

## Roadway Safety Award Winners Demonstrate A Commitment to Safety

Each year, the Roadway Safety Foundation and the Federal Highway Administration (FHWA) jointly sponsor The Roadway Safety Awards program to showcase and share the “best safety practices” recognized throughout the U.S. Following are reports on the 2007 winners. To highlight your safety efforts, look for the 2009 application on the Transportation Safety Planning web site, <http://tsp.trb.org>.

### **Missouri DOT:**

#### ***Systemwide Installation of Median Cable Barrier***

Through an analysis of the State’s crash data, the Missouri Department of Transportation (MoDOT) recognized an emerging problem of severe cross median crashes on its most heavily traveled roadways. To address this safety concern, Missouri began an effort to install median cable barriers systemwide on its major interstates. The key to the success of this improvement was the installation of low-cost safety devices across the entire system – even at locations without a history of severe crashes.

Cable barrier has performed successfully in Missouri, catching over 95 percent of vehicles entering the median. Most importantly, it is saving lives. The installation of the cable median barriers along



with other engineering improvements, including rumble stripes, smoother pavement, better and brighter signing, and striping and reflective markings to keep drivers on the road along with increased enforcement and education have helped Missouri reach their fatality reduction goal a year ahead of time. Fatalities in the State dropped dramatically from 1,257 in 2005, to 1,096 in 2006 (the largest drop in traffic-related fatalities in 2006 of any state in the nation), and finally to under 1,000 in 2007 (a nearly 24 percent reduction in the

last two years). Missouri traffic fatalities have not been that low since 1993, when the fatality total was 949.

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### **Ohio DOT:**

#### ***Integration of Roadway Safety into Metropolitan Planning Organization Process***

In 2005, the Ohio Department of Transportation (ODOT) began to integrate safety data and needs into the Metropolitan Planning Organization (MPO) planning process. The agency has now conducted safety workshops with all of Ohio’s 17 MPOs and is working with local representatives to develop annual safety work plans based on crash analysis and public input. This program is significant since roughly 57 percent of fatal crashes and 45 percent of incapacitating injuries occur within Ohio’s cities each year.

To date, five MPOs have developed work plans and have received funding assistance to make improvements on local roads using the 4Es: engineering, education, enforcement, and emergency medical services. The remaining MPOs have plans in the development process. The final work plans become part of the MPO planning process and are reviewed annually to evaluate the effectiveness of improvements in reducing crashes and to determine if new locations should be considered for review and improvement.

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## FTA and NARC Sign Safety Cooperative Agreement

On April 1, 2008 the Federal Transit Administration (FTA) finalized a Cooperative Agreement with the National Association of Regional Councils (NARC) to educate transportation planners and transit safety professionals of small and midsize regions on the importance of integrating transit safety into the metropolitan transportation planning process. NARC's membership consists of Regional Councils (RC) and Metropolitan Planning Organizations (MPO). Under this cooperative agreement, NARC will document three case studies, prepare a brochure, hold a webinar, and produce a final report on how transit safety planning can be incorporated into the transportation planning process. FTA and NARC will jointly utilize this research to provide RCs and MPOs with up-to-date information, technical assistance, and a forum for discussing issues of mutual concern on transit safety and security planning.

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*The FTA/NARC cooperative agreement is aimed at providing assistance to small and midsize regions on integrating transit safety into the planning process.*

## New Guidebooks on CMP and M&O Available

Interim guidebooks that offer a "best practices" approach to SAFETEA-LU requirements for the Congestion Management Process (CMP) and Management and Operations in the Planning Process (M&O) will become publicly available in April. The guidebooks are the result of an intensive effort by Federal Highway Administration's (FHWA) Office of Planning, Environment and Realty, FHWA's Office of Operations, and Federal Transit Administration's (FTA) Office of Planning to develop information that will assist states, Metropolitan Planning Organizations, transit operators, and localities as they work to make quality improvements to their CMP and M&O processes in compliance with SAFETEA-LU.

The documents have been designated as "interim" to allow transportation stakeholders to examine them and provide additional feedback. The final documents will be available in fall 2008. To support the release of these documents, FHWA and FTA are commencing a wide-ranging outreach program that will include webinars and workshops across the country in spring/summer of 2008 to explain the philosophies contained in the guidebooks, as well as solicit additional feedback on the best practices.

Look for the guidebooks to be published on FHWA's Planning for Operations web site (<http://plan4operations.dot.gov/>) later during the month of April. Any questions on the CMP and M&O Interim Guidebook documents can be directed to Rick Backlund of FHWA at [Richard.Backlund@dot.gov](mailto:Richard.Backlund@dot.gov).

