Combining Education with Enforcement to Reduce Motor Vehicle Injuries

“The number one cause of unintended deaths among Native Americans is motor vehicle crashes,” says TTAP safety expert Kelly Powell. “Making roads and vehicles safer can help, as can reinforcing EMS programs. But no matter how hard we work and how much money we spend, we are never going to reduce fatalities unless we change behavior.”

This is a point that Powell has made to hundreds of tribal members attending her TTAP Motor Vehicle Injury Prevention workshops over the past two years. She recommends that tribal transportation professionals see motor vehicle accidents as a disease that is preventable when people are motivated to take simple common-sense precautions. “An integrated program that combines education and enforcement – two of the “Es” of safety – can make a real difference,” Powell says.

An Indispensable Resource

As a starting point, Powell suggests tribes consult the Tribal Motor Vehicle Injury Prevention Best Practices Guide, which was released in 2016 by the U.S. Centers for Disease Control. The guide contains lessons learned and success stories from tribes who have implemented evidence-based strategies to reduce injuries from motor vehicle crashes. The goal is to highlight efforts that proved effective and highlight why those that didn’t fell short.

For instance, the Best Practices Guide includes a comprehensive list of interrelated measures that tribes can adopt to increase seat belt and child safety seat use as well as strategies to reduce driving under the influence. The recommendations in the seat belt section provide a flavor of the comprehensive approach found in this guide.

Strengthen existing tribal laws mandating seatbelt use. In the ideal law, seatbelt use would be subject to primary enforcement, which means that police can stop and ticket motorists for being unbelted, rather secondary enforcement, which allow police to ticket unbelted occupants only if they are stopped for another reason. It would require all passengers to be restrained regardless of where they are sitting.

Conduct high-visibility enforcement events in addition to normal enforcement programs. These can be conducted at any time, but they are particularly effective when organized in conjunction with high-profile tribal events, which might include everything from a powwow or fair to a basketball game or prom.

Develop a multi-part plan to increase awareness of the importance of buckling up. Develop public service ads featuring notable local figures as well as community members who were saved by wearing their belts. Publicize seatbelt enforcement events. Use paid media — such as billboards or ads in local newspapers — as well as social media to increase awareness of changes in seatbelt laws. Whatever path you choose, your message will be more effective if it includes tribal symbols and references tribal culture.

Create alternative seatbelt enforcement programs. Ideally, your goal is to encourage tribal members to wear seatbelts, not penalize them for not buckling up. Put in place a grace period after changes in seatbelt laws. After that, offer people who violate the law the option of attending a training session rather than pay a fine.

“It takes a coalition of concerned individuals to make a real difference,” Powell says. “One of the benefits of the Best Practices Guide is that it provides guidance on building effective coalitions.”
Making the Most of Your Road Maintenance Dollar

Featuring the Ramah Chapter of the Navajo Nation

Road maintenance is a never-ending challenge, but it is especially pressing in Indian Country, where road systems are sprawling, funds are scarce, and the backlog of deferred maintenance never seems to shrink. At the same time, maintaining tribal roads is expensive. In 2018, the Bureau of Indian Affairs and the Tribal Interior Budget Council Subcommittee on Road Maintenance published the results of a study of 142 tribes and BIA agencies with road maintenance programs. The annual cost of maintaining a paved road was $14,100, gravel roads $4,400, and earth roads $3,100.

Making Better Decisions about Allocations of Funds

For Mike Morgan, a TTAP asset and data management expert, the key to getting the most out of a tribe's transportation budget is an up-to-date road inventory and condition assessment. “With this information in hand, a tribe has the data it needs to make informed decisions about allocating its existing maintenance funding among its priority maintenance projects,” he says. At the same time, Morgan urges tribes to set aside money — perhaps more than they might think necessary — in a rainy-day fund. “Emergencies are the most common reason that tribes fall behind in both priority and periodic maintenance,” he says. “Rather than managing to a plan, you end up managing by crisis.”

