

Semi-Annual Progress Report for University Transportation Centers

Submitted To: Office of the Assistant Secretary for Research and Technology
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Federal Grant Number: 69A3551747122

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

Program Director:
(and Submitting
Official) David Kack, Director
Email: dkack@montana.edu
Phone: 406-994-7526

Submission Date: April 29, 2019

DUNS Number: 6254479820000

EIN Number: 81-6010045

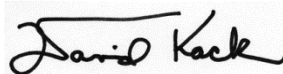
Recipient Organization: Montana State University
Bozeman, MT 59717

Project Grant Period: November 30, 2016 – September 30, 2022

Reporting Period End Date: March 31, 2019

Report Term: Semi-Annual Report #4

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. Montana State University (MSU) is the lead institution, with consortium members including Eastern Washington University (EWU) and North Dakota State University (NDSU).

What was accomplished under these goals?

During the period October 2018 – March 2019:

- WTI/MSU continued work on a small exploratory research project in conjunction with the Montana Manufacturing Extension Center (MMEC) regarding freight/transportation issues for manufacturers in small urban, rural and tribal areas.
- Work continues with two WTI/MSU projects entitled *Using WIFI to Determine Transit Ridership* and *Autonomous Paratransit in Rural Areas*. The first project looks at using devices searching for WIFI signals as a potential low-cost way to count riders on transit vehicles, while the second project is a preliminary review (cost/benefit analysis) of using an autonomous paratransit vehicle in a rural setting.
- The project *Bicycle & Pedestrian Infrastructure Improvements Realized in Communities of Less Than 10,000 People* was completed. The final report can be viewed on the SURTCOM website, and at <https://scholarworks.montana.edu/xmlui/handle/1/15114>
- WTI/MSU began an effort to provide technical assistance to rural and tribal communities that want to increase biking and walking in their towns. The *Building Active Communities Technical Support* project will identify changes in infrastructure that can increase the number of people using active modes of transportation.
- Work began on a project entitled *Developing a Methodology for Implementing Safety Improvements on Low-Volume Roads in Montana*. This project is being conducted by WTI/MSU in conjunction with the Montana Department of Transportation.
- Contracting was being finalized with the Montana Department of Transportation for a project to be conducted by WTI/MSU on *Use of Fluorescent Delineators in Temporary Traffic Control Work Zones*. Expanding the use of this technology will help enhance the safety of motorists, workers and others in small urban work zones, as well as in rural and tribal areas.
- Worked continued with an EWU project entitled *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 the land use and reservation design, which will inform efforts to address unmet transportation needs.
- EWU staff continued working on the project entitled *Mobility & Access on American Indian Reservations in the Western United States: Phase I*. This initial study has documented issues related to distance and access and is establishing a framework for more detailed mobility analysis. The long-term goal is to understand the needs of American Indian reservations and address the transportation systems and resources that serve them.
- *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 under way to support tribes on how to safely provide mobility and raise awareness of the importance of mobility.
- EWU staff began a new project, *Tribal Mobility and Access to Healthcare in Washington State*. This project uses a GIS analysis to determine tribal mobility, isolation, and access to healthcare for land both on and off a reservation.
- *Tribal-State Relations in Transportation: A Western States Analysis* is 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 work with the tribes to address their transportation needs.
- EWU staff began 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.
- The EWU team is working on several additional research reports, including: *Colville Reservation Seatbelt Use, a Focus Group Survey; Dangers Related to Mobility for Tribal Women; A Tribal Short Course on Local Planning; and Tribal Engagement for a Culture of Tribal Traffic Safety*. Richard Rolland, part of the EWU team, presented Tribal Approaches to Emergency Planning and Resilience at the TRB Annual Meeting (January 15, 2019).
- NDSU continues work to develop two Tribal Transit Training modules that will be available online. This work included site visits and interviews with tribal transit staff in Wisconsin (January 14, 2019). This training should improve the effectiveness and efficiency of tribal transit systems.

- Staff at the Small Urban and Rural Transit Center (SURTC) at NDSU completed the *Oklahoma Transit Needs Assessment* (January 31, 2019). The project was fully funded by the Oklahoma Transit Association.
- A survey through the National Transit Institute (NTI) to *Assess Immediate Small and Rural Transit Training Needs* was completed by SURTC/NDSU on February 8, 2019 and a report of the survey results presented to NTI.
- SURTC/NDSU just began work on the project *Tribal Transit Study: Demographic Needs Indicators, Funding Needs, and Livability*. Public transportation needs, the importance of providing critical lifeline services to transit dependent populations, and their contribution towards tribal community livability has not been studied to a significant degree. The objectives of the study are designed to identify research needs for tribal communities and address challenges including: 1) determine ways to understand mobility needs of tribal communities, 2) analyze transit operations and service coverage, 3) study demographic livability indicators, and 4) understand ways to improve livability of residents in tribal communities..
- SURTC/NDSU also began work on *Develop a Revenue Vehicle Rehabilitation or Replacement Predictive Model for Small Urban and Rural Transit Systems*. The primary objective of this research is to improve the process to maintain America's small urban and rural revenue vehicles in a good physical condition, in a cost-effective manner.