## Truck Crash Overview

The 2006 Large Truck Crash Overview, available from the Federal Motor Carrier Safety Administration (FMCSA), provides information on truck crashes by trends, vehicles, drivers, and crash environment. According to FMCSA, of the 42,642 people killed in motor vehicle crashes in 2006, 12 percent (4,995) died in crashes that involved a large truck, and another 106,000 people were injured in crashes involving large trucks. Only about 16 percent of those killed, and 22 percent of those injured in large truck crashes, were occupants of large trucks.

From 1996 to 2006, the number of large trucks involved in fatal crashes dropped by 0.5 percent and the number of large trucks in fatal crashes per 100 million vehicle miles traveled declined in these years from 2.60 to 2.12, an 18 percent reduction. A copy of the complete report is available at <http://ai.fmcsa.dot.gov/CarrierResearchResults/PDFs/2006LargeTruckCrashOverview.pdf>.

## 2007 Version of IHSDM Available

The Federal Highway Administration recently released the 2007 version of the Interactive Highway Safety Design Model (IHSDM), a decision support tool for evaluating safety and operational effects of geometric design decisions on two-lane rural highways. IHSDM checks existing or proposed two-lane rural highway designs against relevant design policy values and provides estimates of a design's expected safety and operational performance. Intended users include highway project managers, designers, and traffic and safety reviewers in state and local highway agencies and engineering consulting firms. To download the latest version free of charge, visit <http://www.ihsdm.org/public/index.html>.

## NCHRP Guide on Young Drivers

The National Cooperative Highway Research Program (NCHRP) released the latest in the Report 500 series which is designed to assist with implementation of AASHTO's Strategic Highway Safety Plan. A Guide for Reducing Collisions Involving Young Drivers (Volume 19) includes strategies to reduce collisions involving this vulnerable population.



Motor vehicle crashes are the leading cause of death for young persons in the U.S. This is the case whether crash rates are measured per population, per licensed driver, or per mile traveled. To address this problem, the guide offers strategies in several key areas, including graduated driver licensing systems, enforcement and adjudication of laws pertaining to young drivers, ways to help parents manage their teen's driving, young driver training, and school-based strategies. A copy of the guidebook is available at: [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_500v19.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_500v19.pdf).

## Advance Planning Risk Analysis Tool

The Center for Transportation Research at the University of Texas published a User Guide for the Advance Planning Risk Analysis Tool (APRA) that can help optimize the identification of requirements during the project development process. The guide is a companion piece to the previously published Implementation Guide. APRA uses the Microsoft Office Excel platform and the Visual Basic Application (VBA) programming language. No installation is required; a user just needs to copy the file containing the tool onto a computer. A copy of the User Guide is available at [http://www.utexas.edu/research/ctr/pdf\\_reports/0\\_5478\\_P1.pdf](http://www.utexas.edu/research/ctr/pdf_reports/0_5478_P1.pdf).

## U.S. Road Assessment Program Update

The AAA Foundation for Traffic Safety released a report on the second phase of the organization's U.S. Road Assessment Program (usRAP), a road risk assessment tool that could help ensure dollars are spent on roads and bridges with the greatest safety problems. Phase II of the pilot program further developed risk mapping concepts in Florida and New Jersey on local crash issues of interest, including unbelted occupants, speed, alcohol, lane departure, commercial-vehicles, older-drivers, and young drivers. Phase II also included a new road assessment protocol for performance tracking to monitor the changes in safety over time for specific roadway sections. To view the report, visit <http://www.aaafoundation.org/pdf/usRAPPhaseIIReport.pdf>.

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## Award Winners Commit to Safety

**South Carolina DOT:**  
*Let 'Em Work, Let 'Em Live! Obey the Law*

In 1999, the South Carolina Department of Transportation (SCDOT) ambitiously contracted to complete 27 years of highway construction in a seven-year period, quadrupling construction with an anticipated resulting increase in work zone crashes, injuries, and fatalities. The impact of the accelerated construction schedule resulted in a 30 percent increase in work zone crashes between 2001 and 2002, and a 23.7 percent increase in injuries, clearly demonstrating a need for a focused, ongoing approach to reducing work zone incidents.

In response, SCDOT implemented an extensive Work Zone Safety program from 2002 through 2005 that included statewide public information and education campaigns, retreats, teleconferences, a statewide tour of the National Work Zone Memorial, worker training, presentations, and an aggressive high-visibility enforcement program.