Access Low-Cost Sources of Material and Equipment

For tribal transportation professionals like Shane Lewis, transportation director for the Ramah Chapter of the Navajo Nation, one answer to stretching a tribe’s transportation funding is finding low-cost supplies of materials and equipment. For instance, Lewis has secured excess milling from the New Mexico Department of Transportation, which he plans to apply to high-use earth roads on the reservation. “I intend to use the millings to make a school bus route passable in bad weather,” he says. “This will enable buses to pick up and drop off students closer to their homes.” The only cost for the milling, Lewis says, is the haulage.

Lewis has also qualified for the FHWA’s surplus and excess government property program, which enables him to obtain equipment from the U.S. Government Services Administration. “There is a fair market value program and a free program,” Lewis explains. “So far, we have secured a number of free GPS units — all we had to pay was postage — and bought a low-mileage crew-cab pickup for $12,000. The asking price was $16,000 but we were able to negotiate a better deal.” The FHWA recently posted a webinar explaining how tribes can take advantage of this program.

Explore Alternative Maintenance Methods

Another tip that Morgan offers is to maintain paved roads while their surface is structurally sound — and to employ low-cost techniques to ensure they stay that way. For instance, rather than using an asphalt overlay for surface cracking, he recommends applying a scrub seal followed by a fog seal. “You effectively end up with a new road that will last a long time at 25 percent of the cost of other methods,” he says.

For tribal transportation professionals, funding road maintenance is a never-ending exercise in ingenuity and perseverance. “Someone in my position is always looking for ways to supplement our maintenance budget,” Lewis says. “You really have to be on your toes.”
TTAP Safety Expert Ed Demming Brings Decades of Experience to Training

Throughout his career as a transportation engineer with the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA), Ed Demming never hesitated to adopt an unconventional approach if he thought it improved on accepted wisdom. This perspective distinguishes the safety training sessions he offers for TTAP.

For instance, Demming urges tribal transportation planners to resist the temptation to improve their roads a hotspot at a time. “Investing in low-cost countermeasures that can be applied system-wide ends up saving more lives than a series of high-profile projects.”

Taking an Open-Minded Approach

Part of Demming’s adventurous spirit may be due to his unusual background. Demming’s score on CDOT’s math aptitude test was so high that the agency offered him a job even though he was an English major in college. In fact, it would be almost a decade before he earned a second bachelor’s degree, this time in civil engineering.

Demming also entered the profession at an exciting time for transportation engineering in Colorado. CDOT had yet to complete Interstate 70 in the mountains west of Denver, and Demming tested materials and conducted construction surveys while the second bore of the Eisenhower tunnel was being completed.

Finding the Best Solution - and Sticking with It

Over the course of his career, Demming worked in nearly every segment of road transportation, bringing an unbiased perspective and an analytic habit of mind to each position. As an engineer in CDOT’s wetlands program, for instance, Demming reclaimed a marsh fouled by coke ash and overgrazing. His approach was so effective that a colony of beavers took up residence when the project was completed. Not surprisingly, the project also won a national award.

Demming created a safety program that included local agency involvement and cost sharing. He asked the area’s tribes and county governments to identify two problem intersections and developed high- and low-cost improvement strategies for each one. “This way, regardless of funding, we could always make a difference,” he says.

Demming draws on knowledge gained from taking courses over a 25-year period at the University of Colorado Denver, earning two master’s degrees in engineering.

His own experience as a lifelong student has made his transition to an educator an easy one. “I know how much I’ve been helped by the courses I’ve taken,” he says. “As a TTAP instructor, it’s my privilege to help others.”

TTAP’s Diann Wilson Followed Unusual Path to Planning and Procurement

Many tribal transportation professionals start their careers in other fields — and Diann Wilson, one of TTAP’s planning and procurement experts, is no exception. One of her first jobs was as a sheriff’s deputy in Seminole County, Oklahoma. Wilson enrolled in the basic course for new peace officers organized by Oklahoma’s Council on Law Enforcement Education and Training and spent three years on the force.

