

SAFETY COMPASS

NEWSLETTER



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A Message from FHWA Associate Administrator for Safety Beth Alicandri



Improving Safety on the Roads Less Traveled

Many people think that America’s bustling interstate freeways, with their large volumes and high speeds, are more dangerous than smaller, local roads. However, the truth is that local roads have a fatality rate nearly THREE TIMES that of the interstate highway system.

Local roads have unique safety challenges. They can have narrower lanes and can lack safety features such as shoulders and adequate lighting. They also serve a variety of different users—cars and freight trucks, farm vehicles, buggies, transit vehicles, motorcyclists, bicycles, and pedestrians—often on the same traveled way.

FHWA offers unique and focused assistance to make local roads safer, and we frequently partner with other organizations that focus on local road safety, such as the National Local Technical Assistance Program Association (NLTAPA), the American Public Works Association (APWA), the National Association of County Engineers (NACE), and the National Association of Counties (NACo). One key strategy is the development of [Local Road Safety Plans](#) (LRSPs), which provide a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads.

FHWA offers a wealth of resources on LRSPs. We’ve developed a [concise briefing sheet](#) and a [comprehensive manual](#), and we will be releasing a video later this spring. Our Data Driven Safety Analysis team has partnered with NACE on a pilot project to help 25 Counties develop LRSPs (see related story on page 3). In addition, based on a USDOT [Resolution to Improve Safety on County Roads](#), the FHWA Office of Safety is collaborating with NACo to develop LRSPs in seven counties.

Other FHWA resources for improving safety on local roads include the Roadway Safety Data Program’s [State and Local Data Integration Project](#) which offers technical assistance to help State, Tribal, and local agencies identify cost-effective ways to develop safety data systems that integrate safety data on all public roads, and our recently-released series of videos and [brochures](#) on how to effectively communicate with local elected officials about local road safety.

Please visit our [Training, Tools, Guidance and Countermeasures for Local Practitioners](#) web page to access our many resources to help save lives on local roads.

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SUPPORTING THE STATES AND TRIBES: FEDERAL AID PROGRAMS

EVALUATION OF A STRATEGIC HIGHWAY SAFETY PLAN – WHY IS IT IMPORTANT?

By: Danielle Betkey, FHWA Office of Safety

Why is evaluating a State Strategic Highway Safety Plan (SHSP) so important? Besides the fact that States are required to regularly evaluate and update their SHSP, evaluation is a critical component to any safety planning process, and the SHSP is no exception. Realizing safety improvements through an SHSP depends on the use of data-driven priorities and proven effective strategies. Evaluation helps achieve this goal, because analyzing the SHSP process makes it possible for States to determine the progress and impact of their SHSP, which in turn enables them to recognize their successes, uncover challenges in implementing strategies or meeting goals and targets, and identify opportunities for improvement.

The SHSP process is ongoing and cyclical, which is why it is important to regularly assess how the SHSP is managed, developed and implemented. It is also necessary to examine the SHSP's performance and determine whether goals and objectives are being met. The results can help strengthen the SHSP process and performance and, in doing so, improve the safety of the State's transportation system.

To help States meet their SHSP evaluation needs, the FHWA has a great resource to help – [The SHSP Evaluation Process Model \(EPM\)](#). The EPM helps States answer basic questions of evaluation, such as: What are we trying to do? How well are we doing it? How can we improve?

Evaluation is an ongoing process, but the EPM is intended to capture how well the SHSP is performing at a point in time. Evaluation is most beneficial before a major SHSP revision or update or after a period of active SHSP implementation.

The EPM provides States with a ready-made tool to help them:

- **Assess their SHSP management process:** Is the SHSP managed in such a way to support effective development, implementation and evaluation? For example, what is the organizational structure that supports the SHSP? How is coordination achieved? How is data used

to identify needs and strategies? How are other agency plans and priorities aligned with the SHSP?

- **Determine progress in meeting their SHSP performance measures:** To what extent have strategies and actions been implemented (outputs), and to what degree are goals and objectives being met (outcomes)?
- **Focus on results:** How will results be interpreted and used to improve the SHSP process and performance?

Before a State can even begin the evaluation, it needs to establish evaluation objectives (i.e., what SHSP issues or questions need to be addressed), identify what data is needed to address the objectives, and determine who will be responsible for the evaluation effort and how the results will be used.

The EPM helps guides

States through these steps.

In each chapter, the EPM provides recommended actions and checklists or self-assessment questions that will help States apply the EPM. Chapter-specific worksheets in the appendix are intended to encourage a deeper review of the self-assessment questions. Equipped with this information, SHSP managers can more effectively administer their SHSP process, determine their State's roadway safety needs, and chart the course ahead.

The primary audience for the EPM is the State DOT or lead agency responsible for the SHSP. SHSP leaders, program managers, transportation safety planners, and other traffic safety professionals will all benefit from the information in the EPM.

For More Information

The FHWA Office of Safety is available to provide workshop or conference presentations, webinars, and technical assistance to support a State's SHSP evaluation efforts or use of the EPM. For more information, please contact Danielle Betkey at danielle.betkey@dot.gov.



Source: FHWA

BY THE NUMBERS: SAFETY DATA AND ANALYSIS

FHWA AND NACE PARTNER TO PROMOTE LOCAL ROAD SAFETY PLANS

By: Jerry Roche, FHWA Office of Safety

Local entities own about 75 percent of the road miles in the United States.¹ At the same time, local agencies tend to have the most limited resources to analyze and address safety risks.

To help local agencies, the Every Day Counts (EDC) data-driven safety analysis (DDSA) team added a local focus to its efforts for EDC-4.

A primary goal is to increase the number of local agencies that have a [local road safety plan](#) (LRSP). LRSPs are a [proven safety countermeasure](#) that provide a framework for local practitioners to identify the specific conditions that contribute to severe crashes on their roadways. Agencies can then analyze local data to establish emphasis areas, determine risk factors, identify countermeasures, and prioritize safety improvements and strategies.

As part of this campaign, the DDSA team has partnered with the National Association of County

Engineers (NACE) on a pilot project to help 25 Counties in California, Colorado, Florida, Nevada, Ohio, and Wisconsin develop LRSPs.

The pilot provides agencies with a blended learning experience that includes technical assistance, a series of webinars, and, most recently, a hands-on workshop at the NACE Annual Meeting in Wisconsin that helped participants develop their

“It has been amazing,” said Teresa Guagliardo, Traffic Engineering Specialist for Pueblo County, Colorado. “Now I have more knowledge about how to address the stakeholders and how to address the issues that we have so we can solve them. It’s been phenomenal.”

draft LRSPs. During a follow-up webinar in May, counties will share their final plans and discuss next steps in implementation as well as lessons learned from the pilot.

“Our goal is to get several counties within each State to develop plans through the pilot,” said Brian Keierleber, Executive Director of NACE. “Those agencies can then be spokespersons to influence their peers that there is value in investing time in a plan. If we can demonstrate success stories using a simple approach, people will be more comfortable starting their own.”

Many pilot participants are already seeing the value of developing a plan and are eager to implement theirs.

The pilot was based on a streamlined approach to developing LRSPs first demonstrated by Washington State and also successfully implemented by several Tribal agencies.

In Washington State, where 33 of 39 counties have an LRSP, Thurston County saw a 35 percent reduction in severe horizontal curve crashes after plan implementation.

“Horizontal curve crashes represented 45 percent of our fatal and serious injury crashes from



Local Road Safety Plan [infographic](#). Source: FHWA

2006 to 2010,” said Thurston County Traffic Engineer Scott Davis. “Developing our LRSP helped us identify that as a high-priority crash type and also define the highest-risk areas so we could treat them.”

Hillary Isebrands, Roadway Safety Engineer for the FHWA Resource Center’s Safety and Design Technical Service Team, said that one misconception is that counties must have an engineer or data analyst on staff to develop an LRSP.

“One of the great benefits of LRSPs is that they are scalable, so you can start small with the data you have on hand and don’t need to be a specialist,” she said. “Many effective plans are only a few pages.”

In a survey of county officials in Washington State, most participants reported spending an average of 80 hours to prepare their LRSPs. More notably, all participants said the development of LRSPs was worth the effort.

“Given the benefits and results, there is no reason not to,” Davis said.

View the [DDSA webinar](#) for local roads for more information, or to find out more about how to develop an LRSP for your community, contact Jerry Roche at jerry.roche@dot.gov.

¹ Bureau of Transportation Statistics – 2016.

