

## Program Progress Performance Report for University Transportation Centers

Submitted To: Office of the Assistant Secretary for Research and Technology  
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Project Title: Tier 1 University Transportation Center  
Small Urban and Rural Livability Center (SURLC)

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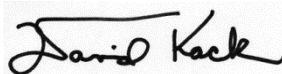
Recipient Organization: Montana State University  
Bozeman, MT 59717

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

Reporting Period End Date: March 31, 2017

Report Term: PPPR #7

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 7th six month period (October 2016-March 2017) of the Center:

- Work continued on the second SURLC project: *Incorporating Livability and the Urban Form into Travel Demand Forecasting Models in High Growth Rural and small Urban Communities* (information on the project can be found on the SURLC website).
- Work was completed on the third SURLC project: *Small Town and Rural (STAR) Guidebook for Cycling and Pedestrian Infrastructure*. The final document, called Small Town and Rural Multimodal Networks [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/small\\_towns/](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/) allows planners and other transportation officials in small urban and rural areas to see how various treatments can be applied to allow for safer movement by bicycles and walking.
- Work continued on the fourth SURLC project: *Evaluation Study of Bike Share Program in Fargo, North Dakota*, which is investigating what happens when a small urban community provides more transportation choices. This project is following the bike share program in Fargo for three years. More information on this project can be found at <http://www.ugpti.org/research/projects.php?view=238>
- Work continued on a project titled *Analysis of the Intercity Travel Network for Creating Livable Small Urban and Rural Communities* that examines the number of cities and towns in each of the 48 contiguous states that have intercity bus service. The final report should be completed by June 2017.
- 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 demonstrate 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 this May or June.

- Work just began 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 (MT) 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 was completed on the 2016 edition of the *Rural Transit Fact Book* in November, and is available on the SURLC and SURTC websites (<http://www.surtc.org/transitfactbook/downloads/2016-rural-transit-fact-book.pdf>)
- Work began on a project named *Senior Livability and Aging in Place*. The objective of this research is to quantify the cost of providing transit to senior citizens living in rural and small urban areas as an alternative to having the seniors relocate to larger communities.
- Work continued on the *Last Mile Commercial Package Delivery as a Revenue Generation Tool for Rural Public Transportation Systems in Wyoming* project. This project will research how rural transit systems may be able to generate revenue by acting as a package delivery system.
- Work was completed on the project *Exploring Transit's Contribution to Livability in Rural Communities: Case Study of Valley City, ND, and Dickinson, ND*. This project examined how transit can contribute to the livability of rural communities. The final report is available on both the SURLC and SURTC websites (<http://www.ugpti.org/resources/reports/downloads/surcl16-004.pdf>)
- Work was completed on the project entitled Livability in State Departments of Transportation ([http://surcl.org/wp-content/uploads/2017/03/State-DOT-Livability-Report\\_FINAL.pdf](http://surcl.org/wp-content/uploads/2017/03/State-DOT-Livability-Report_FINAL.pdf)). This project highlighted how State Departments of Transportation incorporate the livability principles into their goals, objectives and processes.
- Work was completed on the *Developing an Accessible Transportation Environment for the Disabled and People with Special Needs: A Resources and Curriculum Sharing Partnership* project. This project was a partnership between WTI/SURLC and the Moscow State University of Railway Engineering (MIIT).
- Work was completed on the Montana State University Bike Master Plan. Staff from SURLC (MSU) served as technical experts to help develop this document.

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

- One staff member from MSU and three staff members from NDSU traveled to the 22<sup>nd</sup> National Conference on Rural Public & Intercity Bus Transportation in Asheville, North Carolina.

- Four SURLC members from MSU and four SURLC members from NDSU traveled to the 96<sup>th</sup> Annual TRB Meeting in Washington D.C.
- One staff member from SURLC (MSU) traveled to the Winter Cycling Congress in Montreal, Quebec, Canada.

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.

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

- It is anticipated that additional projects will begin during the next reporting period, and work will continue on projects already initiated, but not completed.
- Communications will continue with the Advisory Board in regard to project updates, and input on any new project ideas.
- Three of the projects noted herein will be included in the June 2017 UTC Spotlight Newsletter.
- Jamali\*, A. and Wang, Y. (2017) Estimating pedestrian exposure for small urban and rural areas. Presented at the 96th Annual Meeting of the Transportation Research Board, Washington D.C., January 2017. This paper has been accepted for publication in the Transportation Research Record: Journal of the Transportation Research Board.

