



U.S. Department  
of Transportation  
Federal Highway  
Administration

# SAFETY COMPASS

HIGHWAY SAFETY SOLUTIONS FOR SAVING LIVES

## A Message from FHWA Associate Administrator for Safety, Joe Toole



Recently I have been reading “New Year’s” clips from local papers across the nation with stories about States that had their lowest fatalities in decades, or ones that had the safest holiday season on record. Every indication is that, in the end, 2010 will be another record-breaking year. But as someone said to me, “It is not that this makes you want to celebrate. It’s just that it makes you feel like you are making a difference.” I sense the same kind of feeling throughout the safety community. It was a good year, we are making a difference, and we have to keep pushing.

During this past year we saw driving patterns continue to change, but we also saw our own industry changing. Things that we have been pushing for years are now taking hold, moving from being “innovations” to simply “state of the practice.” Part of the credit for this transformation needs to go to programs like “Every Day Counts” and “Highways for LIFE” that have given a big boost to the implementation of innovations such as safety edge and the use of Road Safety Audits. I also see part of this as a sign of the times.

States and local governments are looking even harder for cost-effective solutions that can make a real difference. And those kind of systematic investments are paying off.

What all this tells me is that we need to keep pushing to keep the innovation pipeline full. We can’t stop looking for technologies and practices that will make a difference, particularly those that provide low-cost solutions. These innovations may come from R&D, but they also can come from stealing shamelessly from each other, from other industries, and from other countries. And as we unearth them, we need to continue to find ways to accelerate their adoption and implementation. I think nothing is sadder than hearing about crashes we could have prevented had we implemented a proven life-saving technology. In this regard, every day does count.

So what does 2011 hold? In Washington, this is likely to be a challenging year for the Congress and the administration as they once again try set out a new direction for the future highway program. In these times, I think we are particularly fortunate to have such a strong and collaborative highway safety community that will continue to work towards zero deaths, awakening the nation to the fact that it “doesn’t have to be this way.” For most of us, this will also be a time to focus on implementing what we know works and building a foundation for our next challenges.

My personal wishes to each of you for a healthy, safe, and happy new year.

## United Nations Decade of Action for Road Safety Starts on May 11, 2011

The United Nations (UN) has unanimously proclaimed 2011-2020 as the Decade of Action for Road Safety, making road crashes an international priority on the scale of international health threats such as HIV/AIDS and malaria for the first time. It will be launched around the world on May 11, 2011. With this designation, traffic-related deaths and injuries can begin receiving the attention they deserve as major threats to our well-being – both at home and around the world.

Currently there are nearly 1.3 million deaths a year worldwide on the roads. In addition, there are 50+ million serious injuries. The World Health Organization (WHO) estimates that by 2030, traffic related injuries will be the 5th leading cause of death worldwide. More people will die on the roads than will die of HIV/AIDS! It is also estimated that we will lose 5 million more people and another 50 million will suffer debilitating injuries in the next decade.

But we can do something about this! The Safe Systems approach is the basis of the international UN Decade of Action Five Pillar Plan:

1. Building Management Capacity.
2. Encouraging Safer User Behavior.
3. Building Safer Roads.
4. Building Safer Vehicles.
5. Improving Post-Crash Care.

If we use the Safe Systems Approach and start implementing many known interventions involving the road, the vehicle, and the user – building safer cars and roads, passing good traffic safety laws, and promoting strong education and enforcement – we can create a safety culture and have a huge effect on future deaths.

The Decade of Action for Road Safety is our opportunity to make our communities safer wherever we live – and to help others around the world. Toward Zero Deaths efforts are gaining momentum across the United States and are a major U.S. contribution to the Decade of Action. To participate in the Decade of Action:

- Go to [www.decadeofaction.org](http://www.decadeofaction.org) for more information and downloadable materials.
- Plan safety activities on May 11, 2011, and commit to the Toward Zero Deaths initiative.
- Wear a Road Safety Tag and commit to incorporating road safety into all of your transportation activities. The Road Safety Tag is the official global symbol for the UN Decade of Action for Road Safety and represents our commitment to making our roads safe. It also will be a focal point of the Decade of Action launch. To obtain a tag go to <http://decadeofaction.sandbag.uk.com/Store/DII-46-8-road+safety+tag+badge.html>.