DDSA TEAM CONTINUES TO SPREAD GOOD DATA PRACTICES THROUGH EDC4

By: Jerry Roche, FHWA Office of Safety

The Data-Driven Safety Analysis (DDSA) Team has been hard at work this spring continuing to promote the Every Day Counts 4 DDSA innovation to States that haven’t yet applied it. Efforts have included assisting State DOTs with some limited experience in more broadly integrating DDSA into their project development processes and procedures, and adding products and services to foster increased implementation of DDSA at the local level. As you might expect, the team’s success is measured in numbers, and the number of States at the demonstration level or above for DDSA rose from 37 in December of 2016 to 43 by the end of 2017.

Further, since 2016, six States have advanced along the implementation spectrum, going from the Development level to the Demonstration level, and one State has progressed from the Assessment to the Institutionalized level.

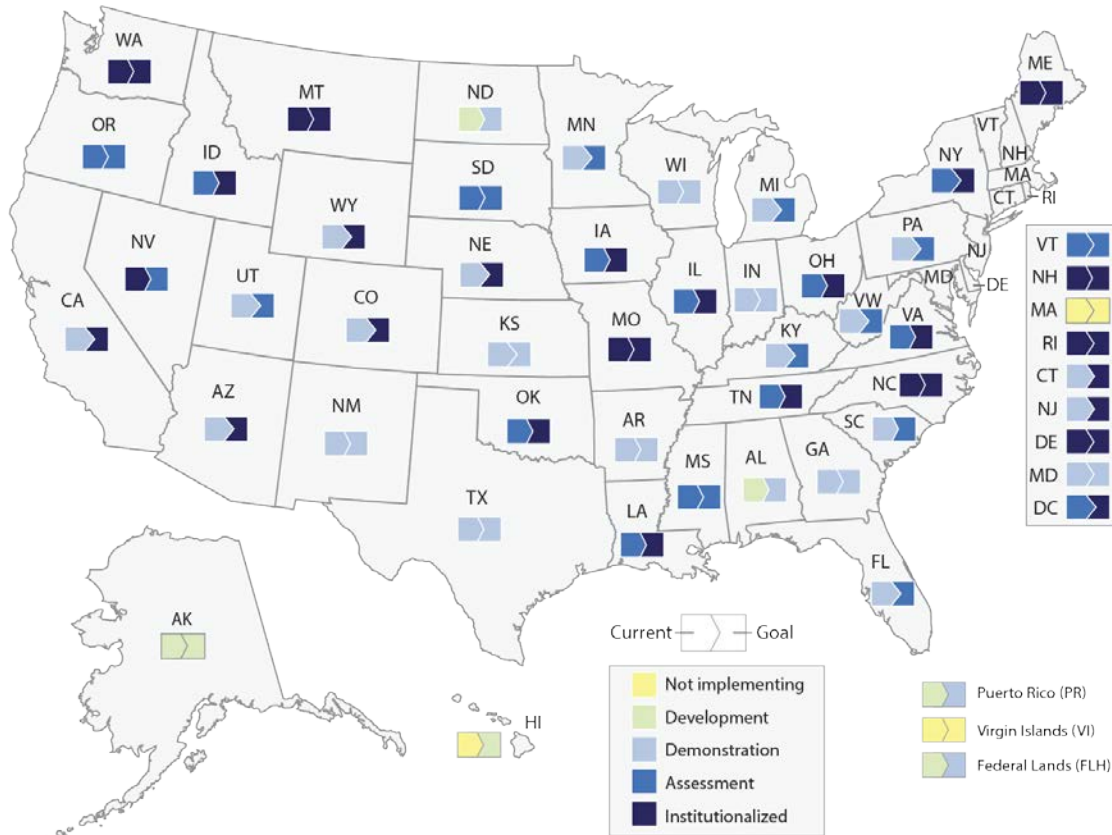
To date, 44 States have requested technical assistance in DDSA through EDC4, and in 2017 alone, the team participated in nearly 40 presentations, workshops, and exhibits, from local road safety plan peer exchanges to State and regional meetings and symposia, to national-level events such as the Transportation Research Board Annual Meeting and the American Society of Civil Engineers annual convention. The DDSA team still has their bags packed, and will be represented at six more events before the end of summer.

In addition to participating in these many events, the team has also completed a series of 18 “How-To” and “Office Hours” webinars focused on topics ranging from “Systemic Safety Analysis Approaches with Limited Roadway Data” to a “Crash Course on DDSA in Project Development” to “Calibration and Development of Safety Performance Functions for DOT decision makers.” Many of these webinars were recorded and can be accessed available at the [Data-Driven Safety Analysis Resources](#) page.

The next no-cost webinar will be on the “**Crash Costs for Highway Safety Analysis Guide**” (see related story on p. 14). It will feature an overview of the Guide and demonstrate how to use the supplemental tool. The webinar will be held on **May 30, 2018 from 1:00-2:30 ET**. Those interested in attending can [register online](#).

In addition, dozens of educational workshops and training courses have been delivered to date, including HSM for Practitioners, IHSDM Training, and a Safety Analysis of Freeways and Interchanges course. Development of a web-based usRAP course is underway as is new training material for Systemic Safety Analysis training.

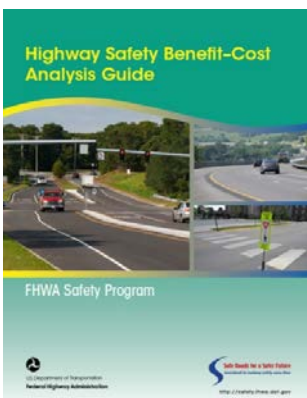
If you are interested in learning more about any of these DDSA topics or activities, please visit the [Data-Driven Safety Analysis Resources](#) page. If you would like to request technical assistance, please contact Jerry Roche at jerry.roche@dot.gov or John McFadden at john.mcfadden@dot.gov.



This map depicts the current EDC4 DDSA implementation status (as of December 2017) for each State and the goal attainment level each State has set for itself. Source: FHWA

TRANSPORTATION ECONOMICS 101: QUANTIFYING DIRECT AND INDIRECT SAFETY BENEFITS IN BENEFIT-COST ANALYSES

By: Michael Lawrence, Jack Faucett Associates;
Frank Gross, VHB; and Karen Scurry, FHWA



Once called the “dismal science,” economics is not an area many engineers expect to need to know much about, and many do not have a complete understanding of the role of economics in weighing the benefits and costs of safety countermeasures. As a result, when it comes time to select projects for funding, many are not sure

of the most accurate, data-based approach to use for assessing the alternatives.

To help practitioners manage this important step, the FHWA Office of Safety has issued the new [Highway Safety Benefit-Cost Analysis Guide and Tool](#) (the BCA Guide).

Overview of the Guide

[The BCA Guide](#) has been developed specifically for traffic and safety engineers or planners who are not economists and who may not have training in economic evaluation techniques. It is intended to help these staff make consistent and sound decisions for evaluating and ranking safety countermeasures and projects from an economic perspective.

The BCA Guide focuses on the safety benefits (i.e., expected change in crash frequency by severity) of competing highway safety projects and the benefits derived from changes in safety performance (e.g., reduced delay, travel time, and emissions resulting from fewer crashes). It explains how to quantify the expected change in safety among project alternatives and the operational and environmental impacts that result from a change in safety performance. It also explains how to monetize

What is Benefit-Cost Analysis?

Benefit-cost analysis (BCA) is a systematic process for calculating and comparing the benefits and costs of project alternatives. The purpose of a BCA is to capture all the benefits to society from a project or course of action as well as the cost to achieve those benefits, regardless of the form these benefits and costs take (e.g., lives saved, environmental impacts).

Why is BCA Important to Safety Management and Project Development?

The safety management and project development processes often include comparisons of multiple project alternatives. This may include alternative designs for a specific location or alternative projects as part of a program. A highway safety BCA helps to compare the cost-effectiveness of alternative designs and enables transportation professionals to consider safety-motivated projects in conjunction with resurfacing, rehabilitation, reconstruction, and expansion projects.

Benefits of BCA

Used properly, a BCA reveals the most economically efficient investment alternative; that is, the one that maximizes the net benefits to society relative to the allocation of resources. When oftentimes any number of safety countermeasures might enhance safety to the public, using BCA to determine the best “bang for the buck” can guide transportation professionals in choosing the best use of public funds.

those benefits to compute the net present value and benefit-cost ratio.

Transportation professionals can use the methods highlighted in the BCA Guide to analyze both site-specific and systemic safety approaches with single or multiple engineering countermeasures. The guide also provides user-friendly guidance for conducting a BCA for safety countermeasures by:

- Introducing fundamental BCA concepts such as the base condition, project analysis period, and discounting.
- Identifying types of agency costs to use and the types of benefits to consider in BCA.
- Describing methodologies for estimating and monetizing safety benefits of alternatives

(including changes in crash frequency and severity) and the changes in travel time, travel time reliability, vehicle operating costs, and mobile source emissions resulting from the change in crashes.