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

- SURTCOM's Director (David Kack), as well as one staff from WTI/MSU, and four staff from SURTC/NDSU, attended the Rural Public & Intercity Bus Transportation conference in Breckenridge, CO (September 29 – October 3, 2018).
- The SURTCOM Director and two staff from WTI/MSU attended the National Rural ITS conference in Fort McDowell, AZ (October 21-24, 2018).
- SURTCOM's Associate Director, Margo Hill (EWU), attended the University of Alaska Fairbanks PacTrans/CSET Regional Transportation Conference (October 5-10, 2018).
- Two staff from EWU attended the 2018 National Tribal GIS Conference in Albuquerque, NM (November 6-10, 2018).
- The Director (David Kack) and Deputy Director (Jill Hough) of SURTCOM attended the UTC and CUTC meetings, held in conjunction with the TRB Annual Meeting in Washington, D.C. (January 13, 2019).
- Three SURLC members from Montana State University, two members from Eastern Washington University, and four members from North Dakota State University attended the TRB Annual Meeting (January 13-17, 2019).
- Zach Becker was named SURTCOM's Student of the Year. While unable to attend the UTC/CUTC Banquet on the evening of January 13 due to weather, Zach was able to arrive on January 14 and attend the TRB Annual Meeting.

- SURTCOM Associate Director Margo Hill and another staff member from EWU attended the Affiliated Tribes of Northwest Indians (ATNI) Winter Conference in Portland, OR (January 27-31, 2019). While EWU has been working with the ATNI folks for as long as EWU was a Tribal Technical Assistance Program (TTAP) regional provider, these outreach activities are new with regards to the UTC (SURTCOM).
- Rebecca Gleason (WTI/MSU) attended the Winter Cycling Congress in Calgary, Alberta to learn about best practices to plan, design and maintain cycling infrastructure that can be used year-round (February 6-8, 2019).
- Four staff from EWU attended the Northwestern Tribal Transportation Symposium in Spokane, WA (February 12-15, 2019). This symposium has a new focus, as EWU has transitioned from being a TTAP to being part of SURTCOM.
- Margo Hill, SURTCOM's Associate Director (EWU), attended the Yakima Nation's Traffic Safety Committee meeting March 25, 2019.

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

- See the information in Section 1, Accomplishments for project report information. Highlights include:
 - The final report for the project *Bicycle & Pedestrian Infrastructure Improvements Realized in Communities of Less Than 10,000 People* was posted to the SURTCOM website, and at <https://scholarworks.montana.edu/xmlui/handle/1/15114>. In addition, Natalie Villwock-Witte (P.I) has presented the results to the Minnesota DOT and at the national conference of the Society of Women Engineers.
 - EWU staff presented *Tribal Approaches to Emergency Planning and Resilience* at a lectern session at the TRB Annual Meeting (January 2019), as well as presenting on *Developing a Tribal Traffic Safety Culture* during the Tribal Safety Issues Subcommittee, ABE80(1) meeting. SURTCOM Student of the Year Zach Becker presented a poster on *Health Care Deserts: Identifying Areas of Limited Access on Federally Recognized American Indian Reservations in Washington State* during the TRB Annual Meeting, as well.

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

- Additional projects will begin, based on the SURTCOM UTC proposal and input from the SURTCOM Advisory Committee.

2. Participants & Collaborating Organizations

What organizations have been involved as partners?

- Eastern Washington University and North Dakota State University are partners/collaborators in SURTCOM.
- The Montana Manufacturing Extension Center is partnering on some exploratory research concerning freight issues in small urban, rural and tribal areas.

- 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 two projects with SURTCOM lead WTI/MSU.
- The Minnesota Department of Transportation (MnDOT) is working with SURTCOM partner NDSU on a project. NDSU/SURTC also works with the National Transit Institute (NTI), and additional partners including the Oklahoma Transit Association.

Have other collaborators or contacts been involved?

SURTCOM’s Advisory Board, which consists of one representative (each) from the Montana, North Dakota and Washington (state) DOTs, three tribal representatives, and one person from the National Association of Development Organizations (NADO), receives PPR 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 (ATNI), where issues/topics are discussed, and potential projects identified.

