needs.
- *Mobility on American Indian Reservations: A Tribal Context for Transportation*, an EWU project, continued its progress. This project will provide a perspective on mobility, including historic change from successful tribal specific cultures pre-contact to contemporary mobility related to American Indian reservations to other emerging transportation and key issues. An important component of this work is to understand the dynamics of mobility, particularly within tribal and community cultures, access, needs, and issues.
- EWU staff continued work on *Best Cases for Tribal Transportation Safety: Media, Planning and Action*. These small research projects are underway to support tribes on how to safely provide mobility and raise awareness of the importance of mobility.
- *Tribal-State Relations in Transportation: A Western States Analysis, Part 1: Evidence from Nine States* and *Part 2: Jurisdiction Overlaps* are two parts of a new project started by the EWU staff that will analyze how well states (and their departments of transportation) recognize the sovereignty of Tribal Governments, and how well these agencies work with the tribes to address their transportation needs. A survey related to the first part of the project is underway with tribes in the western United States to provide a quantitative approach/framework. The COVID-19 pandemic has delayed the survey analysis longer than expected, but it is currently being finalized.
- EWU staff continued work on the project *Data Driven Planning and Tribal Implementation for Tribal Safety on Reservations*. This project will analyze how Washington State traffic safety programs may empower tribal programs and implement a culture of safety.
- EWU staff continued work on the project *The Relationship between Reservation Geography & Jurisdiction Overlaps* to highlight why jurisdiction matters to Indian Country. This project attempts to correlate the effects of jurisdictional overlap with federally recognized continental American Indian Reservations and Tribal Lands through examination of how they are divided across states, counties, school districts, and congressional districts. This is accomplished primarily through GIS. Staff are investigating instances of these jurisdictional overlaps with the 397 census-identified continental reservations and tribal areas.

- The EWU team is working on several additional research reports, including *Dangers Related to Mobility for Tribal Women (MMIW)*; *Human Trafficking as Related to Transportation*; *Effects of Climate Change on Tribal Mobility on Land & Water Based Tribes: Sustainability, Resiliency, & Mobilizing for Climate Change*; and an *Environmental Review on Colville Confederated Tribes Roads Damage Due to Climate Change: A Preventative Measures and Cost Analysis Report*.
- SURCOM/NDSU completed the report *Comparing Public Transportation Services for Rural States in the Upper Midwest and Great Plains Region* for the North Dakota Department of Transportation (NDDOT). This study compared the public transportation available in North Dakota, South Dakota, Montana, Wyoming, Nebraska (excluding the Omaha metro area), and Minnesota (excluding the Twin Cities metro area). The study found that overall, North Dakota performs well by some measures and not as well by others, but the level of service in the state is comparable to what is found in surrounding states. The report is available [here](#).
- SURCOM/NDSU completed the project *Workforce Development and Driver Shortages in Small Urban and Rural Transit* in March 2023. The study addressed the workforce shortage needs and focused on the need for qualified drivers. The report is available [here](#).
- SURCOM/NDSU completed the work on the project *Interest of Shared Mobility and Emerging Vehicle Technologies in Rural America*. The report was completed in December 2022. This project documented and analyzed the interest and adoption patterns for shared mobility and emerging vehicle technologies in rural communities. The report is available [here](#).
- SURCOM/NDSU completed the project *Understanding How Bicycle Facility Characteristics and the Built Environment Influence Bicycle Use in a Small Urban Area: Case Study of Fargo-Moorhead*. The study used bicycle count data and developed a model to estimate the relationships between bicycle facility and street characteristics and bicycle usage. The report is available [here](#).
- SURCOM/NDSU completed work on the project *Pedestrian User Experience at Roundabouts* for the Minnesota Department of Transportation (MnDOT). The objectives of the research were to understand pedestrian user experiences at roundabouts, identify how they can be enhanced through various pedestrian treatments, and develop related decision tools and guidance. The final report was edited and sent to MnDOT for final (their) formatting. However, a link to the report is available [here](#).
- SURCOM/NDSU is working on the project *Utilizing Public Transportation to End Food Insecurity in the Rural and Small Urban Areas by Providing Better Access: A Case Study of Rural Counties in North Dakota*. This study includes maps of all the grocery, convenience stores, and food pantries within each county as well as the transit service available to access the stores. The project will be completed during this next reporting period.

- SURCOM/NDSU has completed the study, *Impacts on Health in Rural and Small Urban Areas* and it is currently out for review. A link to the final report will be provided in the next semi-annual progress report.
- SURCOM/NDSU started the research project *Designing an Electric Transit Bus Network*.

What opportunities for training and professional development has the program provided?