- Providing examples projects that evaluate the implementation of single countermeasures, multiple countermeasures, and multiple locations (e.g., a systemic approach to safety).
- Offering examples to communicate and present BCA results to various audiences, including decision-makers and the public.

Overview of the Tool

A spreadsheet-based tool ([the BCA Tool](#)) complements the BCA Guide. The BCA Tool helps users calculate project costs and benefits as well as economic measures such as the present value costs, present value benefits, net present value, and benefit-cost ratio. Decision-makers can use these measures to compare and rank project alternatives.

The BCA Tool only requires the user to provide basic data on estimated annual changes in crash frequency and severity and basic characteristics of the transportation facility (e.g., average daily traffic, facility type, and number of lanes). Like the BCA Guide, the BCA Tool does not require any special economic expertise. It includes default values for many required inputs, allowing the analyst to change the default values to reflect local conditions or agency preferences or policies. As such, the Tool provides a consistent, comprehensive, and reliable approach to estimate project costs and benefits among alternatives.

The Tool provides an opportunity to quickly and easily update data inputs and generate revised BCA results throughout the project development process. Using the BCA Tool, the analyst may update the BCA as project alternatives are refined, and more accurate project costs and benefits become available. Transportation agencies can also use the BCA Tool after project implementation, when project costs are finalized and the effectiveness of the countermeasure can be observed, to determine if the anticipated benefits are realized.

Highway Safety Benefit-Cost Analysis Tool

Home screen of the Highway Safety Benefit-Cost Analysis Tool.

For questions or comments about the Highway Safety BCA Guide and Tool, please contact Karen Scurry at karen.scurry@dot.gov. Note that FHWA offers [free training to State and local agencies](#) on the Highway Safety BCA Guide and Tool upon request.

MONTANA USES SPFs, LEVEL OF SERVICE SAFETY APPROACH TO IMPROVE INTERSECTION SAFETY

By: Roy Peterson, P.E., MDT Traffic & Safety Engineer and Patricia Walsh Burke, P.E., MDT Safety Engineer

The Montana Department of Transportation (MDT) recently completed a statewide intersection study that developed safety performance functions (SPFs) and crash pattern maps for 22 intersection types. SPFs are statistical models used to estimate the average crash frequency for a specific site type based on traffic volume and roadway segment length. These models and pattern maps will assist MDT in identifying and selecting locations with potential for greater crash reduction. This will significantly benefit both the Montana Highway

Safety Improvement Program and MDT's construction program by helping the agency to identify and address safety improvements with greater accuracy and effectiveness.

The models were developed from 5 years of statewide crash data (2010-2014) by DiExSys LLC of Colorado. They can be used on most intersection configurations and are not limited by roadway jurisdiction/ownership.

Using the Level of Service Safety Approach

Once the models identify an intersection of interest, MDT uses another method to define the magnitude of the safety problem. This method is the Level of Service of Safety (LOSS) concept. LOSS determines how a roadway segment is performing relative to its expected crash frequency and severity at a specific level of annual average daily traffic. It provides a comparison of crash frequency and severity with the expected norms, although it does not provide any information related to the nature of the safety problem itself. If a safety problem is present, LOSS describes only its magnitude. Once the safety problem is identified,

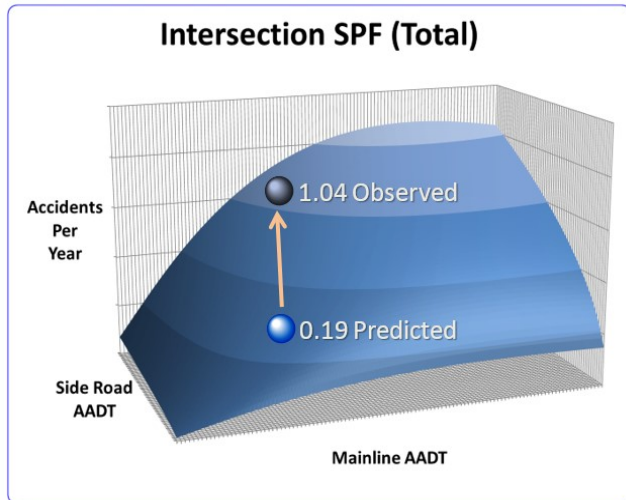


Figure 1. A Montana intersection SPF. Source: MDT

an agency can go on to determine the nature of the problem through diagnostic analysis. This approach allows each intersection to be analyzed to determine whether the actual LOSS is greater or less than the predicted number of crashes or severity of crashes for each intersection type (Figure 1.)

The LOSS ranges are broken down into four (4) categories:

- LOSS I – Indicates low potential for crash reduction.
- LOSS II – Indicates low to moderate potential for crash reduction.
- LOSS III – Indicates moderate to high potential for crash reduction.
- LOSS IV – Indicates high potential for crash reduction.

Using the LOSS concept, MDT will be able to quantitatively assess and qualitatively describe the level of safety for an intersection. This will allow engineers to effectively communicate the magnitude of the safety problem. In turn, MDT can redouble its efforts to improve safety at locations where the potential for crash reduction is greater. In addition, locations that are elevated based on a perceived safety concern can be vetted and evaluated by how they are actually performing.

Currently MDT is using these models to prepare its 2018 HSIP project list and will begin to incorporate

them into safety analyses performed during the design phase of other MDT projects. Further disbursement of these Montana-specific models will be made in late 2018 to consultants, city and county governments and other interested parties.

For more information about the MDT study, please contact Roy Peterson at roy.peterson@mt.gov or Peter Burke at pburke@mt.gov.

NEW! IHSDM VERSION 13.1.0 NOW AVAILABLE!

The [Interactive Highway Safety Design Model \(IHSDM\) - HSM](#) Predictive Method 2017 Public Release Update (version 13.1.0) is now available at no cost!

What's new in the IHSDM 2017 Release Update?

Expansion of the data entry and output/reporting options to include **mileposts** (MP).

Expansion of the scope of the IHSDM Economic Analyses Tool (EA Tool) so that it now applies to all facility types currently covered by the IHSDM CPM (i.e., Part C of the Highway Safety Manual).

Details of all enhancements can be found in the [Release Notes](#).

How do I obtain the 2017 Release Update?

Registered IHSDM users: visit the [IHSDM page](#) and use your username and password to access and download this new release. If you currently have an earlier version of IHSDM installed, a “call home” feature will remind you to update to the latest version the next time you use the software.

New IHSDM users: visit the “[Download Registration](#)” page at and follow the instructions.

Who do I contact for IHSDM technical support?

Contact the IHSDM Technical Support team at IHSDM.Support@dot.gov or (202)-493-3407.

SAFETY FOCUS AREA: VULNERABLE ROAD USERS

CAN A SLEEVE AND A GATEWAY IMPROVE PEDESTRIAN SAFETY? SEATTLE AND MICHIGAN SAY “YES”!

By: *Becky Crowe, FHWA Office of Safety*

The FHWA has been promoting the Safe Transportation for Every Pedestrian (STEP) program to address pedestrian safety at uncontrolled crossing locations by promoting crosswalk visibility enhancements, raised crosswalks, pedestrian refuge islands, pedestrian hybrid beacons (PHBs), and Road Diets. State DOTs and local agencies are partnering with FHWA to advance STEP, and together they are rolling out a variety of low-cost improvements to supplement proven countermeasures and increase pedestrian safety. Both the City of Seattle and the Michigan DOT (MDOT) are also tackling pedestrian safety by adding low-cost safety improvements such as reflective “sleeves,” realigned curbs, warning signs, and “gateway” treatments.

In 2012, the City of Seattle secured a grant from the Washington DOT to add retroreflective sleeves to approximately 2,000 of the city’s 8,000 STOP and YIELD sign posts. The sleeve is a three-sided reflector that attaches to a sign post and matches the sign’s background color. These treatments increase the conspicuity of the sign, especially for older, faded signs and during dusk and evening hours. The city considered local history and the MUTCD when deciding to add the sleeves. Before the widespread use of the metal sign post, the City of Seattle used 4 ft. by 4 ft. wooden posts painted red and white in a highly visible candy cane-like pattern, but it was not cost effective to paint or coat the newer metal sign posts with a similar pattern. However, the city found that the sleeve treatment required little time to install and featured low material costs (approximately \$22 per each 4-ft. section).