3. Outputs

Publications, conference papers and presentations

Publications

- Final project reports as noted in Section 1, Accomplishments
- *Missing and Murdered Indigenous Women and Girls by Margo Hill* — Spokane Tribal Citizen, Director of EWU Tribal Planning Programs (and SURTCOM Associate Director), Indian Law Newsletter, Volume 27, Number 1 (Spring 2019). Published by the Indian Law Section of the Washington State Bar Association.
- Margo Hill, SURTCOM Associate Director (EWU), was quoted in *Neil Gorsuch joins liberals giving Yakama Nation a Supreme Court victory over state of Washington*, The Spokesman-Review, Spokane, WA. March 21, 2019.

Conference Papers

- Nothing to report

Policy Papers

- Ranjit Godavarthy (SURTC/NDSU) is a panel member on *NCHRP Project 20-102(11): Impacts of Connected Vehicles and Automated Vehicles on State and Local Transportation Agencies*. This project is expected to be completed in September 2019.
- Mr. Godavarthy served as the author for the chapter on transit of the 2019 North Dakota ASCE Infrastructure Report Card.

Presentations

- Margo Hill (EWU) presented on Federal Indian Law at the Washington State APA Conference (October 5, 2018).
- Rob Lynch (SURTC/NDSU) provided sixteen hours of *Transit I* training to 36 staff of the Ben Franklin Transit system in Richland/Pasco, WA (October 16-17, 2018).
- Natalie Villwock-Witte (WTI/MSU) presented *Characteristics and Reported Bicycle & Pedestrian Infrastructure for Communities of Less Than 10,000 People in Maine, Minnesota and New Hampshire* at the Society for Women Engineer's 2018 Conference (October 18-20, 2018). During the same timeframe, Natalie also presented the results of the project to the Minnesota DOT (MnDOT).
- Jill Hough, SURTC/NDSU) presented three hours of training to ten attendees on *Culture Code* as preparation for the NTI Transit Trainers' Workshop (November 1, 2018).
- Rob Lynch presented 1.5 hours of training, *Giving Great Presentations*, to 39 people during the NTI Transit Trainers' Workshop in Seattle, WA (November 11, 2018). Jill Hough provided 3 hours of training to 26 people related to *Culture Code* at the Workshop, as well.
- EWU staff presented *Tribal Approaches to Emergency Planning and Resilience* at a lectern session at the TRB Annual Meeting (January 13-17, 2019), as well as presenting on *Developing a Tribal Traffic Safety Culture* during the Tribal Safety Issues Subcommittee, ABE80(1) meeting. SURTCOM Student of the Year Zach Becker presented a poster *Health Care Deserts: Identifying Areas of Limited Access on Federally Recognized American Indian Reservations in Washington State* during the TRB Annual Meeting, as well.
- At the Northwest Tribal Transportation Symposium (February 12-15, 2019) sponsored by the NW BIA Transportation Division and Eastern Washington University, EWU staff made several presentations, including on the projects *Tribal Mobility and Access to Healthcare in Washington State* and *Tribal Engagement for a Culture of Tribal Traffic Safety*.

Website(s) or other Internet site(s)

- SURTCOM website (www.surtcom.org)
- EWU website (<https://www.ewu.edu/cbpa/programs/urban-regional-planning/surtcom>)
- Small Urban and Rural Transit Center (NDSU) website (<https://www.surtc.org/>)

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

While not completed, NDSU continues to work on training modules for tribal transit. These on-line resources should be available soon.

4. Outcomes

SURTCOM is a relatively new Center with only one completed project. That being said, one performance measure was to disseminate research deliverables for each research project. That target was met, as the research report for the project *Bicycle & Pedestrian Infrastructure Improvements Realized in Communities of Less Than 10,000 People* was posted to the SURTCOM website, as well as distributed to the three State DOTs (Maine, Minnesota and New Hampshire) that were the sponsors of the project. Another performance measure was to plan or participate in technology transfer activities that offer implementation or deployment guidance at a broader scale. The target of hosting or participating in at least one forum per year that offers implementation assistance on a key mobility topic was met when Natalie Villwock-Witte presented *Characteristics and Reported Bicycle & Pedestrian Infrastructure for Communities of Less Than 10,000 People in Maine, Minnesota and New Hampshire* at the Society for Women Engineer's 2018 Conference (October 18-20, 2018).

Increased understanding and awareness of transportation issues

The Northwest Tribal Transportation Symposium (February 12-15, 2019) held in Spokane, WA, helped to highlight a variety of transportation issues regarding tribal transportation, including creating a positive traffic safety culture.

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

Nothing to Report

Enlargement of the pool of trained transportation professionals

EWU staff taught a total of 18 Planning classes and one Public Administration class to a total of 135 students during the Fall 2018 and Winter 2019 quarters at Eastern Washington University. NDSU staff provided six different courses over the reporting period to a total of 223 people.

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 hope 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)

Nothing to Report

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

Nothing to Report

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