The program has provided opportunities for training and professional development through funding for staff to attend conferences such as the 4th National Summit on Rural Road Safety and the 2023 National Transportation in Indian Country Conference, as well as other conferences and training opportunities (including webinars and online trainings).

How have the results been disseminated? If so, in what ways?

Research results have been disseminated through the presentations and publications noted herein, the SURTCOM website, and the websites of the SURTCOM partners (EWU & NDSU). In addition, videos were created for all the SURCOM/NDSU reports published in 2020 and later, and are available on the SURCOM website and on the Upper Great Plains Transportation Institute's [YouTube channel](#).

What do you plan to do during the next reporting period to accomplish the goals and objectives?

- On-going projects will begin to wrap up, as we are in a one-year no-cost extension period for SURTCOM.
- Dissemination of research results will continue to occur through national conferences and webinars.

2. Participants & Collaborating Organizations

What organizations have been involved as partners?

- Eastern Washington University and North Dakota State University are partners/collaborators in SURTCOM.
- MSU/WTI, SURTCOM lead, is working with the National Association of Development Organizations (NADO) on mobility/transit projects that incorporate seven communities/areas, which are fully funded by NADO (through a grant from USDA).
- WTI/MSU completed a project with ITD to implement or modify public transportation in two Idaho communities.
- WTI/MSU is collaborating with multiple communities in Montana on pop-up traffic calming projects. In addition, WTI/MSU is working with multiple departments within the City of Bozeman (MT) on pop-up projects, as well as the City's Transportation Demand Management (TDM) efforts.

- The Washington State DOT (WSDOT) has worked with EWU for several years and continues that collaboration.
- Additional EWU partners include the Affiliated Tribes of Northwest Indians (ATNI), numerous individual tribes, the Bureau of Indian Affairs (BIA), and the Federal Highway Administration (FHWA).
- The Montana Department of Transportation (MDT) is working on four projects with SURTCOM lead, WTI/MSU.
- SURTCOM/NDSU works with the National Transit Institute (NTI) and National Rural Transit Assistance Program (National RTAP) on various projects.
- SURTCOM/NDSU worked with the North Dakota Department of Transportation (NDDOT) to look at North Dakota mobility services and transit systems and how well they serve the needs of North Dakota residents. The report for that project is noted herein.
- SURTCOM/NDSU worked with the Minnesota Department of Transportation to conduct a study on roundabouts. The report for that project was noted in a previous section.
- WTI/MSU works with FHWA, as WTI continues leading the operations of the National Center for Rural Road Safety (also known as the “Rural Safety Center”).
- SURTCOM/NDSU (Jill Hough) serves as the University Liaison for the American Public Transportation Association’s Research and Technology Committee. Monthly leadership meetings are held. Dr. Hough helped identify and select the keynote speaker for the APTAtech Conference held August 14-17. The speaker was Aaron Steinfeld from Carnegie Mellon University (a UTC). In addition, Hough provides lists of completed UTC public transportation related reports to the Research and Technology Committee meetings.

Have other collaborators or contacts been involved?

SURTCOM’s Advisory Board consists of one representative (each) from the Montana, North Dakota, and Washington (state) DOTs, three tribal representatives, and one person from NADO. The Board receives SAPR reports and is encouraged to submit topics/issues for potential research projects. Further, staff from SURTCOM organizations attend meetings of relevant TRB Committees and other organizations (such as ATNI), where issues/topics are discussed, and potential projects identified.

3. Outputs

Publications, conference papers, and presentations

Publications

Al-Kaisy, A. and Raza, S. (2032) "A Novel Network Screening Methodology for Rural Low-Volume Roads," *Journal of Transportation Technologies*, Scientific Research Publishing, 13, 599-614.

<https://doi.org/10.4236/jtts.2023.134026>

Al-Kaisy, A., and Doruk, D. (2023) "Capacity at All-Way Stop Control Intersections: Case Study," *Transportation Research Records*, Volume 2677, Issue 8, pp. 148-157.

<https://doi.org/10.1177/03611981231155899>

Conference Papers

- None at this time.

Policy Papers

- None at this time.

Presentations

April 2. Margo Hill (EWU) presented *Tribal Connections: Perspectives in Tribal Transportation Planning* at the National Planning Association Conference, Philadelphia, PA.

April 4. Matt Madsen (WTI/MSU) presented *Rural Traffic Calming and Place Making: A Public Health Approach* at the Montana Public Health Association Annual Conference, Helena, MT.

April 18. Matt Madsen (WTI/MSU) provided a guest lecture *The Built Environment, Transportation, & Health*, to a Master of Public Administration class focused on The Politics of Community Development, Bozeman, MT.

April 20. Margo Hill (EWU) presented *Tribal Sovereignty and Tribal Engagement: How to do Business with Tribes* during the Washington Transportation Professionals Forum and Peer Exchange webinar.