Chris Eaves, Senior Civil Engineer for the City of Seattle and originator of the retroreflective sleeve program, noted that, “From a purely cost and time perspective, the sleeves are quick to install and are inexpensive. An all-way stop can be upgraded in a few minutes, and [the upgrade is] ‘wet weather’ work that crews can perform when they may otherwise be unable to stripe roads or perform

hardscape maintenance.” The use of retroreflective sleeves is supported by the MUTCD (Section 2A.21), which states that retroreflective materials may be used on regulatory and warning signs. The MUTCD specifies that such materials must be 2-in. wide and match the corresponding sign’s background color.

Since the initial installations, the City of Seattle added the sleeves to an additional 3,000 signs, and other agencies have followed its example. The Washington DOT began installing retroreflective sleeves on signs at curves and on/off ramps, and the neighboring city of Shoreline, Washington, adopted Seattle’s approach for sign sleeves at crosswalks and intersections. Eaves recommends that interested municipalities and stakeholders consider the sleeve’s approved uses before beginning a similar program. For instance, after the city’s retrofitting program began, private developers began including sleeves, but these were not compliant with MUTCD requirements. The City has since formalized its policy to prioritize the sleeve treatment at critical locations like school crossings and low visibility intersections to ensure MUTCD compliance.

Meanwhile, across the country, the MDOT recently reported success with using “gateway” treatments. Gateways, designed to reduce vehicle speeds and improve driver yielding at crossing locations, consists of multiple R1-6 signs (“YIELD TO [or STOP FOR] PEDESTRIANS IN CROSSWALK”) installed at roadway edges and between travel lanes. Signs can be installed either on the curb, refuge island, or gutter pan, and on the roadway center line or lane markings.

Western Michigan University performed multiple studies to evaluate the gateway treatment across 15 pilot locations. The gateway treatment was found to be effective at increasing yielding and reducing speeds at crossings on roadways either with speeds of 30 mph or less or on roadways with speeds of 35 mph or less *and* annual average daily traffic (AADT) below 12,000. Compared to yielding rates before installation, driver yielding rates increased by an average of 15 percent. Total yielding rates averaged 75 percent, with some sites reaching 94 percent. Estimated costs for each gateway treatment ranged from \$900 to \$1,800, and installation took between 15 and 40 minutes per site.



Source: FHWA, Manual on Uniform Traffic Control Devices

Examples of R1-6 and R1-6a, which are mounted on a sturdy base and used as in-street “gateway” treatments.

Low-cost treatments have great potential to enhance pedestrian safety at crossing locations without straining budgets. However, new signage and pavement markings should comply with the MUTCD and complement proven countermeasures such as those promoted by the STEP program. Visit the [STEP web page](#) for more information about the program and its resources.

For more information about STEP, contact your local FHWA Division office or Becky Crowe, STEP program manager, at rebecca.crowe@dot.gov.

MOTORCYCLIST ADVISORY COUNCIL SEEKS WAYS TO IMPROVE INFRASTRUCTURE SAFETY

By: Gabe Rousseau, FHWA Office of Safety

According to [data from NHTSA](#), 5,286 motorcyclists were killed in the United States in 2016. In addition, although motorcycles account for 3 percent of all registered vehicles, in 2016, motorcyclists comprised 14 percent of all roadway fatalities. These statistics highlight critical safety need on our roadways. The challenge is to find infrastructure-based engineering solutions that will reverse this unfortunate safety trend.

In 2017, the Office of Safety established the Motorcyclist Advisory Council (MAC) to garner assistance from a broad range of safety and motorcycle interest groups in finding such solutions. The MAC is a federal advisory committee

established to provide advice and recommendations concerning infrastructure issues related to motorcyclist safety including barrier design; road design, construction, and maintenance practices; and the architecture and implementation of intelligent transportation system technologies.

In early 2017, FHWA solicited applications to serve on the MAC, and, during the summer, Secretary of Transportation Elaine L. Chao officially selected 10 experts from across the country to advise FHWA on the infrastructure issues described above. In December, FHWA convened the first MAC meeting in the Washington, DC, area, and the members began their discussions about this important safety issue. The [minutes](#) from this meeting are posted on the FHWA Safety website. This meeting and all future MAC meetings are open to the public.

The next meeting is being planned for early June and will be convened virtually (i.e., online). Meeting information will be announced in the *Federal Register* two weeks before it occurs. We look forward to working with the MAC to find solutions to ensure that motorcyclists can safely reach their destinations.

For more information, please contact Gabe Rousseau at gabe.rousseau@dot.gov.

SPRING PEER EXCHANGE FOCUSES ON STEP STRATEGIES FOR UNCONTROLLED CROSSINGS

By: Becky Crowe and Gabe Rousseau, FHWA Office of Safety

Representatives from FHWA and eight States met in Oklahoma City on March 13 and 14 to participate in a peer exchange sponsored by the Safe Transportation for Every Pedestrian (STEP) program. The purpose of the peer exchange was to discuss common challenges and strategies for addressing pedestrian safety at uncontrolled crossing locations. Local and State transportation officials from Arizona, Arkansas, Kansas, Louisiana, New Mexico, Oklahoma, and Tennessee each shared how they are working to achieve the goals set by their States through the Every Day Counts (Round 4) initiative. A representative from the Massachusetts Department of Transportation (DOT) participated by conference call to describe how pedestrian safety is incorporated within that State’s Complete Streets Funding Program.



Photo courtesy of Michael Hinkston.

Chase Phillips, a Transportation Planner and Safety Coordinator for the Indian Nations Council of Governments, gives the STEP Peer Exchange two thumbs up!

Key discussion themes included coordination between State and local agencies, growing an agency culture that prioritizes pedestrian safety, short-term implementation strategies, improving agency decision-making policies, and evaluating corridors for crash-based and risk-based improvements. For instance, the Arkansas DOT shared how it is working with the cities of Little Rock and Jonesboro to prepare corridor-level pedestrian safety plans. Learning from the practices shared, participants committed to taking action and continuing to share the practices they learned for improving pedestrian safety.

For more information, please contact Becky Crowe at rebecca.crowe@dot.gov or Gabe Rousseau at gabe.rousseau@dot.gov.

“HEADS UP” CAMPAIGN TARGETS PEDESTRIAN FATALITIES IN MAINE

By: Wayne R. Emington P.E., FHWA Maine Division

The Problem

Maine has recently experienced an increase in pedestrian fatalities. In 2014, Maine’s 5-year rolling pedestrian fatality average was 10.4 fatalities per year, but in 2015, 2016, and 2017, there were 19, 17, and 21 pedestrian fatalities.

Maine crash maps show that pedestrian crashes are concentrated in population centers, while pedestrian fatalities have been distributed throughout rural communities. Statistics from 2011 to 2015 show that 10 community clusters of 21 towns make up 29 percent of the State’s

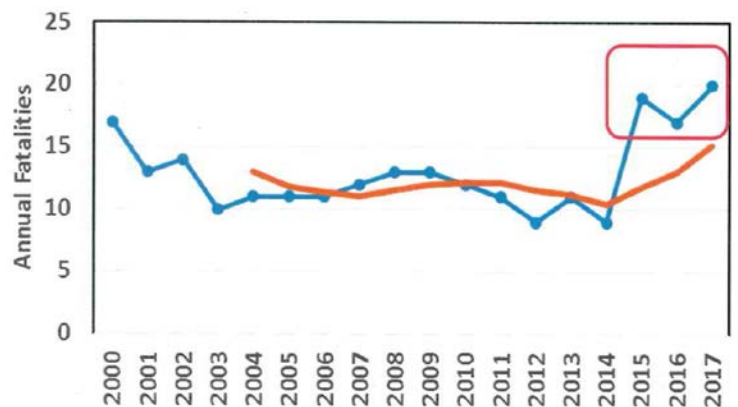
population, but account for 65 percent of the State’s pedestrian crashes, 35 percent of pedestrian fatalities, and 62 percent of pedestrian incapacitating injuries.

Pedestrian crashes in Maine (2011-2015).

	Crashes	Fatalities	Incapacitating Injuries
Statewide	1,397	63	291
21 Communities Results	905	22	181
Percent Total in the 21 Communities	64.8%	34.9%	62.2%

Other key takeaways from the data include:

- Most pedestrian *crashes* occur in daylight, in clear weather, and on dry roads.
- Two-thirds of pedestrian *fatalities* occur between dusk and dawn (when poor visibility and dark clothing are an issue).
- Most pedestrian crash victims are between 30 and 49 years old.



Pedestrian fatalities in Maine by individual year (blue) and 5-year rolling average (red) (2000 – 2017).