For more information, contact Bella Dinh-Zarr, PhD, MPH, FIA Foundation and MAKE ROADS SAFE Campaign for Global Road Safety, [b.dinhzarr@fiafoundation.org](mailto:b.dinhzarr@fiafoundation.org).

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### Rumble on the Reservation DVD Now Available

The Roadway Safety Foundation (RSF) recently released *Rumble on the Reservation*, an 11-minute DVD that introduces audiences to American Indian communities that have seen motor vehicle crashes, injuries, and fatalities plummet after incorporating rumble strips into roadway safety projects on tribal lands. Transportation planners and safety experts from various American Indian communities, as well as the Federal government, explain the versatility and cost-effectiveness of this safety device and provide real-world examples of where they have seen rumble strips successfully deployed.

Among the various reasons that American Indian communities stand to benefit so greatly from rumble strips is that many tribal lands are served primarily by two-lane rural roads, which are the type most severely plagued by high fatality rates and elevated risks of roadway departures. This is because rural highways are often narrow and have high speed limits, limited sight distances, frequent curves, and abundant trees or other roadside hazards. In other words, there's little room for error. In fact, 60 percent of fatal crashes are roadway departure crashes, with a roadway departure fatality crash occurring every 23 minutes.

*Rumble on the Reservation* was produced in conjunction with Michigan Technological University's Tribal Technical Assistance Program (TTAP), and was officially unveiled at an RSF display booth at the 13th Annual National Tribal Transportation Conference, November 15-18, 2010, in Albuquerque, NM. A corresponding brochure is being printed and will be available shortly. If you are interested in obtaining a copy of this valuable resource, please contact Cathy Gillen.

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## New Toolkit Available to Advance Road Safety Audits (RSA) on Tribal and Federal Lands

The Federal Highway Administration (FHWA) defines an RSA as a "formal safety performance evaluation of an existing or future road or intersection by an independent, multidisciplinary team." RSAs have proven to be a leading tool for improving safety on and along roadways. As such, the use of RSAs has grown

RSAs are a widely accepted tool for improving safety. They are:

- Accepted by the FHWA Resource Center as a Market Ready Technology.
- Included in Highways for Life as a Vanguard Technology.
- Selected by the American Association of State and Highway Transportation Officials (AASHTO) Technology Implementation Group as a "technology" to promote to member States.
- Identified as one of nine safety "Proven Countermeasures" by the FHWA Office of Safety.

tremendously throughout the United States. A decade ago, few States had experience conducting RSAs; now each State has had some experience with the RSA process. To promote the use of RSAs by tribal governments and Federal Land Management Agencies (FLMAs), FHWA has provided training and technical assistance and has led RSAs for tribal governments and FLMAs, including the U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, and Bureau of Land Management.

The implementation of RSAs for tribal governments and FLMAs showed that these partners often face unique conditions, staffing, and funding constraints that do not allow needed resources to be devoted to improving roadway safety. In order to advance implementation of RSAs on tribal and Federal lands, the FHWA Office of Federal Lands and FHWA Office of Safety partnered to develop the *RSA Toolkit for Tribal Governments and FLMAs*.

The toolkit is intended to assist tribal governments and FLMAs to use RSAs to address their safety issues. It provides information about identifying an RSA champion, building supportive partnerships, identifying available funding sources for an RSA program and improvements, outlining tools to conduct RSAs, and identifying resources to examine safety issues and select countermeasures.



The toolkit provides worksheets and other sample materials to facilitate parts of the RSA process – requesting assistance, scheduling an RSA, analyzing safety data, conducting field reviews, and documenting issues and suggestions. The toolkit also includes examples of programs and of similar agencies' experiences to highlight successes and struggles in implementing RSAs and improving safety for all road users. According to John Baxter, Associate Administrator for the FHWA Office of Federal Lands Highway, "Our case studies have shown that RSAs are an effective tool for improving safety on our Federal and tribal lands. The RSA toolkit will help Federal agencies and tribes institutionalize their use. We are looking forward to hearing some of the success stories that are likely to come out of this effort."

The new toolkit will be available in February 2011 and can be downloaded from the Office of Safety website: <http://safety.fhwa.dot.gov/>.

## Planes, Seaplanes, and Automobiles: A Journey to Provide Road Safety Audit (RSA) Peer Assistance in Alaska

In October, the RSA Peer-to-Peer (P2P) Program assisted the Organized Village of Kasaan, located on the Prince of Wales Island in Alaska. Often when a State, local, or tribal road owner considers an RSA, technical or procedural questions arise. FHWA's Office of Safety established a P2P program where RSA experts volunteer their time to provide guidance to agencies requesting assistance.

