

## Program Progress Performance 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: DTRT13-G-UTC46

Project Title: Tier 1 University Transportation Center  
Small Urban and Rural Livability Center (SURLC)

Program Director: David Kack  
Email: dkack@montana.edu  
Phone: 406-994-7526

Submission Date: April 30, 2018

DUNS Number: 6254479820000

EIN Number: 81-6010045

Recipient Organization: Montana State University  
Bozeman, MT 59717

Project Grant Period: September 30, 2013 – September 30, 2018

Reporting Period End Date: March 31, 2018

Report Term: PPPR #9

Signature:



## 1. Accomplishments

### What are the major goals and objectives of the program?

The major goals and objectives of the Small Urban and Rural Livability Center (SURLC) are to conduct research, and provide leadership, education, workforce development, and technology transfer in all transportation related aspects of livability, focusing specifically on small urban and rural areas.

### What was accomplished under these goals?

During the 9th six-month period (October 2017-March 2018) of the Center:

- Work was completed on the 2017 edition of the *Rural Transit Fact Book*. This is the 7<sup>th</sup> edition of the Fact Book, and can be found at: <http://www.surtc.org/transitfactbook/>
- Work was completed on the *Last Mile Commercial Package Delivery as a Revenue Generation Tool for Rural Public Transportation Systems in Wyoming* project. The final report can be found at: [http://surlc.org/wp-content/uploads/2018/02/4W6416\\_FinalReport\\_1802-RS10216-Last-Mile.pdf](http://surlc.org/wp-content/uploads/2018/02/4W6416_FinalReport_1802-RS10216-Last-Mile.pdf)
- Work began on *Automated Transit Technologies: Identifying Challenges and Potential Markets for Applications* at North Dakota State University. This study will seek to understand the transit automation technologies in the context of a transit agency's need for implementing these technologies. It will also seek to understand the requirements and challenges for transit automation gathered from transit agencies, transit planners, and State DOTs; as well as requirements, inputs, and challenges gathered nationally from transit experts. More information can be found at <http://www.ugpti.org/research/projects.php?view=262&program=surtc>
- Work continued on a project entitled *A Systematic Pedestrian Safety Planning Tool for Small Urban and Rural Areas* that will create a tool to help determine safety countermeasures for high pedestrian/vehicle crash areas.
- Work continues on an on-going project (100% match funds) whereby a SURLC staff member acts as the Coordinator for the Big Sky Transportation District, which operates the Skyline public transit system in Big Sky, Montana.
- Work continued on the *Dynamic Warning System to Alert Motorists to Cyclists* project. This project will show how technology can be used to warn motorists of the presence of cyclists on rural roads that do not have separated facilities. This technology has the potential to increase the use of cycling in rural areas by increasing safety for both motorists and cyclists. Installation of equipment at the first pilot project site should occur in April or May 2018
- Work continued on a project named the *Bozeman Area Transportation Demand Management (TDM) Initiative*. Through this project, SURLC will work with Montana State University and the City of Bozeman to implement and increase transportation choices to affect the rate of growth of vehicle miles traveled (VMT) in the area, and

ensure that Bozeman remains a livable community. In fact, the City of Bozeman calls itself “The Most Livable Place” (see [www.bozeman.net](http://www.bozeman.net)).

- Work continued on *the Rural Livability Phase 3 Study* being conducted by North Dakota State University in partnership with the Texas Transportation Institute at Texas A & M. This study is a national survey to evaluate the nexus of transit and livability in rural communities. More information can be found at <http://www.ugpti.org/research/projects.php?view=259&program=surtec>
- Work continued to better understand the Oil Boom and Bust Cycles that occur in Western North Dakota. It is important to understand what happens to rural public transit in these areas as they adjust to the boom and bust of oil, the workers, and the community population. More information can be found at <http://www.ugpti.org/research/projects.php?view=261&program=surtec>
- Work continued on the *Ridesharing in a Rural Environment* project. The purpose of this project is to examine what components of ridesharing business models may be challenged in a rural application, and to explore opportunities in rural areas.
- Work continued on a project entitled *Survey of Culture Amongst Groups of Different Transportation Mode Users to Promote Safety of Inter-Modal Interactions*. The purpose of this project is to survey cyclists, motorists and pedestrians to understand how they view their interactions with people using “other modes” and to determine how users of all modes may change their culture to allow for a safe interaction among all modes that share the roads.

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

- Four staff members and one student from MSU and ten staff members and three students from NDSU attended the TRB meeting, with six staff and one student attending the UTC/CUTC meeting on Sunday, January 7.

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

- Results have been disseminated through project reports (on the SURLC and SURTC websites), and through presentations at conferences (see Section 2. Products).
- Results from the various conferences have been shared in-house, and concepts are being incorporated into possible project ideas.
- Reports from completed projects will be put on the Livability Center’s website, and presentations will be made at applicable conferences.
- Report summaries and materials were made available at each of the following trade shows:
  - The APTA Expo in Atlanta, GA, October 9-11
  - the 2017 National RTAP Conference in Omaha, NE, October 29-November 1.
  - SWATA in Denver, Colorado, March 5-6, 2018

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

- Work will continue on projects already initiated, but not completed. Due to the nature of several projects, which are multi-year projects, it is anticipated that SURLC will request a no-cost extension of one year for the Center.