The Response

Reacting to the high number of pedestrian fatalities in 2015, MaineDOT convened a broad group of non-motorized safety stakeholders to discuss this multi-faceted problem and come up with data-driven solutions. The end result was a branded (“Heads Up”) multi-agency safety campaign with engineering, education, and enforcement components. The Heads Up campaign, which began in 2017, emphasizes public engagement and



Source: NHTSA

was incorporated into [Maine's 2017 Strategic Highway Safety Plan](#). Heads Up activities include:

Public Engagement

- [Pedestrian Safety Forums](#) to review [pedestrian crash data](#), and [prioritize locations](#) for road safety assessments (RSAs).
- Safer Walking Forums to brainstorm and prioritize education and enforcement actions.
- Community-specific pedestrian safety mitigation plans to reduce pedestrian crashes.
- MaineDOT distribution of reflective safety equipment at community events and meetings.

Engineering

- Public forums and RSAs that will lead to Highway Safety Improvement Program (HSIP) and Transportation Alternative Program projects.
- A pedestrian safety / traffic calming toolbox for use by State and local practitioners.
- An Every Day Counts-Safe Transportation for Every Pedestrian Action Plan recommending updates to pedestrian-related guidance.

Education

- [Local Technical Assistance Program \(LTAP\) Crosswalks & Sidewalks Training](#).
- A [Pedestrian Safety Interactive Story Map](#).
- A pedestrian safety outreach campaign leveraging television, radio, and [social media](#).
- Concentrated Safe Routes to School education.
- Focused outreach to at-risk or vulnerable populations (homeless, speakers of English as a second language, elderly, disabled).

Enforcement

- Law enforcement distribution of [free samples](#) of reflective safety equipment to pedestrians engaged in risky behaviors.
- Working with law enforcement to encourage consistent bicycle and pedestrian crash reports.

Spotlight: Pedestrian Safety Forums

MaineDOT's partnership with the Bicycle Coalition of Maine has received positive [media attention](#) for its [Pedestrian Safety Forums](#) and the State's diverse efforts to raise awareness on pedestrian safety issues.

These interactive forums provide an overview of Maine's pedestrian safety issues, pedestrian crash statistics, common beliefs, and misconceptions.

The forums also provide attendees the opportunity to identify problem areas within their community.

The forums begin with a [presentation](#) exploring perceptions and realities of pedestrian safety based on MaineDOT crash data. Participants use wireless clickers to provide feedback as they are quizzed on demographics and pedestrian safety information, providing instant audience feedback.

People are then asked to identify the most significant safety issues pedestrians face in their community, again using the clickers. The next phase involves small group discussion with maps and markers to pinpoint high-risk locations for pedestrians throughout the town.

After the break-out work, an open mic period is held to make sure everyone has had a chance to bring their issues before the group. The evening culminates in a prioritization activity using the clickers to determine the best locations in town for a road safety assessment that involves municipal officials, MaineDOT, and FHWA.

One goal of these public engagement events, and subsequent RSAs, is federally and/or State-funded pedestrian safety projects. FHWA participates in MaineDOT's Highway Safety Committee, which is charged with HSIP project programming and reviewing RSA results to determine when HSIP projects are warranted. For 2019, MaineDOT has set aside \$250,000 in HSIP funds for pedestrian safety and an additional \$150,000 specifically for crosswalk projects.

Outcomes

The 15 pedestrian safety forums that have been held so far have been well attended with 583 participants. FHWA has participated in several of the 15 forums, as well as 8 LTAP training sessions, and 6 RSAs held to date.



Photo courtesy of Wayne Emington

Attendees participate in group discussions at a Pedestrian Safety Forum.



Source: Maine DOT

MaineDOT cited Heads Up as a factor in their target setting decision for the non-motorized category. The agency established a 5-year annual average target of 90.0 for 2018, a reduction from a 2016 baseline of 91.2.

So far there has been only 1 pedestrian fatality in Maine in 2018. It may take years before we'll have

enough data to determine the overall success of Heads Up, but there is reason to be optimistic!

For more information on MaineDOT's pedestrian safety activities or the Heads Up campaign, contact Wayne Emington at wayne.emington@dot.gov.

Pedestrian and bicyclist fatal and serious injuries in Maine, 2003-2018 (projected)

Year	Fatality (K)	Serious Injury (A)	K+A	5 Yr. Rolling Average
2003	12	79	91	NA
2004	11	67	78	NA
2005	13	64	77	NA
2006	14	72	86	NA
2007	13	77	90	84.4
2008	17	66	83	82.8
2009	13	56	69	81.0
2010	13	51	64	78.4
2011	11	81	92	79.6
2012	10	101	111	83.8
2013	15	58	73	81.8
2014	11	87	98	87.6
2015	19	65	84	91.6
2016	21	69	90	91.2
2017*	22	71	93	87.6

*Data for 2017 are preliminary.

NA = Not available.

NEW RESOURCE ROUNDUP

NEW GUIDE TO SELF-ENFORCING ROADWAYS HELPS STATES, LOCAL AGENCIES REDUCE SPEEDING

By: Abdul Zineddin, FHWA Office of Safety R&D, and Guan Xu, FHWA Office of Safety

Each year, more than 13,000 people are killed in speeding-related crashes, and the majority of speeding-related crashes occur on roads that are not part of the Interstate System. Due to the substantial number of speeding-related crashes in rural areas, FHWA encourages traffic safety

improvement programs to apply proven crash-reduction strategies in these areas, focusing on reducing speeding-related crashes on moderate- and high-speed, two-lane rural highways, where the majority of these crashes occur.

One approach to mitigating speeding is by building what are called "self-enforcing roads" (sometimes called "self-explaining roadways"), which are roadways that are planned and designed to encourage drivers to select operating speeds that are consistent with the posted speed limit. To effect speed compliance, designers typically use geometric elements that encourage drivers to

select operating speeds that are appropriate for the intended purpose of the roadway. Properly designed self-enforcing roadways can be effective in producing speed compliance and may contribute to less severe crash outcomes.

[Self-Enforcing Roadways: A Guidance Report](#) identifies six self-enforcing road concepts and the processes needed to implement the concepts when designing or evaluating existing two-lane rural highways.

The newly released [Self-Enforcing Roadways: A Guidance Report](#) provides information to transportation agencies on how to produce self-enforcing roadways during the geometric design process. The report identifies six self-enforcing road concepts and the processes needed to implement the concepts when designing or evaluating existing two-lane rural highways. These six methods include: (1) the speed feedback loop process, (2) the inferred design speed approach, (3) design consistency methods, (4) applying geometric design criteria, (5) using a combination of signs and pavement markings, and (6) setting rational speed limits. These methods can be applied individually or in combination for planned or existing two-lane rural highways. This report is designed for transportation professionals, State departments of transportation, and researchers interested in designing and/or retrofitting roadways to induce drivers to drive at more appropriate speeds.

For more information, contact Abdul Zineddin, 202-493-3288, abdul.zineddin@dot.gov.

NEW GUIDE IMPROVES PEDESTRIAN SAFETY AT UNCONTROLLED CROSSINGS

By: Becky Crowe, FHWA Office of Safety

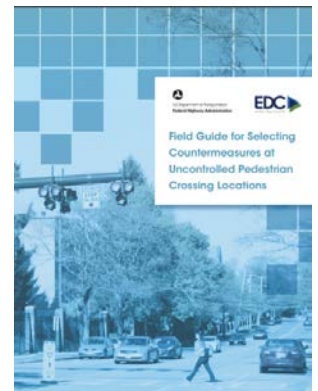
As part of the EDC-4 Safe Transportation for Every Pedestrian (STEP) program, FHWA released its [Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#) in January 2018. The FHWA guide follows a six-step process and provides tools that help agencies select countermeasures for uncontrolled crossing locations based on roadway characteristics and

pedestrian safety issues. The guide is supported by a [Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations](#) that helps practitioners document relevant roadway conditions, traffic information, and safety data.

FHWA also provides a poster-sized graphic that illustrates the guide's six-step process. These guides and supporting resources are posted to the [STEP program website](#).

FHWA presented the guide during a recorded [webinar](#) on January 30, 2018. More than 500 attendees participated in the webinar, representing local and State governments across the United States. According to one webinar participant, "I thought the webinar was very informative, especially the table for crosswalk treatment options for different roadway scenarios." During the webinar, participants were asked which of STEP countermeasures were least familiar. Participants indicated they were least familiar with the pedestrian hybrid beacon (42 percent of respondents) followed raised crosswalks (28 percent). These responses will help inform future STEP webinar themes and technical assistance offered through the STEP program.

For more information on the Guide and associated resources, or the EDC4 STEP initiative, please contact Becky Crowe at rebecca.crowe@dot.gov.