Prince of Wales Island, Alaska is the fourth-largest island in the United States and is almost entirely made up of Federal National Forest land. Much of the road system originally was created by the logging industry. While an increasing number of roads are being paved, there are several highways that remain gravel. Staff from the Village were preparing to conduct RSAs on some of the island's rural roads and contacted FHWA for RSA peer assistance.

After assessing the purpose for the RSAs and types of roadways to be reviewed, the P2P Coordinator recommended Tom McDonald from the Iowa Local Technical Assistance Program due to his experience with rural roads. Tom has been serving as an RSA Peer since 2005.

Sam Thomas of the Village and Tom McDonald coordinated through a teleconference and e-mails to schedule the RSAs. Getting to Prince of Wales Island was no easy task, but Tom was up to the challenge. After a three-leg commercial flight and a transfer to a seaplane, Tom finally arrived on the island and the RSA team got to work. The RSA team included Byron Bluehorse, Alaska Tribal Technical Assistance Program (University Alaska Fairbanks); Thomas Llanos, Alaska Region Bureau of Indian Affairs (BIA) Branch of Transportation; and Dennis Nickerson, Klawock Cooperative Association. Sergeant John Brown, Alaska State Troopers assisted this effort by discussing safety deficiencies within each of the corridors.

Since specific and current crash data was not available for the roadways under review, the RSA team relied on general crash data from the Alaska Department of Transportation and used their experience in identifying common crash causal factors for lower volume rural roads.

One RSA was conducted on Kasaan Road – an unpaved, narrow, curvilinear roadway approximately 17 miles long with a traffic volume of approximately 350 vehicles per day. Suggestions for low-cost safety improvements included updated signing, improved guardrails, removal or shielding of more hazardous roadside obstacles, and enhanced delineation along shorter radius horizontal curves and narrow structures.

Another RSA was conducted on Hydaburg Highway from the community of Hydaburg to Kalwock/Hollis Highway. Suggestions for low-cost safety improvements included upgrading all signing to 2009 MUTCD guidance (specifically horizontal alignment signs), additional shielding of roadside hazards, enhanced delineation at bridges, and a more uniform treatment of delineation for horizontal curves.

By assisting the Organized Village of Kasaan, we can boast that the RSA P2P Program has used planes, trains, automobiles, and boats to deliver on-site assistance! If your agency is considering RSAs and you would like assistance from an expert peer, please contact us by phone (866-P2P-FHWA, 866-727-3492), e-mail ([safetyp2p@dot.gov](mailto:safetyp2p@dot.gov)), or online (<http://safety.fhwa.dot.gov/rsa/resources/p2p/>). If you have experience with RSAs and you are interested in serving as a peer, please send an e-mail with your interest to Heather Rigdon ([heather.rigdon.ctr@dot.gov](mailto:heather.rigdon.ctr@dot.gov)).

### Applications Sought for 2011 National Roadway Safety Awards

RSF and FHWA are currently accepting applications for the 2011 National Roadway Safety Awards. RSF and FHWA recognize best practices in roadway safety improvements and publish the practices to help solve recurring roadway safety issues throughout the Nation.

The competition includes three award categories: Infrastructure Improvements, Operational Improvements and Program Planning, and Development and Evaluation.

The submission deadline is May 1, 2011. To learn more or download an application, visit <http://safety.fhwa.dot.gov/fhwasa1101/> or [www.roadwaysafety.org](http://www.roadwaysafety.org).

### 2011 Lifesavers Conference

Lifesavers will hold its annual conference on March 27-29, 2011, in Phoenix, AZ. The Lifesavers conference is dedicated to reducing the tragic toll of deaths and injuries on our Nation's roadways. It addresses a wide range of safety topics, from child passenger safety and occupant protection to roadway and vehicle safety and technology. The conference also offers the latest information on advances in highway safety, highlights successful programs, and draws attention to emerging safety issues. For registration and more information, visit <http://lifesaversconference.org/>.

### Caroline Trueman Recognized for Safety Efforts

Caroline Trueman, a Safety Engineer in the FHWA New Jersey Division Office, recently was honored by the South Jersey Traffic Safety Alliance (SJTSA) at its biennial awards luncheon. Caroline was commended for:

- Leading investigations to better use Highway Safety Improvement Program and High Risk Rural Road Program Funding for safety improvements on local highways.
- Assisting local agencies in Road Safety Audits and project implementation.
- Being a strong advocate for planning and concept development for local highway safety improvements and a valuable resource for local safety planners and engineers.

