



Center for Safety Equity in Transportation

If you have a right to get there, you have a right to get there safely.

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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

Project Title: Tier 1 University Transportation Center for Safety Equity in
Transportation (CSET)

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Project Grant Period: December 7, 2016 – September 30, 2022

Reporting Period End Date: March 31, 2018

Report Term: Semi-annual PPR #2

Signature:

Billy Connor
CSET, Director

Abbreviations

- AKDOT&PF – Alaska Department of Transportation and Public Facilities
- ANTHC – Alaska Native Tribal Health Consortium
- AUTC – Alaska University Transportation Center
- CSET – Center for Safety Equity in Transportation
- GIS – Geographic Information System
- ORCID – Open Researcher and Contributor ID
- PI – Principle Investigator
- PPPR – Program Progress Performance Report
- RiP – Research in Progress
- RITI – Rural, Isolated, Tribal, Indigenous
- UAF – University of Alaska Fairbanks
- UHM – University of Hawai'i Manoa
- UI – University of Idaho
- UW – University of Washington

1. Accomplishments

What are the major goals and objectives of the program?

The goal of CSET is to develop context-sensitive transportation solutions that address the safety needs of RITI communities. The Center will develop safety approaches that are sensitive to heritage, traditional ways of knowing and learning, and the preservation of culture. The mission of the Center for Safety Equity in Transportation (CSET) is to provide everyone with fair and equitable access to a safe transportation system.

What was accomplished under these goals?

During the past six months of the project:

- *Advisory board established*

The Advisory board established, and consists of the following members: Anna Bosin, Research Manager and Tribal Relations Liaison, AKDOT&PF; Hillary Strayer, Senior Injury Prevention Specialist, ANTHC; Dr. Brennon Morioka, Deputy Director, Honolulu Area Rapid Transit; Josh Green, MD, Senator, 3rd District of West Hawaii; Darrin Grondel, Director, Washington Traffic Safety Commission; and John Tomlinson, Director of the Office of Highway Safety, Idaho Transportation Department. The Center held the first meeting of the board on December 1 and 2, 2017 in Ketchikan, Alaska.

- *Setting up email list, website, and social media accounts*

The official CSET email, cset.utc@alaska.edu, has been used to communicate with Executive and Advisory Board members as well as project PIs. A contact list was populated and will be maintained for the duration of the project. Center announcements are being distributed through emails and social media posts to various audiences and stakeholders. Activities will be posted to the website in a timely fashion as reflected by the various sections of the website, including *Research, News, Publications, and Workforce development, and data* pages.

- *Communication: gotomeeting and gotowebinar*

An account has been set up for CSET with gotomeeting and gotowebinar. The Center will utilize gotomeeting for project progress reports and updates, advisory board meeting and board of directors. The Center will utilize gotowebinar for project updates to stakeholders and other efforts to disseminate research findings.

- *E-newsletters*

CSET intends to send out quarterly newsletters. The Center distributed its first quarterly newsletter on January 16, 2018. The newsletter is available under the *Publications* section of the website.

- *Research projects*

Ten projects officially began in this reporting period under three primary areas: knowledge gathering, outreach, and baseline data collection. The project information is posted on the

CSET website, and logged in the RiP database. Annual project update meetings will be held each summer, and quarterly reports will be collected in a timely manner.

The CSET director has informed prospective PIs to obtain their ORCID and will follow up to ensure compliance when projects are awarded.

- *Training programs*

None have been developed during this period.

- *Active student internships*

None have been developed during this period.

- *Teacher training and curriculum development activities*

None have been developed during this period.

- *Data collection tools developed*

- A GIS database including all identified risks and supporting technology (cellular, broadband internet) coverages in the state of Idaho was designed and built by a team at UI.
- The database system for safety data management and analysis was designed by a team at UW. New data from Alaska and Idaho were combined with the crash data in Washington State, including the rural crash data, roadway geometric data, and weather condition data.
- A relational database that stores the crash data from the States of Washington, Idaho, and Alaska was designed and built by a team at UHM. They have conducted quality control and data consistency check of the relational databases for rural crashes in RITI communities.
- A GIS-Based Database for RITI communities in Idaho with different layers for state, local, and census roadways networks was built by a team at UI.

- *Outreach, technology transfer, and workforce development*

Outreach, technology transfer, and workforce development activities were not accomplished in this period. For future PPPRs, please see details in the “*What opportunities for training and professional development . . .*” section on page 3, “*How have the results been disseminated . . .*” section on pages 3-4 and the “*Impact*” section on pages 5-6.

- *Sponsorship*

No activities were sponsored by CSET in this period, however, CSET expects to sponsor many workshops, seminars, and other technology transfer activities, which will be listed in future PPPRs.

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

- None during this period.

How have the results been disseminated?

This period has been spent setting up the Center, so the opportunities for dissemination have been few. However, starting next reporting period, CSET staff and researchers will actively involve themselves in various professional meetings and outreach activities to promote the UTC program, enhance public understanding and increasing awareness of safety in RITI communities.