NEW STUDY SUGGESTS UPDATED CRASH COSTS FOR USE IN HIGHWAY SAFETY ANALYSIS

By: Karen Scurry, FHWA Office of Safety

Everybody has heard the old adage "garbage in, garbage out," and it's commonly understood that when conducting safety data analyses, it's important to have the highest quality data available so that the results of the analysis are as accurate as possible. Faced with ongoing funding and

human resource limitations, States often have difficulty obtaining the high-quality data they need to conduct accurate safety analyses.

To alleviate this challenge, FHWA recently commissioned a study to determine the feasibility of establishing national crash costs for use in highway safety analysis. States often use crash costs when estimating the safety benefits of highway safety improvement projects. Each State independently selects, modifies, and updates these crash costs from one or more sources for their highway safety analyses. National costs would provide consistency in project decisions and research, while lessening the burden on States to each adopt and maintain their own crash costs.

The result of this study is a new guide, [Crash Costs for Highway Safety Analysis](#), which proposes a set of national crash unit costs for use in the FHWA [Highway Safety Benefit Cost Analysis Guide and Tool](#) (see related story on p. 4). It also suggests procedures to (1) update the crash unit costs over time and (2) adjust the crash unit costs to States based on State-specific cost of living, injury-to-crash ratios, and vehicle-to-crash ratio. A [Supplemental Spreadsheet to Calculate Crash Costs](#) allows users to implement these procedures.

The guide describes the various sources of crash costs, current practices and crash costs used by States, critical considerations when modifying and applying crash unit costs, and an exploration of the feasibility of establishing national crash unit cost values. This guide recommends national crash costs for use in highway safety analysis as shown in the table below.

Recommended national KABCO comprehensive crash unit costs (2016 dollars).

Severity	Comprehensive Crash Unit Costs
K	\$11,295,400
A	\$655,000
B	\$198,500
C	\$125,600
O	\$11,900

Want to learn more? **Join us for a webinar on Wednesday, May 30, 2018 from 1:00 – 2:30 PM ET.** The webinar will feature an overview of the *Crash Costs for Highway Safety Analysis Guide*

and demonstrate how to use the supplemental tool. You'll also hear about one State agency's experience with the tool and how it is using the results to support highway safety analysis. [Register for the no-cost webinar today!](#)

For more information, contact Karen Scurry at karen.scurry@dot.gov.

NOW AVAILABLE! SAFETY PERFORMANCE MANAGEMENT TARGET SETTING COMMUNICATIONS PLAN AND TOOLKIT

By: David Kopacz, Danielle Betkey, and Dana Gigliotti, FHWA Office of Safety

Communicating your performance story with a variety of audiences is important throughout all stages of the safety performance target-setting process. The FHWA Office of Safety developed a [Safety Performance Management Communications Plan and Toolkit](#) (Toolkit) to

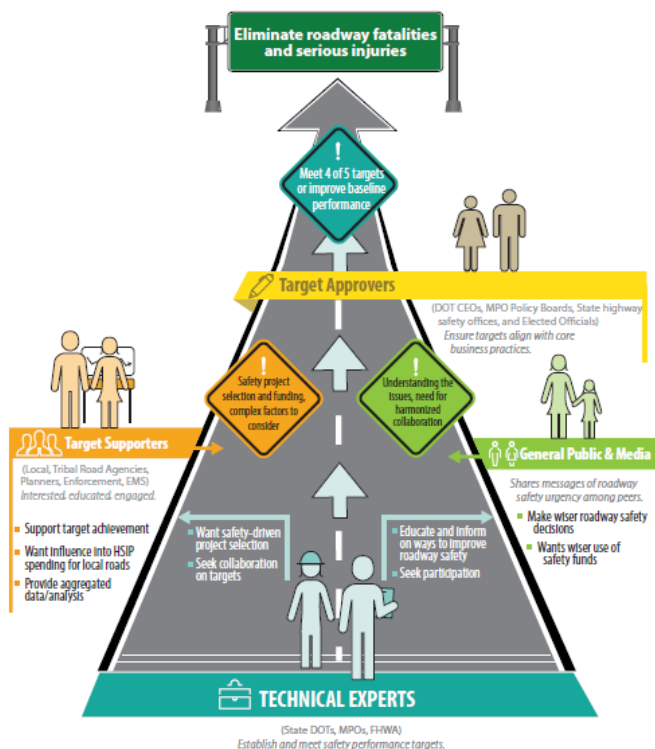
assist State departments of transportations (DOTs) and metropolitan planning organizations (MPOs) in communicating why safety performance targets are being

established, which stakeholders are affected, and how a variety of audiences can get involved in helping establish the targets or in target achievement. The Toolkit includes six elements that can be customized and used together or separately, including a dashboard, presentation slides, press releases, a memo to target approvers, talking points, and a social media kit. These resources will help State DOTs and MPOs provide their stakeholders with the underlying rationale on how targets were established, encourage action towards meeting performance targets, and support implementation of activities that will help achieve the targets.

This communications plan and toolkit comes at an ideal time, as implementation of the new Safety Performance Management (PM) Final Rule is underway. States provided their first round of annual safety performance targets for 2018 in their



Highway Safety Improvement Program reports, submitted to the FHWA in August 2017. The five safety performance measures for which States set annual safety performance targets are number of fatalities, rate of fatalities per 100 million vehicle miles traveled (VMT), number of serious injuries, rate of serious injuries per 100 million VMT, and number of non-motorized fatalities and non-motorized serious injuries combined. During this first round of the safety target setting process, State DOTs worked with their State Highway Safety Offices to identically align three of the safety performance measures (number of fatalities, rate of fatalities per 100 million VMT, number of serious injuries). States also coordinated with MPOs, which established their annual safety performance targets and submitted them to their respective State DOT by February 2018.



Collaborative process to set and achieve Safety Performance Measure targets. Source: FHWA.

As State DOTs and MPOs begin to prepare for the next round of safety target setting for 2019, communication is essential. Since safety target setting is a collaborative process, it requires working with audiences that have varying technical knowledge and perspectives related to safety performance management. This Toolkit describes the variety of audiences who will have a leading or supporting role in both setting and achieving targets

or who may be interested in potential outcomes and impacts associated with implementing the Safety PM Final Rule. It will also help State DOTs develop customized messages by providing guidance on the appropriate forums and whom the messages should target.

The Communications Plan and Toolkit, along with several other resources, is available on FHWA's [Safety Performance Management webpage](#).

GOT QUESTIONS ABOUT HFST?

We Have Answers!

By: Joe Cheung, FHWA Office of Safety

What are the safety effects of High Friction Surface Treatment (HFST) for motorcyclists and bicyclists? Is HFST a cost-effective solution? How durable is HFST, and what are its maintenance requirements? As interest in HFST has grown, so has the variety of questions practitioners have been asking. In response, FHWA recently updated the previously published HFST FAQ with more current technical information about this highly effective treatment. Because of the broad range of questions, the list is divided into specific areas of interest, including

- [Safety](#)
- [Maintenance and Operations](#)
- [Cost](#)
- [Environmental Impacts](#)
- [Material Specifications / Durability](#)
- [Installation](#)
- [Lessons Learned](#).

Key information has been added in each category. For example, under [Material Specifications / Durability](#), readers can learn about the proper technique to recover/reuse left over aggregate or find new aggregate studies from the National Center for Asphalt Technology (NCAT). They can also review a comparative discussion of the different installation methodologies under [Installation](#).

Whatever your question is, we encourage you to visit the [HFST Frequently Asked Questions](#) page to find the answer and learn more about the many benefits of this ground-breaking treatment for improving safety on horizontal curves. If you need

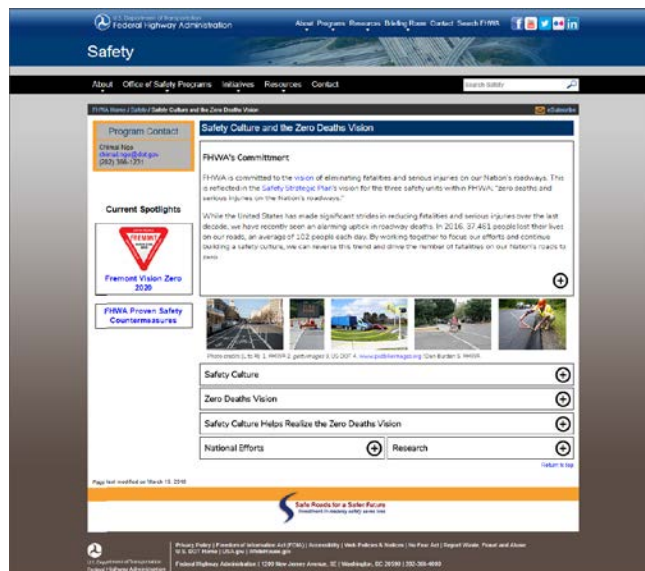
additional information about HFST, or to inquire about technical assistance, please contact Joseph Cheung at joseph.cheung@dot.gov.