Congratulations, Caroline!

## Federal Highway Administration Staff Leads the Way on Walk to School Day



Staff from across FHWA got out of their offices and on to their feet to celebrate Walk to School Day 2010. On October 6 many personnel from the U.S. Department of Transportation (USDOT) and FHWA led by example and encouraged an active trip to school – from USDOT Secretary Ray LaHood and FHWA Administrator Victor Mendez to FHWA Division Representatives across the country – by joining International Walk to School Day celebrations in their own communities.

Linda Guin, Safety Engineer in the Alabama Division, participated in a morning Walk to School Day event with a local elementary school. The group included students and parents from the elementary school, local college students who are majoring in health-related studies, Alabama Department of Transportation employees, and Alabama Department of Public Health employees. The event was covered by local broadcast and print news media.

In Florida, Safety Engineer Hussein Sharifpour took part in a great Sunshine State event saying, “I enjoyed helping out at one of our schools in Tallahassee, which had about 150 students walking along with their parents.”

Greg Morris, Safety Engineer in the Georgia Division, along with staff from the Georgia Department of Transportation (GDOT), attended a local elementary school’s event, which was dubbed “a great success.” GDOT Commissioner Vance Smith spoke to several hundred excited students who participated in the celebration.

In Madison, Mississippi, Safety Engineer Teresa Bridges participated in Walk to School Day with representatives from the Mississippi Department of Transportation and other state and local agencies who walked to Madison Avenue Upper and Lower Schools.

Oklahoma’s Safe Routes to School Director, Ernestine Mbroh, and the FHWA Oklahoma Division’s Safety Engineer, Huy Nguyen, were among the 50,000 Oklahoma students from over 80 elementary and middle schools who participated in the annual walking and bicycling to school event. This year marked the fourth in which Oklahoma participated in the International Walk to School event statewide. Ms. Mbroh summed up Oklahoma’s celebrations stating, “The annual event was a great way to celebrate Oklahoma’s most valuable resource – our children – and to build public awareness and understanding of the benefits of making walking and biking to school safer.”

The Virginia Division also joined the international celebration and participated in two Walk to School events hosted by two different elementary schools. Josue Yambo, Highway Safety Engineer, reported that over half the Division participated in the schools’ events, including the Division Administrator Irene Rico and Assistant Division Administrator Wayne Fedora. Mr. Yambo described the celebration at one school, saying, “Eighty percent of the students either walked or biked! Lots of the teachers and staff walked too. Two buses were completely empty and several had only a few students aboard. What a success!”

### Did You Know?

International Walk to School Day began as National Walk our Children to School Day in 1997, as part of a project jointly funded by FHWA and the National Highway Traffic Safety Administration (NHTSA). It became an international effort in 2000, when Canada and the U.K. joined the cause with the United States.

Each of these examples is an illustration of how children and families in more than 3,500 communities across the U.S. celebrated International Walk to School Day 2010, joining the efforts of individuals in over 40 countries across the globe. International Walk to School Day is supported by the FHWA Safe Routes to School (SRTS) program and FHWA staff from across the country led the way on this year’s one-day celebration of walking and bicycling to school.

## Youth Pledge to End Distracted Driving

The National Organizations for Youth Safety (NOYS) convened a team of youth leaders from across the United States to form the first National Teen Distracted Driving Prevention Leadership Team. The team of youth leaders attended the second National Distracted Driving Summit hosted by USDOT under the leadership of the Secretary of Transportation, Ray LaHood. At the summit the youths pledged a year of action to help reduce distracted driving.

The summit's morning session included a welcome by the Secretary, remarks from David Strickland, Administrator of the National Highway Traffic Safety Administration, and a panel discussion on the steps taken in the past year in legislation, regulation, technology, and research to curb distracted driving. Youth attendee Javier Torres, from the Universidad Metropolitana in San Juan, Puerto Rico, found this session to be informative and helpful in establishing his project plan to reduce distracted driving in his community. "I got to hear about what the Department of Transportation has done over the past year to work towards reducing distracted driving, but it also gave me ideas as to what more can be and should be done in our efforts to stop distracted driving," Torres said.