This experience underlined the importance of training. Over the past two years, Wilson has crisscrossed the US for TTAP, offering more than 40 training sessions reaching hundreds of tribal members.

“I’ve been humbled by the dedication and determination of the professionals I’ve met to gain knowledge that they can apply for their tribes,” she says. “It has made all the traveling I’ve done seem insignificant.

To illustrate her point, Wilson cites the tribal members who, lacking funding for a rental car, walked a mile each way through the snow to attend a session she gave in Bethel, Alaska, just 50 miles from the Bering Sea. When she learned about their predicament, she picked them up in the morning and dropped them off in the afternoon. When she mentioned to one of the participants how impressed she was by their determination, the woman simply replied they were there for the training and would do whatever it took to get it. “It humbled me so much to know that they would make that kind of effort to come to our classes.”

Making the Most of Each Opportunity

But Wilson, like other transportation professionals, has also learned by doing. While serving as a county deputy, she was asked to write a grant to fund school resource officers for the entire county. “At the time, there was no class on proposal writing I could have taken,” she says. It took Wilson nine months to put the grant together, including innumerable calls to experts around the country, but she ultimately secured a grant for $500,000. She ultimately turned to grant writing as a sideline she could always fall back on.

And she is very good at it: Wilson has secured more than $24.5 million in funding for rural communities in Oklahoma, Texas, and Tennessee.

Ultimately, her grant-writing led to TTAP. With grant funding, she served in a series of positions that immersed her in transportation, including with the Oklahoma Traffic Incident Management Program. “Oklahoma is the number three state in the United States for natural disasters. Our roads are always needing to be replaced or repaired.”

As a result, when the opportunity came up to join TTAP as a planning and procurement expert, she had the experience. “I always look forward to doing something new,” she says. “It was a great decision.”
Overview

The Federal Highway Administration (FHWA) Office of Innovative Program Delivery's Center for Local Aid Support launched the Tribal Technical Assistance Program (TTAP) Center 2-year pilot project in 2018 as a transportation resource for tribal communities across the country.

The TTAP Center provides comprehensive transportation training, both in the classroom and online, as well as technical assistance to tribal communities. These activities help to build skills and expertise to ensure the safety and performance of tribal roads and the continuous professional development of tribal transportation workforces.

Contact Us

**TTAP Center**

Beth O'Donnell, Director  
434-924-6362  
ttap@virginia.edu

Walt Catlett, Director of Education and Outreach  
501-804-6140  
walt.ttap@virginia.edu

Valerie Rudman, Logistics Coordinator  
434-924-2806  
logistics.ttap@virginia.edu

**FHWA Center for Local Aid Support**

Victoria Peters, Director  
720-963-3522  
victoria.peters@dot.gov

Andy Byra, Program Specialist  
720-963-3550  
andy.byra@dot.gov

Danielle Mathis-Lee, Program Specialist  
720-235-0528  
danielle.mathis-lee@dot.gov

**TTAP’s Subject Matter Experts**

**Asset and Data Management**

John Burton | 501-992-7545  
john.ttap@virginia.edu

Mike Morgan | 479-422-7687  
mike.ttap@virginia.edu

**Maintenance and Operations**

James Bailey | 817-487-0595  
james.ttap@virginia.edu

Scott Johnson | 903-574-8329  
scott.ttap@virginia.edu

**Planning and Procurement**

Barbara Richard | 501-350-4602  
barbara.ttap@virginia.edu

Diann Wilson | 405-380-3047  
diann.ttap@virginia.edu

**Project Delivery**

Kim Johnson | 972-632-7000  
kim.ttap@virginia.edu

Marc Shepherd | 409-656-0128  
marc.ttap@virginia.edu

**Safety**

Ed Demming | 970-249-8806  
ed.ttap@virginia.edu

Todd Morrison | 270-404-4870  
todd.ttap@virginia.edu

**Motor Vehicle Injury Prevention**

Kelly Powell | 561-312-3770  
kelly.ttap@virginia.edu

**Road Scholar Certification Program**

Tony DeCresie | 813-995-8872  
tony.ttap@virginia.edu