FHWA LAUNCHES REDESIGNED ZERO DEATHS WEBPAGE

By: Chimai Ngo, FHWA Office of Safety

This spring, the Office of Safety re-launched its Zero Deaths webpage, featuring updated content and a refreshed, more user-friendly interface. Renamed “Safety Culture and the Zero Deaths Vision,” the new web page is more streamlined and better structured and offers a more visually appealing interactive design. It provides the transportation community with up-to-date information on related efforts and access to external partners’ websites. A new “Current Spotlights” feature highlights noteworthy practices and initiatives and will be updated on a regular basis. We encourage you to bookmark the [Safety Culture and the Zero Deaths Vision webpage](#) and visit often to learn more about FHWA’s commitment

to the zero deaths vision and the transportation community’s notable efforts to reach the zero deaths goal. If you have questions regarding the webpage, please contact Chimai Ngo at chimai.ngo@dot.gov.



NHTSA Deploys New Interactive Portal for Traffic Safety Facts Annual Report

The National Highway Traffic Safety Administration (NHTSA) has deployed a dynamic and interactive online portal for its annual traffic safety report, [Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System](#). This portal gives users the ability to generate the numerous descriptive statistics about traffic crashes of all severities, from those that result in property damage to those that result in the loss of human life.

This new portal fulfills a long-standing need for NHTSA to provide the tables in a more timely and easily accessible manner. It does this by incorporating features that allow users to output tables in various popular formats such as Excel and PDF and to request national and State-level versions of tables in cases where this type of data is available. In addition, users can also generate historic tables.

The data sources for this report are the Fatality Analysis Reporting System (FARS, 2010-2016) and the National Automotive Sampling System General Estimates System (NASS GES, 2010-2015). (Note: NASS GES was discontinued in 2016 and replaced with a new system called the Crash Report Sampling System (CRSS).) The 2016 data year is the first data collection year of CRSS and estimates for injury and property-damage-only crash estimates for 2016 will be available soon.

LEARNING TOGETHER

NEW! SAFETY DATA AND ANALYSIS FUNDAMENTALS TRAINING

By: Esther Strawder, FHWA Office of Safety

The Office of Safety has a brand-new course designed to provide basic safety data and analysis information for planners, project managers, engineers, data collectors, and analysts, as well as program managers. The new “Safety Data and Analysis Fundamentals Training” course is available through NHI 380122 as a totally web-based offering with continuing education unit eligibility. For more information, please contact Esther Strawder at Esther.Strawder@dot.gov.

TENNESSEE DIVISION HOSTS ROAD SAFETY ASSESSMENTS FOR LAW ENFORCEMENT

By: Jessica Rich, Tennessee Division Safety Engineer

Often times, law enforcement and first responders work on recurring crashes at the same location. Sometimes, writing tickets isn't enough, and a broader perspective is needed to understand why those crashes occur. The Tennessee Division hosted two pilot Road Safety Assessments for Law Enforcement and First Responders workshops in Nashville and Alcoa, TN.

This two-day workshop, sponsored by the FHWA Resource Center Safety and Design Team, provides law enforcement and first responders with an exploration of some of the enforcement and engineering countermeasures and strategies that can be implemented to improve safety in our communities and save lives.

Participants learned the importance of investigating crashes from a broader perspective than solely from the legal violation standpoint. Skills acquired through the workshop include determining whether a “hot spot” needs additional corrective action beyond enforcement, (i.e., education, EMS, engineering), understanding the differences in possible causes of crashes and countermeasures, understanding the three elements of crash causation and their interaction, and understanding road safety assessments and how to conduct one.

Law enforcement, emergency response personnel, and traffic engineers found common ground on which to work together and even initiate resolution of issues that had been problems for law enforcement in smaller agencies for years.

Participants stayed engaged by participating in short surveys throughout the class. Attendees also reviewed a project completed by the Tennessee Department of Transportation, which taught them the importance of ensuring all stakeholders are involved with the analysis of a hazardous location.

For more information on this workshop, contact Craig Allred, FHWA Resource Center Safety and Design Team at craig.allred@dot.gov.

SAFETY FOCUS AREA: WORK ZONES

FHWA AND PARTNERS LAUNCH NATIONAL WORK ZONE AWARENESS WEEK FOR 2018

“Work Zone Safety: Everybody’s Responsibility”

By: Martha C. Kapitanov, Office of Operations

#Orange4Safety or #OrangeForSafety? Both hashtags were used to promote work zone safety awareness during this year’s National Work Zone Awareness Week (NWZAW) April 9-13.

The NWZAW kick-off event was hosted by Illinois DOT on April 10th adjacent to the Jane Byrne Interchange reconstruction Project in the Chicago metro area. FHWA joined the American Traffic Safety Services Association, the Federal Motor Carrier Safety Administration, the National Highway Traffic Safety Administration, the Occupational Safety and Health Administration (OSHA), the American Association of State and Highway Transportation Officials, the American Road & Transportation Builders Association, the Associated General Contractors, Illinois DOT, and other stakeholders to raise work zone safety awareness during the kick-off event.

Total Work Zone Fatalities

	2016	2015	% Change
Drivers and passengers	765	712	7
Pedestrians and bicyclists	635	595	7
Others	5	4	25

On Wednesday, April 11, agencies around the country encouraged their employees to wear orange to show their support for the work zone safety message, and especially to support the families of victims who have lost their lives in work zones.

The message this year for everyone driving, walking or working in and around work zones is “Work Zone Safety: Everybody’s Responsibility.” To improve safety in and around work zones, two brochures have been developed under an FHWA Work Zone Safety Grant to help improve work zone safety. The first, “[Driving Safely in and Around Work Zones](#),” is targeted at drivers of passenger vehicles and the second, “[Safe Trucking Through Work Zones](#),” is designed to assist truckers in learning how to navigate a work zone safely.

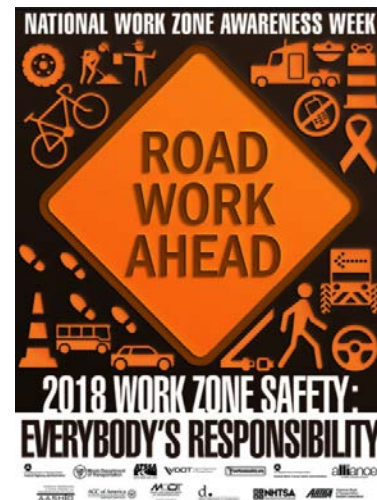
In 2016, the most recent year for which we have data, 765 traffic-related fatalities occurred in work zones (Fatality Analysis Reporting System 2015 Final and 2016 Annual Report File), a 7 percent increase from 2015. Fatal work zone crashes take place most often in summer and fall. Based on data from the Bureau of Labor Statistics (2015 and 2016 U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries), 143 workers were killed at highway construction sites (work zones),² a 10 percent increase from 2015. Struck-by crashes are the leading cause of worker fatalities and injuries in highway construction. On average, 14

motorists and 2 highway workers are killed in work zones each week. The goal of OSHA’s [Focus Four Hazards](#) campaign is to raise awareness about the importance of recognizing, evaluating, and controlling the four hazards (falls, struck-by, electrocution, and caught-in/between) through the delivery of “[toolbox talks](#),” available

through the FHWA Work Zone Safety Clearinghouse, that employers can provide to their workers.

FHWA develops and provides a broad array of guidelines and training, conducts research, implements regulatory changes, and works continuously to increase public awareness through partnering activities. For information and resources, visit the [FHWA Work Zone Management](#) web site. Visit the [National Work Zone Safety Week](#) web page to learn more about this annual national event.

Since 2005, the FHWA Work Zone Safety Grant Program has funded more than \$40 million in grants for developing and conducting work zone safety guidance and training. To date, more than 3,900 courses have been conducted for over 104,000 field workers, state/local DOT personnel and other transportation agency staff. More detailed information on each product or resource, including access to materials, is available at the [National Work Zone Safety Information Clearinghouse](#).



AWARDS NEWS

FHWA ISSUES 2017 SAFETY LEADERSHIP AWARDS, LIFETIME ACHIEVEMENT AWARD

Early this spring, FHWA announced its 2017 awardees, who have been recognized for their leadership in furthering the cause of zero fatalities and serious injuries on our Nation’s roadways.