April 27. Rebecca Gleason (WTI/MSU) provided a guest lecture *Sustainable Transportation* and conducted a walk audit with the PSCI 447: The Politics of Community Development Making class, Bozeman, MT.

April 27. Margo Hill (EWU) presented *Amplifying Indigenous Voices in Transportation* on behalf of the Northwestern TTAP Center during the Western Regional NLTAPA Meeting, Long Beach, CA.

January 19 through May 11. Rebecca Gleason and Matt Madsen (WTI/MSU) taught the class *Sustainable Transportation and Community Health* (ECIV 491) at Montana State University (Bozeman, MT). This class brought together students in engineering, community health, planning, and policy disciplines to study the relationship between transportation and public health.

May 17. Margo Hill (EWU) presented *Right of Way Processes and Guidelines* during the NW Tribal Transportation Symposium, Airway Heights, WA.

May 25. Margo Hill (EWU) presented *Doing Business with Tribes* during the Oregon Public Purchasing Conference, Redmond, OR.

During the ASCE International Conference on Transportation and Development, June 14-17, Austin, TX, Ahmed Al-Kaisy (WTI/MSU) presented *A High-Level Assessment of Statewide GNSS-RTN Business Models and Investigation of Roundabout Influence Areas Along Rural and Suburban Corridors*.

June 21. Ahmed Al-Kaisy (WTI/MSU) presented *Identifying Safety Improvement Sites on Low-Volume Roads: Heuristic Safety Models* at the 9th International Symposium on Transportation Data and Modelling (ISTDM2023), Ispra, Italy.

June 30. Margo Hill (EWU) presented *Challenges Tribal Communities Face in Adapting to Climate Change* during the Indigenous Community Planning Workshop at Western Washington University, Bellingham, WA.

July 13. Rebecca Gleason (WTI/MSU) provided a guest lecture *Sustainable Transportation* and conducted a walk audit with participants of the Research Experience for Teachers summer program at Montana State University, Bozeman, MT.

July 31. Jill Hough (SURCOM/NDSU) presented *Public Transportation Research by the University Transportation Centers Program* at APTA's Technology Conference, APTatech, Anaheim, CA.

During the Rural Safety Summit in Oklahoma City, OK, September 11-14, Matt Madsen (WTI/MSU) presented *Traffic Calming and Place Making for Rural Communities* and was part of the Ask the Experts panel discussion around bicycle and pedestrian infrastructure for rural communities. Natalie Villwock-Witte (WTI/MSU) presented *Walk, Bike, and Roll!: Working with Myriad of Partners to Offer Active Transportation Workshops* and was part of the panel for Ask the Experts – Connecting bike/ped access with downtown revitalization. David Kack (WTI/MSU) was part of the panel for Ask the Experts – Transit and Mobility.

September 19. Jennifer MacFarlane (WTI/MSU) presented *An Audit of Health-Related Performance Metrics* at the Montana Association of Planners annual meeting, Butte, MT.

September 21. Natalie Villwock-Witte (WTI/MSU) presented *Multi-Modal Options for Addressing Rural Transportation Equity Needs* at the Smart Rural Seminar in Grand Rapids, MN.

Natalie presented at the ITE Mountain District Meeting in St. George, Utah, "Counting Bicyclists & Pedestrians Along a Rural US Highway in New Mexico."

During the Montana Association of Planners Conference, Butte, MT, September 19-21, Matt Madsen (WTI/MSU) presented *Community Liaisons and the PRAT Planning Process; Health in All Policies – Planning for Health* (two sessions); and *TDM – It's Not Just For Work, It's For Recreation Too*.

During the National Transportation in Indian Country Conference (NTICC) in Anchorage, AK, September 25-28, Margo Hill (EWU) presented *The Intersection of Human Rights, Traffic Safety, and Human Trafficking*. SURCOM/NDSU's Jill Hough developed, facilitated, and presented at

NTICC's session on *Addressing Food Insecurity in Native American Communities & Exploring Solutions to Access Nutritious Food*. Ranjit Godavarthy from SURCOM/NDSU and Margo Hill from EWU presented at the session. Dr. Margo Hill presented on access to fresh fruits and vegetables, Dr. Godavarthy presented on using alternative modes such as shared-use mobility to access foods, and Dr. Hough presented on food insecurity among the Native American tribes in North Dakota. David Kack (WTI/MSU) along with Jill Hough and Ron Hall (SURCOM/NDSU) presented *Get to Know the University Transportation Center Program*. Jill's presentation included an example of a UTC Native American-related research (an abbreviated discussion of the *Access to Food for Native Americans in North Dakota* project). Kimberly Vachal (NDSU) presented *DUI Recidivism Collaboration/Impaired Driving Prevention* and presented during the Virtual Tours in Tribal Transportation: Hot Topic Mini Session.