Professional Meetings

During this reporting period, CSET representatives attended the following professional event:

1. 2018 TRB Annual Meeting, Washington D.C., January 7-11, 2018.

Outreach

- *Pearl Creek Elementary STEM Night*, February 1, 2018

CSET staffed a table on road construction, design and safety for elementary school students at Pearl Creek Elementary School's annual STEM night.

- *UAF Engineering Day*, February 24, 2018

CSET presented a road safety activity at UAF CEM's Engineering Open House on the UAF campus. Participants learned about roundabouts, traction and turning radius through the use of remote control and matchbox cars.

- *2018 University of Washington Tribal Leadership Summit*

Researchers from the University of Washington attended the 2018 University of Washington Tribal Leadership Summit. The researchers were able to interview RITI community leaders and establish connections to move projects forward.

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

We will follow the implementation plan to ensure that all the CSET's funded research, education, and outreach activities move forward as scheduled.

- The second round of projects will begin during the next reporting period.
- The Center website, social media presence, and emailing contact lists will be regularly updated and used to promote the Center and its activities.
- CSET's second quarterly newsletter will be distributed during the month of April. The newsletter will highlight Center progress, such as projects starting/concluding, new calls for proposals, STIs, etc.
- Steps will be taken to begin bringing students on as research assistants.
- Steps will be taken to develop training programs, curriculum development activities, outreach, and sponsorship opportunities.
- Center researchers and staff will begin participation and involvement with seminars, workshops and conferences as outlined in YR1 and YR2 efforts.

2. Products

Publications, conference papers, presentations, websites, lectures, seminars, workshops, invited talks

Publications

- *Journal Publications*

None to report at this time.

- *Reports*

None to report at this time.

- *Conference papers*

None to report at this time.

- *Presentations*

- N. P. Belz. *Newtok Alaska Relocation Process - Ribbon Cutting Ceremony Visit*, Region X Transportation Consortium Meeting, University of Washington, Seattle, WA. October 2017.
- Qiong Wu and Guohui Zhang. *CAV Trajectory Formulation for Optimal Intersection Management and Simulation*. Feeway Simulation Subcommittee, the 97th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2018.
- Zhenning Li, Cong Chen, Guohui Zhang, Qiong Wu, Xiaoyue Cathy Liu, Panos Prevedouros, and David Ma. *A Finite-Mixture Random Parameters Model for Exploring the Risk Factors on Driver Injury Severity of Low Visibility-Related Crashes*. The 97th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2018.
- Zhenning Li, Cong Chen, Yusheng Ci, Guohui Zhang, Qiong Wu, Xiaoyue Cathy Liu, and Zhen Qian. *An Empirical Assessment and Investigation of the Driver Injury Severities in Rain-Related Rural Single-Vehicle Crashes Using Mixed and Latent-Class Logit Models*. The 97th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2018.
- Qiong Wu, Yusheng Ci, Cong Chen, and Guohui Zhang. *Examining Driver Injury Severity in Single-Vehicle Crashes: A Two-Step Study Using Cluster Analysis and Mixed Logit Model*. The 97th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2018.

- *Other Products*

- Traffic Safety Quick Facts 2014-2016 (U.S., Alaska, Hawaii, Idaho and Washington), <http://cset.uaf.edu/media/92352/cset-quick-facts-2014-2016.pdf>

- *Website Updates*

- The CSET website is live at cset.uaf.edu.
- The twitter handle @cset_utc has been registered for the Center.

- *Lectures/Seminars/Workshops/Invited Talks*
None to report at this time.

3. Participants & Collaborating Organizations

What organizations have been involved as partners?

- *Collaborative research and financial support*
Newtok Village Council, Newtok Alaska

Have other collaborators or contacts been involved?

Email correspondence been exchanged during the reporting period to discuss research ideas and broad collaborations on research, education, workforce development, and outreach activities between CSET and various collaborators. Plans have been developed for a collaborative effort during the upcoming reporting period to establish common definitions of Rural, Isolated, Tribal and Indigenous for use by the projects funded by the Center.

4. Impact

- *What is the impact on the development of the principal discipline(s) of the program?*
In future PPPRs, this section will briefly introduce the impact on research, educational outreach, and training and development the Center and its projects have had.
- *Other Disciplines –*
CSET is a multidisciplinary Center, and will therefore have an impact in fields outside of the traditional areas of transportation research In future PPPRs, this section will serve to answer the following questions.
- *What is the impact on the development of transportation workforce development?*
- *What is the impact on safety in RITI communities?*
- *What is the impact on physical, institutional, and information resources at the university or other partner institutions and communities?*
- *What is the impact on technology transfer?*
- *What is the impact on society beyond science and technology?*
- *In what ways have researchers and students who are part of or who focus on native or federally recognized tribes and communities been involved?*

5. Changes

- Vicky Wolf has been hired as the outreach coordinator for CSET.