During lunch, the team of youth leaders screened public service ads targeted towards teens to stop cell phone use while driving. Youth participant Justin Levy, from Marjory Stoneman Douglas High School in Parkland, Florida, presented his award winning public service announcement. The ad gave him the chance to tell teens about the dangers of distracted driving. "I felt that everyone was interested in the message that I, as a teen, wanted to send to other teens," Levy said. "I got to give feedback as to what would work and would not work for my age group and be effective in our mission."

The afternoon session centered around a panel discussion on policy, technology, legislation, regulation, and research steps that should be taken to prevent distracted driving. With the knowledge gained from the summit, the team developed five youth-led projects to take back to their individual communities to reduce distracted driving. Each team member will be responsible for initiating three out of the five projects created by the team in his or her community over the next year. These projects include local distracted driving summits and strategic public service announcements. "I was a little worried at first about implementing a project in my community by myself, but now I realize that there are so many people out there who are willing to help in our goal," said youth participant J Mintzmyer, from the United States Air Force Academy in Colorado Springs, Colorado.

The National Teen Distracted Driving Prevention Leadership Team will have a lot to accomplish over the next year, but Secretary LaHood is confident in the efforts of the youth leaders. "With these young advocates' help and leadership, we hope young people will get the message about how dangerous it is to text or talk on the phone while driving," said Secretary LaHood. "We hope they will be persuaded to take personal responsibility for the vehicles they're operating."



The youths are working to implement their projects and develop a guide for communities on empowering youth to lead the efforts to combat teen distracted driving. Their projects will culminate in May 2011 during National Youth Traffic Safety Month, and NOYS will release the community guide in the Fall of 2011. The youth team would like to thank The Allstate Foundation, AT&T, Ford Driving Skills for Life, and the National Road Safety Foundation for their financial support. Many of the youth leaders will be traveling back to Washington, DC to attend the Transportation Research Board (TRB) annual meeting, spend one day with a traffic safety mentor, and one day visiting with their legislative representatives.

## Road Safety 365: A Workshop for Local Governments

The FHWA Office of Safety, in cooperation with Federal, State, and local stakeholders, has developed a one-day workshop for improving the physical factors of local and rural roadways that may contribute to crashes. *Road Safety 365: A Workshop for Local Governments* was developed incorporating notable adult learning approaches for conveying information and conducting exercises. It is designed to provide local and rural agencies with practical and effective ways to incorporate safety solutions into daily activities and the project development process.

Rural roads account for approximately 40 percent of the vehicle miles traveled in the Nation, but account for about 55 percent of fatalities. The fatality rate for rural crashes is more than twice the rate for urban crashes. Rural area crashes and their consequences differ from urban ones in several ways:

- Rural crashes are more likely to occur at higher speeds.
- Crash victims are more likely to be unbelted than their urban counterparts.
- Crashes are more likely to produce fatalities due to longer response times.

To help reduce the number and severity of crashes on local and rural roadways, the FHWA Office of Safety has developed the Road Safety 365 workshop as part of a package of focused products for local and rural governments.

Using examples, case studies, and hands-on activities, the course demonstrates how to integrate safety solutions into rural and local transportation projects at all stages of the project development process – planning, design, construction, implementation, operations, and maintenance. The course provides practical guidance in identifying road safety issues and implementing low-cost countermeasures. It also presents the benefits and potential cost savings of integrating safety improvements into daily operations and maintenance activities – not just on an occasional basis, but 365 days a year.



The Road Safety 365 workshop audience ranges from decision-makers to road crews. It is aimed primarily at local and rural road and public works supervisors. Others who would benefit from this training include: elected officials, public safety advocates, State Department of Transportation personnel, law enforcement, consultants, regional and rural development organizations, municipal associations, town safety committees, local planning commissions, metropolitan/rural planning organizations, university extension offices, and Local Technical Assistance Program (LTAP) and Tribal Technical Assistance Program (TTAP) personnel. After completing the workshop, participants should be able to identify safety issues on their road network and the countermeasures and available resources to address them.

This one-day workshop was developed for LTAP and TTAP Center delivery to local practitioners. Demonstrating how personnel who adopt a safety attitude/culture in performing their duties can have a significant impact on making their roadways safer, the workshop is divided into nine modules that cover all aspects of improving safety on rural roadways.

For additional information about this workshop, please contact Rosemarie Anderson at [rosemarie.anderson@dot.gov](mailto:rosemarie.anderson@dot.gov). Contact your local LTAP or TTAP for a schedule of workshops.