These awards have been presented annually since 2000 to recognize employees for their demonstrated leadership and accomplishments in highway safety. Congratulations to the 2017 recipients!

FHWA Safety Leadership Peer Awards

Nicholas Fortey, Oregon Division Office. This award recognizes Nick’s notable accomplishments advancing safety in Oregon. Nick effectively

promoted implementation of numerous Every Day Counts initiatives and played a key role in advancing data driven approaches to reducing crashes and fatalities. He initiated activities to analyze both intersection and run-off-the-road crashes for use in aiding the statewide development of priority-based response strategies. Nick was instrumental in Oregon's decision to adopt the corridor-based design exceptions that led Oregon to align asset management with highway safety—a concept subsequently presented at a Transportation Research Board annual meeting. Nick also assisted Oregon in the effort to resolve issues and allow bike boxes to be implemented with experimental status per the Manual of Uniform Traffic Control Devices. His vast knowledge of the safety program and his passionate approach to bringing safety improvements to his State have been a major advantage to Oregon.

Mark Doctor, PE, Resource Center, Safety & Design Technical Services Team. This award recognizes Mark's substantial contributions to safety nationally. Mark has played a major role in accelerating the application and use of innovative intersections and geometrics for intersection and interchange design and evaluation. He has been a considerable asset to agencies as they learn how to design and implement changes in business practices that help bring innovative solutions to fruition. Mark's efforts have been critical to the promulgation of intersection control evaluation (ICE) policies throughout the country. These policies empower engineers and decision makers to improve design decisions and develop projects that save lives. Mark has also been instrumental in FHWA's EDC efforts promoting Road Diets, Complete Streets, and context sensitive solutions. He is a recognized and sought-after leader who has helped to build FHWA's strong reputation among public and private sector stakeholders. He has continually excelled in leadership roles and mentoring colleagues. Mark is the epitome of professionalism and elevates the standard of care through excellent communication and collaboration.

Howard Anderson Lifetime Achievement Award

In 1974, Howard Anderson was named the first FHWA Associate Administrator for Safety. In honor of his safety contributions to our agency, the annual Howard Anderson Lifetime Achievement Award was established in 2014 to recognize an FHWA

employee who exemplifies outstanding and significant service to the safety discipline over his or her career. Nominees are evaluated for continuous efforts to champion safety both internally and externally to FHWA.

Dr. Raymond Krammes, Transportation Specialist, FHWA Office of Safety, is the recipient of this prestigious recognition.



Photo courtesy of Beth Alicandri.

Congratulations to Ray Krammes on being selected for the Howard Anderson Lifetime Achievement Award!

Ray Krammes recently retired from FHWA on December 8, 2017, after providing safety leadership in FHWA Safety R&D, the Office of Safety, and with many FHWA partner organizations for more than 20 years. Ray was most recently a leader in developing, managing, and evaluating programs to improve State and local agencies' safety data systems and analysis capabilities. He also led an agency-wide group that developed FHWA's position on performance-based practical design and co-led the development and implementation of a roadmap for research, development, and technology transfer activities to improve safety data systems and analysis. Prior to joining FHWA, Ray served on the faculty of the Texas Transportation Institute. After joining the FHWA, he became a leader in incorporating safety into geometric design. He led research and deployment efforts that advanced the concepts and principles in the Highway Safety Manual and associated tools. He was on the original steering committee that developed the first ever Transportation Research Board (TRB) International Symposium on Geometric Design, which has now been held multiple times at locations around the world. He served as the Chairman of several TRB Committees and Task Forces and has been a vital

contributor to many others at TRB and AASHTO. In recognition of his immense contributions to safety during his public service career, he has been recognized with numerous accolades and awards. Ray's personal contributions to safety and design have laid a foundation of standards and practices that will have positive effects on the way the

highway community works to save lives for many years to come.

It is for this dedication to a lifetime of work in highway safety that Raymond Krammes is the recipient of the 2017 Howard Anderson Lifetime Achievement Award.

ANNOUNCEMENTS

FHWA and FRA Joint Webinar Series Continues in 2018!

By: Kelly Morton, FHWA Office of Safety

The FHWA and Federal Railroad Administration (FRA) joint webinar series, designed to help practitioners apply the latest approaches for advancing safety at rail-highway crossings, continues to be a huge success! The FHWA-FRA joint webinar series discusses a variety of rail-highway grade crossing issues as well as tools and strategies to enhance safety. The webinars are open to all partners, including Federal, State, local and railroad agencies, and have been widely popular with hundreds of attendees.

The most recent webinar was held Wednesday, April 25, 2018, and provided a demonstration of FRA's *GXDash!* as well as an overview of MUTCD Chapter 8 and ENS signs. Previous joint webinars have focused on such interesting topics as State Action Plans, Grade Crossing Inventory, and the Section 130 program. Recordings of the April webinar, as well as the previous webinars in the series, are posted on the FHWA [Rail-Highway Crossings Program webpage](#) under the Resources section.

[American Society of Civil Engineers \(ASCE\) 2018 International Conference on Transportation and Development, July 15-18, 2018, Pittsburgh, PA.](#)

This annual conference is organized to facilitate exchange of information, knowledge, and best practices among transportation and development practitioners and researchers, public infrastructure owners, policy makers, government engineers and planners, operations managers and leading academics from around the world. Attendees will discover the latest innovations and learn more about major technologies and their impact on transportation and development; network with other professionals in the areas of infrastructure planning, design, operation, and management; and get up-to-date information about federal and state policies and initiatives that are shaping the civil engineering profession.

[National Association of Counties 83rd Annual Conference & Exposition, July 13-16, 2018, Nashville, TN.](#)

This annual meeting draws a cross-section of elected officials and county staff from across the country. Attendees from rural and urban counties, with large and small budgets and staff,

come together each year to this event to shape the association's Federal policy agenda, learn, network and share successful practices all aimed to help improve residents' lives and the efficiency of county government.

[2018 National LTAP/TTAP Conference, July 23-26, New Orleans, LA.](#) This year's conference will feature presentations on safety innovations and breakout sessions on a broad range of topics, including local road safety plans, finding trainers, innovative outreach, social media best practices, safety circuit rider programs, and overcoming barriers to innovation, among many others.

[43rd Intl. Forum on Traffic Records & Highway Information Systems, August 12-15, 2018, Milwaukee, WI.](#)

This year's program will include an array of presentations dedicated to topics including drugged driving, interlocks, roadway data collection, roadway data integration, automated courts, court system integration, EMS and injury surveillance, dashboards, data quality, and hot topic subjects on technology. The forum will again provide sessions that include the latest safety data collection methods and best practices. Attendees

will join data analysts, State and local law enforcement officials, engineers, motor vehicle officials, emergency medical services providers, judicial administrators, and highway safety professionals from across the United States and international communities.

[Institute of Transportation Engineers \(ITE\) 2018 Annual Meeting & Exhibit, August 20-23, 2018, Minneapolis, MN.](#) Come to Minneapolis this fall to learn about the wide spectrum of topics that directly impact the transportation industry. Attendees will experience expert commentary, compelling presentations, and peer discussion on various aspects of the critical issues facing transportation professionals today, including, but not limited to:

- Taking steps to eliminate fatalities and serious injuries.
- Linking transportation strategies and health impacts.
- Making communities smarter.
- Deploying connected and automated vehicles.
- Designing complete streets; moving people, not just cars.

[Governor's Highway Safety Association 2018 Annual Meeting, August 25-29, 2018, Atlanta, GA.](#)

The theme for this year's annual meeting is **"Joining Forces to Get to Zero: Partnerships in Traffic Safety."** Achieving zero deaths on our roadways will require collaboration among a number of professional disciplines across the public and private sector. Attendees will also learn about advancements in autonomous vehicle technology and the impacts on safety. Attendees will include:

- State Highway Safety Office directors and their staff.
- Federal highway safety professionals.
- Technology providers.
- Public health officials.
- Law enforcement professionals.
- Private sector highway safety partners.
- State Highway Safety Office sub-recipients.

The ***Safety Compass Newsletter***

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FHWA Office of Safety
1200 New Jersey Ave., SE
Room E71-320
Washington, DC 20590

The Safety Compass is available online at the FHWA Office of Safety website at: <http://safety.fhwa.dot.gov/newsletter/safetycompass/>.

We welcome your comments and highway safety-related articles. The purpose of this newsletter is to increase highway safety awareness and information and to provide resources to help save lives.

We encourage readers 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 Tara McLoughlin at: tara.mcloughlin@dot.gov.