## 2. Products

### Publications, conference papers and presentations

- David Kack gave two presentations at the 22<sup>nd</sup> National Conference on Rural Public & Intercity Bus Transportation (October 2-5, 2016), the first being *Livability and the Connection Between Housing and Transportation*, and the second being *Results from the Wyoming Intercity Bus Service Study*.
- Jeremy Mattson (NDSU) presented *Estimating Demand for Rural Intercity Bus Services* at the 22<sup>nd</sup> National Conference on Rural Public & Intercity Bus Transportation.
- Del Peterson and Rob Lynch (NDSU) were selected to be on the Workforce Development Panel at the 22<sup>nd</sup> National Conference on Rural Public & Intercity Bus Transportation.
- Ranjit Godavarthy and Jeremy Mattson (NDSU) provided a webinar through the Center for Urban Transportation Research (CUTR) entitled *Exploring Transit's Contribution to Livability in Rural Communities* (October 27, 2016).
- Rebecca Gleason (SURLC/MSU) provided a guest lecture and walking audit on "Sustainable Transportation" for MSU's Sustainable Energy (ECHM 405) Class on November 10, 2016.
- Natalie Villwock-Witte (SURLC/MSU) gave a presentation to Minnesota Department of Transportation (Mn/DOT), All Planners Group, related to the *Mobility Mindset of Millennials in Small Urban and Rural Areas* project on December 8, 2016.
- Amir Jamali (Ph.D. student at Montana State University) presented at the 2017 TRB Annual Meeting on work to date for the *Systematic Pedestrian Safety Planning Tool for Small Urban and Rural Areas* project. The presentation was titled *Estimating Pedestrian Exposure for Small Urban and Rural Areas*.
- Jeremy Mattson (NDSU) presented both *Estimating Ridership of Rural Demand-Response Transit Services for the General Public* and *Estimating Demand for Rural Intercity Bus* at the 2017 TRB Annual Meeting.
- At the 2017 TRB Annual Meeting, Ranjit Godavarthy (NDSU) presented *Exploring Transit's Contribution to Livability in Rural Communities: Case Study of Valley City & Dickinson, ND*.
- The SURLC project *Mobility Mindset of Millennials in Small Urban and Rural Areas* was featured in the January 26, 2017 edition of Wired magazine <https://www.wired.com/2017/01/rural-millennials-still-dig-driving-well-no-choice/>
- Rebecca Gleason was a speaker at the Bozeman Sunrise Rotary Club (Bozeman, Montana), and discussed "Transportation Options," January 27, 2017.
- Rebecca Gleason was a speaker at the Winter Cycling Congress in Montreal, Quebec, and presented *Case Studies on Small Town and Rural Bicycle and Pedestrian Facilities* on February 9, 2017.
- A webinar on the Small Town and Rural Multimodal Networks document was hosted by the National Center for Rural Road Safety (a WTI/MSU Center). Tim Gustafson and Nick Falbo from Alta Planning and Design (the lead partner on the project) provided the content.

- Rebecca Gleason (SURLC/MSU) was a guest lecturer, presenting *Sustainable Transportation* in MSU's Introduction to Systems Engineering (EIND 142) Class on March 7, 2017.
- Taylor Lonsdale (SURLC/MSU) provided a lecture on bicycle safety to a drivers' education class in Manhattan, MT on March 8, 2017.

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. Alta Planning + Design was the lead partner on the *Small Town and Rural Multimodal Networks* document, also known as the Small Town and Rural (STAR) Guidebook project. The City of Bozeman (MT) is a partner for the *Incorporating Livability and the Urban Form into Travel Demand Forecasting Models in High Growth Rural and Small Urban Communities* project. 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) is working 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.

Have other collaborators or contacts been involved?

Additional collaborators/contact 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. They also provide 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 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 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.

As noted earlier, the report *Workforce Development and Succession Planning to Prepare the Rural Transit Industry for the Future* was completed, which highlights the fact that as America's transportation workforce continues to age, there is an increased need to invest in workforce development to combat the impending retirement tsunami. This is especially true within the small urban and rural transit industry. A national survey of rural transit managers was conducted to determine current workforce development practices as well as succession planning procedures.

SURTC is finalizing a draft of the proceedings from the Federal Transit Administration (FTA) Workforce Development Summit. The purpose of the Summit was to discuss the recruitment and training necessary to ensure that FTA can carry out its mission for the foreseeable future.

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