**Spotlight on Task Force 13**

Task Force 13 (TF13) is a Joint Cooperative Committee of AASHTO, ARTBA (American Road & Transportation Builders Association), and AGC (The Associated General Contractors of America). Its members come from industry, the research community, academia, States, and FHWA.

TF13's objective is to develop, recommend, and promote standards for bridge and road hardware to ensure optimum function, aesthetics, and economy. It has several subcommittees:

- #1 Publication Maintenance
- #2 Barrier Hardware
- #3 Bridge Railing & Transition Hardware
- #4 Drainage Hardware
- #5 Sign, Luminaire & Traffic Signal Support Hardware
- #6 Work Zone Hardware
- #7 Certification of Test Facilities
- #8 Rail Highway Crossing Hardware
- Special Subcommittee – Marketing
- Special Subcommittee – New Standardization Areas

TF13 meets twice a year. The Spring meeting is conducted in conjunction with TRB Committee AFB20, the Committee on Roadside Safety Design. The Fall meeting is held in conjunction with the AASHTO Technical Committee on Roadside Safety.

TF13 has been responsible for the development of numerous standardized guides covering roadside barrier and bridge rail hardware, highway light pole hardware, small sign support hardware, and highway drainage products. The most widely used is *A Guide to Standardized Highway Barrier Hardware*, which was first published in 1971. It was revised/reissued in 1973, 1979, and 1995. Now all of our guides are on-line at [www.aashtotf13.org](http://www.aashtotf13.org). In 2011 the AASHTO Roadside Design Guide will be updated and will reference TF13 on-line guides as the source for current information on highway hardware.

Please visit our web site at <http://www.aashtotf13.org> and we hope to see you at our 2011 meetings.

**A Guide to Developing Quality Crash Modification Factors**

Crash Modification Factors (CMF) are a valuable resource to the transportation community. CMFs are used to support the transportation decision-making process, providing transportation professionals the ability to quantify the safety benefits of a particular countermeasure. CMFs can be used to:

- Evaluate alternative road safety treatments.
- Select those countermeasures best suited to correct specific problems.
- Promote benefits of improvements to management and the public.

The CMF knowledge base is continuously expanding as agencies implement countermeasures and evaluate their effectiveness. The CMF Clearinghouse contains more than 2,500 CMFs; however, only 232 of those CMFs are of high enough quality to meet the Highway Safety Manual inclusion criteria.<sup>1</sup> While many CMFs are available today, there are still countermeasures for which no accompanying quality CMF exists. Many agencies are implementing safety countermeasures and many are even conducting research studies to determine the effectiveness of these countermeasures. However these studies often stop short of developing CMFs. It is imperative that agencies continue to develop CMFs, particularly for new and innovative treatments, and also for those countermeasures for which a quality CMF does not exist.

The CMF Clearinghouse has recently added a [CMF "Most Wanted" List](#) to the Clearinghouse website. The CMF Most Wanted List contains areas or specific countermeasures for which quality CMFs do not exist in the Clearinghouse. The intent of the CMF Most Wanted List is that it will drive future research efforts and encourage practitioners to submit locally developed CMFs to the Clearinghouse.

The FHWA Office of Safety recently published *A Guide to Developing Quality Crash Modification Factors*. The purpose of this guide is to provide direction to agencies interested in developing CMFs. Specifically, this guide discusses the process for selecting an appropriate evaluation methodology and the many issues and data considerations related to various methodologies.

The guide opens with a background of CMFs, including the definition of CMFs and related terms, purpose and application, and general issues related to CMFs (i.e. applying multiple CMFs, CMFs derived from high crash locations). The guide then introduces various methods for developing CMFs. Discussion of these methods is not intended to provide step-by-step instruction for application. Rather, this guide discusses study designs and methods for developing CMFs, including an overview of each method, sample size considerations, and strengths and weaknesses. A resources section is provided to help users identify an appropriate method for developing CMFs based on the available data and characteristics of the treatment in question. For example, a full Bayesian study may be appropriate if an agency wishes to include prior CMF estimates in the analysis. The resources section also includes a discussion of considerations for improving the completeness and consistency in CMF reporting. Complete and consistent CMF reporting will provide users the necessary information to determine the applicability of a CMF to their particular situation.

