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# UTC Spotlight

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# Exploring Transportation Safety Risks on Tribal Lands

The motor vehicle crash fatality rate is higher for American Indians than for any other ethnic or racial group in the United States. And, even as the number of fatal motor vehicle crashes decreased in the nation as a whole from 1975–2013 by approximately 21 percent, on American Indian reservation roads motor vehicle crashes increased by about 35 percent.

Guillermo Narváez

**Kathy Quick (seated) gathered ideas during a community health services fair at Red Lake Nation in northern Minnesota.**

"These are huge disparities," says Associate Professor Kathryn Quick. "Clearly, this is an issue that needs to be explored." In a project sponsored by the Roadway Safety Institute at the University of Minnesota (UMN), Quick and Research Associate Guillermo Narváez, both with the University's Humphrey School of Public Affairs, are collaborating with American Indian communities to better understand the transportation safety risks on tribal lands and develop strategies to mitigate these risks.

Quick and Narváez are focusing on gathering on-the-ground knowledge about the nature of roadway risks and options to improve safety on reservations in Minnesota. "We're also actively and intentionally trying to build and sustain relationships with tribal communities to contribute to their efforts to address these kinds of issues over the long term," Narváez says.

The researchers are reviewing crash data, coordinating with Minnesota's Advocacy Council on Tribal Transportation, and conducting interviews with key stakeholders. So far, they have had discussions with 12 tribal governments to discuss their tribal transportation concerns. That has grown into collaborations with four tribal governments: the Red Lake Band of Chippewa, Leech Lake Band of Ojibwe, Fond du Lac Band of Lake Superior Chippewa, and Mille Lacs Band of Ojibwe. In those communities, Narváez and Quick are interviewing people responsible for road construction and maintenance, law enforcement, injury prevention, and emergency response on the reservation; professional drivers who know the roads particularly well; and residents. They have interviewed more than 120 key stakeholders and surveyed about 240 other people by tabling at 9 community events. Collectively, the study participants comprise a broad variety of viewpoints that has produced rich data about what local experts know about the sources of risk, how they manage those risks, and what they recommend to improve safety, Quick says. From these participants and from other tribal land locations and researchers, they are also gathering success stories about improving roadway safety.

Guillermo Narváez

**Preliminary findings indicate a heightened concern for pedestrian safety, since many reservation residents travel on foot.**


Guillermo Narváez

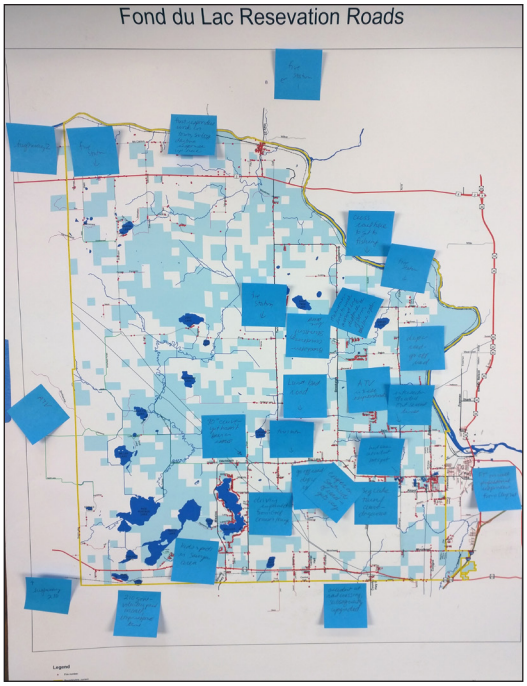
**Tribal government in Leech Lake, Minn., as well as in many of the other 566 recognized American Indian and Alaska Native tribes, are remaking and renaming their roads in manners that have greater meaning to them. This road sign is in Ojibwe, which translates to "wolf" in English.**

Preliminary findings suggest that tribal transportation safety problems may not be so different from rural safety problems, except for a much greater concern for pedestrian safety and the complexities of coordinating between the tribal governments and other jurisdictions.

Many reservation residents, by choice or necessity, travel on foot to get around in reservations, and several tribal governments are actively promoting walking, jogging, and biking for their recreational and health benefits. However, people feel unsafe because of narrow road shoulders, poor lighting, vegetation, or animals. In addition, there are many concerns that drivers who are not from the reservation do not expect or anticipate encountering so many pedestrians in some locations, as well as concerns about congestion and speeding during peak tourism periods.

Kade Ferris, Transportation Planner with the Red Lake Tribal Engineering Department, says that the researchers' work has allowed for "an unprecedented and useful integration of disparate types of data into a more comprehensive, robust picture, leading to the development of a comprehensive tribal transportation safety plan for the Red Lake Nation." Some of these data have helped identify pedestrian safety concerns along Minnesota Highway 1, the main east-west highway through the reservation, where people are moving back and forth among the residential areas, stores, and community facilities. According to Ferris, the data collected through this research collaboration helped the tribe to apply for and receive funding from the State of Minnesota to develop a new walking trail and street lighting to provide a safer walking environment for the reservation's residents. The researchers are also working with the Red Lake Band DOT to elaborate a protocol to analyze safe routes to school to support their request for improvement funds.

Tribal transportation leaders and others have not identified alcohol- or drug-impaired driving as a distinguishing, special feature of roadway safety in reservations Quick notes. "We hear very mixed statements about this. Some people indicate that impairment is not a particular concern. Others indicate that it is, but emphasize they do not see a difference between on- and off- reservation patterns."




Guillermo Narváez

**Notes taken from Fond du Lac members while talking about their experiences and impressions of the roads they drive in the reservation.**

The data indicate that collaboration among law enforcement agencies is key not just for patrolling and responding to incidents, but also for monitoring and prioritizing safety concerns. The team has heard many positive stories, but also that there are "some issues… around data quality, data sharing, and data interpretation to set priorities for safety resources," Quick says.

Quick and Narváez plan to complete their analysis of reservation safety data, expand into non-Minnesota sites, and build research and teaching capabilities about tribal governance at the Humphrey School.

**About This Project**

"Collaborating with American Indian Communities to Re-Interpret and Strategize About Transportation Safety Risks in Tribal Lands" is led by principal investigator Kathryn Quick and co-investigator Guillermo Narváez with the Humphrey School of Public Affairs at the University of Minnesota (UMN). More information can be found at www.roadwaysafety.umn.edu/research/search/projectdetail.html?id=2015031.

The Roadway Safety Institute is the Region 5 University Transportation Center focusing on user-centered transportation safety systems. The Institute is a consortium led by the UMN; other members are the University of Akron, the University of Illinois at Urbana-Champaign, Southern Illinois University Edwardsville, and Western Michigan University.

*This newsletter highlights some recent accomplishments and products from one University Transportation Center (UTC). The views presented are those of the authors and not necessarily the views of the Office of the Assistant Secretary for Research and Technology or the U.S. Department of Transportation.*

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