September 26. Rebecca Gleason (WTI/MSU) provided a guest lecture *Sustainable Transportation* and conducted a walk audit for the ECHM 405: Energy and Sustainability class, Bozeman, MT.

Website(s) or other Internet site(s)

- SURTCOM website (www.surtcom.org)
- EWU's SURTCOM related website (<https://www.ewu.edu/css/surtcom/>) has updated contact information, new lectures, outreach with lectures and PowerPoint presentations, and listings of on-going research.
- NDSU's Small Urban and Rural Center on Mobility website (<https://www.ugpti.org/surcom/>) includes project reports and video overviews.

New methodologies, technologies, or techniques

Nothing to Report

Inventions, patent applications, and/or licenses

Nothing to Report

Other products, such as data or databases, physical collections, audio or video products, application software or NetWare, analytical models, educational aids, courses or curricula, instruments, equipment, or research material

Nothing to add that was not noted in other sections.

4. Outcomes

SURTCOM staff present the findings from research projects related to the SURTCOM theme to the maximum extent possible. The Center has one performance measure to disseminate research deliverables for each research project. This target was met, as the research reports for all the completed projects are posted to the SURTCOM website and provided to the sponsor. Another performance measure was to plan or participate in technology transfer activities that offer implementation or deployment guidance at a broader scale. This was met through presentations at NTICC, as noted elsewhere in this report. The target of hosting or participating in at least one forum per year that offers implementation assistance on a key mobility topic was

met through hosting and presenting at the Rural Safety Summit in Oklahoma City, OK, September 11-14.

Increased understanding and awareness of transportation issues

The project reports and presentations noted herein all help to increase the understanding and awareness of transportation issues, especially issues in rural and tribal areas.

Passage of new policies, regulation, rulemaking, or legislation

Nothing to Report

Increases in the body of knowledge

All completed projects, with their final reports posted or presentation made, increase the body of knowledge related to transportation issues.

Improved processes, technologies, techniques, and skills in addressing transportation issues

While many of the projects noted herein help improve the nation's transportation system, a few specific projects that will help processes and techniques include: *NCHRP 08-135: Reliability and Quality of Service Evaluation Methods for Rural Highways*; and the *Traffic Incident Management (TIM) Strategies for Rural Environments* project.

Enlargement of the pool of trained transportation professionals

EWU, WTI/MSU and SURCOM/NDSU staff taught numerous classes related to planning and/or transportation. Outreach efforts were made to grade school, middle school, and high school students to promote STEM activities and to highlight the need for professionals in the transportation field.

WTI's Community-engaged and Transformational Scholarship (CATS) program facilitates course-based student projects based on community needs submitted by the City of Bozeman. Seventy-two graduate and undergraduate students in ten courses, representing four different academic disciplines, participated in CATS projects over the reporting period. Projects focused on sustainability issues, public participation, and community planning in a fast-growing small urban community.

Adoption of new technologies, techniques or practices

Nothing to Report

5. Impacts

The effectiveness of the transportation system

The main goal of SURTCOM is to enhance mobility of both people and goods in small urban, rural and tribal areas. Through our research and other activities, we seek to:

- Increase access to opportunities that promote equity and economic development through mobility;
- Implement innovative multi-modal solutions in these areas;

- Implement smart cities innovations in small urban, rural, and tribal communities;
- Increase active transportation modes, especially walking and cycling; and,
- Address mobility issues on Federal lands.

Technology transfer (including transfer results to entities in government or industry, adoption of new practices, or instances where research outcomes had led to the initiation of a start-up company)

Working with ITD, WTI/MSU was able to help facilitate the introduction of microtransit in Twin Falls, Idaho, bringing a new transit service that was needed to this community which had recently become a small-urban system (FTA Section 5307 service) after being a rural (FTA Section 5311 service) for more than a decade.

The increase in the body of scientific knowledge

Nothing to Report

6. Changes/Problems

Changes in approach and reasons for change

Nothing to Report

Actual or anticipated problems or delays and actions or plans to resolve them

Since the COVID-19 pandemic delayed some field work (gathering data), and disruptions with travel, projects took longer to complete than originally planned. Thus, the need for the one-year no-cost extension. Further, SURTCOM partner EWU has struggled to hire support staff, and has had some turnover of fiscal staff. This has led to many of their projects taking longer to complete than was first estimated. However, there are no anticipated problems with closing out projects in this final year of SURTCOM.

Changes that have a significant impact on expenditures

Nothing to Report

Significant changes in use or care of human subjects, vertebrate animals, and/or biohazards

Nothing to Report

7. Special Reporting Requirements

Not Applicable