For more information about CMFs, visit the CMF Clearinghouse at [www.cmfclearinghouse.org](http://www.cmfclearinghouse.org) or contact Karen Yunk in the FHWA Office of Safety at [karen.yunk@dot.gov](mailto:karen.yunk@dot.gov) or 609-637-4207.

<sup>1</sup> Transportation Research Board, "Methodology for the Development and Inclusion of Crash Modification Factors in the First Edition of the Highway Safety Manual," *Transportation Research Circular E-C142*, April 2010, <http://144.171.11.107/Publications/Blurbs/163444.aspx>

## Occupant Protection and Underage Alcohol Prevention Available from the Kansas Traffic Safety Resource Center

Car crashes are the number one cause of death for youth, and many of these deaths and injuries can be prevented through education. Because of this, the Kansas Traffic Safety Resource Office is providing three youth programs that will be available for the 2010-2011 school year: Booster to Belts; SafetyBreaks!; and Ride Like a Friend, Drive Like You Care. These programs provide potentially life-saving messages regarding road safety for children in grades K-12.

- Booster to Belts (K-3) is an interactive program that focuses on the importance of continued booster seat usage and promotes wearing seatbelts as a life-long habit.
- SafetyBreaks! (4-8) is five days worth of in-class lessons that last 15 minutes each and are taught in the form of a game, covering areas of safety and around cars; occupant protection; aggressive, distracted, and drowsy driving; road rules; and alcohol prevention. SafetyBreaks! was a finalist for the 2009 Safe Streets Alliance Innovative Initiative Award.
- Ride Like a Friend, Drive Like You Care (high school) is a three-part presentation best performed in an all-school assembly format. Students hear information from medical professionals about the health consequences of underage alcohol consumption. Next they receive information from law enforcement as to what Kansas law dictates regarding underage drinking. Finally students get an in-depth look at behaviors occurring in vehicles that are causing teens to crash.

All three programs are available at no cost through the Kansas Traffic Safety Resource Office. For detailed information about these programs please visit [www.ktsro.org](http://www.ktsro.org) or email Kat Woolbright at [kwoolbright@dcca.org](mailto:kwoolbright@dcca.org).

## Rumble Strips and Bicyclist Safety

On March 11, 2010, Secretary LaHood signed the USDOT Policy Statement on Bicycle and Pedestrian Accommodation (<http://www.dot.gov/affairs/2010/bicycle-ped.html>), encouraging States, local agencies, and others to provide safe and accessible facilities for walking and bicycling. Unfortunately, we continue to hear concerns from the bicycle community regarding the placement and location of rumble strips. The FHWA Office of Safety's Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures (<http://safety.fhwa.dot.gov/policy/memo071008/>) recommends that when shoulder rumble strips are placed on rural two-lane highways, the remaining shoulder width beyond the rumble strip should be four feet or greater, and that this area be paved. This accommodates bicycle traffic. The FHWA Office of Safety website [http://safety.fhwa.dot.gov/roadway\\_dept/pavement/rumble\\_strips/concerns\\_bike.cfm](http://safety.fhwa.dot.gov/roadway_dept/pavement/rumble_strips/concerns_bike.cfm) contains additional information on accommodating bicyclists' concerns with rumble strips. While Technical Advisory (TA) T5040.35, Roadway Shoulder Rumble Strips, contains advice on accommodating bicyclists, this 2001 TA is being updated to reflect current proven practices. The new TA will be released in 2011. Steps that can be taken now to address bicyclists' concerns include the use of narrower rumble strips or rumble stripes where shoulders are narrow, the provision of longitudinal gaps to allow bicyclists to safely traverse the rumble strips, and the use of lower profile rumble strips. Perhaps more important, when rumble strips are being considered on roadways that have frequent bicycle use, the early involvement of the State's bicycle coordinator can help assure that safety solutions are designed and implemented in ways that are compatible with the needs of that user group.

For more information about bicyclist concerns, contact Dick Schaffer in the FHWA Office of Safety at [dick.schaffer@dot.gov](mailto:dick.schaffer@dot.gov) or 202-366-2176.

### Safety Compass Newsletter

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Your comments and highway safety-related articles are welcomed. This newsletter is intended to increase highway safety awareness and information and to provide resources to help save lives.

You are encouraged to submit highway safety articles that might be of value to the highway safety community. Send your comments, questions and articles for review electronically to Karen Timpone, [karen.timpone@dot.gov](mailto:karen.timpone@dot.gov).