## **2. Products**

### Publications, conference papers and presentations

#### Publications:

Godavarthy R, Mattson J (in press). Exploring Transit's Contribution to Livability in Rural Communities: Case Study of Valley City, ND and Dickinson, ND. *Journal of Public Transportation*. Accepted: August 2017

Hough, Jill and Ali Rahim Taleqani. (2018). "Future of Rural Transit." *Journal of Public Transportation*. Vol 21 (1): 31-42.

Godavarthy R, Russell ER, Mirzazadeh B (2017). Speed Reduction Mitigation Strategies on Rural Highways at Two-Way Stop Control Intersections and Curves. *Journal of Transportation Technologies*, 7, 423-437.

Mattson J, Godavarthy R (2017). Bike Share in Fargo, North Dakota: Keys to Success and Factors Affecting Ridership. *Sustainable Cities and Society*, 34, 174-182.

#### Presentations:

October 25, 2017, NDSU staff member presented 1.5 hours of training for Ethics during the WYTRANS conference in Jackson, WY.

October 25, 2017, NDSU staff member presented 1.5 hours of training for Performance Measures during the WYTRANS conference in Jackson, WY.

October 25, 2017, NDSU staff member presented 1.5 hours of training for Public Participation during the WYTRANS conference in Jackson, WY.

October 30, 2017, NDSU staff member presented 1.5 hours of training for Hiring and Recruiting at the National RTAP Conference in Omaha, NE.

October 31, 2017, one MSU staff member presented on the Bozeman Travel Demand Management project at the MSU Presidents Executive Council meeting in Bozeman, MT.

November 7, 2017, two MSU staff members served as guest lecturers on "Sustainable Transportation" during a Montana State University ECHM 205CS Energy and Sustainability class taught by Paul Gannon.

November 9, 2017, NDSU staff member presented findings during a .5 hour session from research on Rural Livability Case Studies Phase 1 at the 64<sup>th</sup> Annual North American Meeting of the Regional Science Association International in Vancouver, British Columbia, Canada.

November 27, 2017, one MSU staff member presented Bicycle and Pedestrian Safety to Manhattan, Montana Driver Education class.

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

Nothing to Report

### **3. Participants & Collaborating Organizations**

What organizations have been involved as partners?

North Dakota State University (Small Urban and Rural Transit Center – Upper Great Plains Transportation Institute) is the main partner to Montana State University in the Small Urban and Rural Livability Center. The City of Bozeman and Montana State University are partners in the *Transportation Demand Management Initiative* project, also known as the Bozeman Commuter Project.

SURLC (MSU) worked with the Wyoming Department of Transportation for the *Last Mile Commercial Package Delivery as a Revenue Generation Tool for Rural Public Transportation Systems in Wyoming* project.

Some of the projects that have been conducted by the Small Urban & Rural Transit Center at North Dakota State University are in collaboration with the Texas A&M Transportation Institute (TTI). NDSU also works with the Center for Urban Transportation Research (CUTR) at the University of South Florida, and with the North Dakota DOT.

Have other collaborators or contacts been involved?

Additional collaborators/contacts include members of the Advisory Board, who represent the following organizations: American Association of Retired Persons (AARP); Centers for Disease Control (CDC); Community Transportation Association of America (CTAA); Easter Seals Project Action (ESPA); Environmental Protection Agency (EPA); Federal Transit Administration (FTA); National Association of Development Organizations (NADO); North Dakota Department of Transportation (NDDOT); Transportation Research Board (TRB); and the U.S. Department of Transportation (USDOT).

Note: Members of the Advisory Board from FTA and USDOT act as technical and policy liaisons between the Center and FTA and USDOT. They provide guidance and recommendations on research projects that link DOT priorities and initiatives with the direction of the Center, including information on the technical merits of the research projects that may be initiated by the Small Urban and Rural Livability Center. Advisory Board members are not involved in any financial decisions, and will not be involved in any discussion of future UTC competitions.

#### **4. Impact**

##### The development of the principal discipline(s) of the project

The main goal of SURLC is to show how livability and the livability principles are integrated into our lives. How we design a community, where we site a school, where we build our parks, all have an impact on livability. Through our research and other activities, we work to show how individuals, families and communities can benefit from increasing livability.

##### Other disciplines

Nothing to Report

##### The development of human resources

The West Region Surface Transportation Workforce Center (WRTWC) was established by the Federal Highway Administration to bring together transportation organizations, workforce advocates, and educational institutions to develop partnerships that apply knowledge, experience, and resources to strategically build a strong transportation workforce for the future. The WRTWC, housed at the Western Transportation Institute at Montana State University in partnership with the Upper Great Plains Transportation Institute at North Dakota State University, serves a ten-state Western region: Nebraska, South Dakota, North Dakota, Montana, Wyoming, Idaho, Washington, Oregon, Alaska, and Hawaii. WRTWC and SURLC are collaborating to identify training opportunities that will focus on topics/issues that include transportation and livability.

The Small Urban and Rural Transit Center (SURTC), a partner in the Small Urban and Rural Livability Center, is launching the Advanced Transit Professional Certificate.

##### Physical, institutional, and information resources at the university and/or other partner institution

Nothing to Report

##### Technology transfer (include transfer of results to entities in government or industry, adoption of new practices, or instances where research has led to the initiation of a startup company)

Nothing to Report

##### Society beyond science and technology

Nothing to Report

## **5. 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

Change of primary performance site location from that originally proposed

Nothing to Report

## **6. Special Reporting Requirements**

Not Applicable