SCDOT partnered with FHWA, the State Department of Public Safety, local law enforcement agencies, highway contractors, and other governmental organizations using Federal funding to implement a massive information campaign that conveyed a zero tolerance message for speeding in work zones. Extensive training also was provided for highway workers to improve consistency in work zone operations. While the goal was to reduce work zone crashes and fatalities by a minimum of 7 percent, the program far exceeded expectations, with crashes dropping 39.2 percent over one control period. Work zone related injuries decreased by 44.1 percent and fatalities were reduced by 50 percent.

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## NACE Provides Help On Retroreflectivity Standards

The National Association of County Engineers (NACE) launched a program in partnership with 3M to help member counties replace traffic signs to meet new Federal retroreflectivity standards as required by the Federal Highway Administration (FHWA). Under the program counties will be able to apply for one-time grants to help them meet the safety standard. The effort is designed to build awareness of the new Federal minimum reflectivity ruling, provide financial incentives to replace noncomplaint signs, educate NACE members on the compliance requirements, provide training on sign assessment management methods, and share best practices. For more information, visit the NACE web site at: <http://www.countyengineers.org/> or <http://www.minimumreflectivity.org/index.asp>.



*Proper reflectivity, as shown above, enables motorists to see signs at night.*

## ITE Conference Focuses on Safety

The ITE 2008 Technical Conference and Exhibit, “Making a Difference in Transportation Safety,” held in Miami, Florida, March 30-April 2, 2008 highlighted leading practices for moving the numbers in transportation safety. Conference attendees heard from trans-

portation professionals, community leaders, colleagues, and other critical stakeholders on transportation planning, design, operations, human factors issues, and countermeasures to improve transportation safety.

Among the presentations was a session focusing on tools for incorporating safety in the transportation planning process. Speakers at the session included Robert Ritter from the Federal Highway Administration (FHWA), Stephen Read from the Virginia Department of Transportation, Gail Holley from the Florida Department of Transportation, and Thomas Welch from the Iowa Department of Transportation.

Mr. Ritter highlighted the ways strategic highway safety plans can be integrated into the transportation planning process and discussed data issues, modeling tools, data analysis, and case studies on successful practices. He also introduced several new tools for transportation planners, safety engineers, and other safety practitioners available from the Transportation Planning Safety Working Group, including the *Transportation Planners’ Safety Desk Reference*, and state fact sheets that show, among other things, 10-year trends in total fatalities and fatality rates. More information on the ITE Technical Conference and upcoming meetings is available at <http://www.ite.org>.

## The Cost of Crashes Exceeds the Cost of Congestion

AAA recently released a report examining the costs of crashes to society. The study, along with recommendations for improvements, is designed to raise awareness about the importance of transportation investments, and provide policy-makers, departments of transportation, and the public with information on the magnitude of the safety problem. The AAA study compares the costs of crashes to the

costs of congestion by calculating a per person cost for crashes and multiplying by the population figures in the same 85 urban areas used by the Texas Transportation Institute in the biennial *Urban Mobility Report*.

According to AAA, the cost of traffic crashes is more than two and one-half times higher than the cost of congestion – \$164.2 billion for traffic crashes compared to \$67.6 billion for congestion. To read more about the findings, visit <http://www.aaanewsroom.net/Assets/Files/20083591910.CrashesVsCongestionFullReport2.28.08.pdf>.

## Effective Speed Management Practices

The Global Road Safety Partnership (GRSP) released a report on the implementation of speed management measures that have proven effective in reducing the number of deaths and injuries from road crashes. The report, prepared for policy-makers and road safety practitioners, documents the lessons learned from both successful and unsuccessful speed management programs. Included in the report are a series of “how to” modules that explain “the steps needed to design, plan and implement a program, including how to obtain funding, set up a working group, develop an action plan, and, if necessary, introduce appropriate legislation.” Countermeasures involving engineering, enforcement, and education are included as ways to change speed-related behavior. A copy of the full report can be found at <http://www.grsproadsafety.org/themes/default/pdfs/Speed%20management%20manual.pdf>.

## Effective Approaches to Reduce Speeding

Many states are looking for ways to reduce speeding. Two articles in the Transportation Research Record (Volume 2009/2007) examined the effectiveness of two approaches to this problem. One report examined the effectiveness of speed-monitoring displays (SMD) that detect the speed of vehicles and display it on an electronic board to inform drivers of their current speed, and speed cameras to catch violators. The results of the study showed that mean speeds of vehicles were significantly reduced after SMD and camera installation. The study found that the presence of SMDs could alert drivers to the presence of enforcement cameras downstream, resulting in drivers adjusting their speeds to comply with the posted limit.

An article on enforcement programs examined the effectiveness of a city-wide targeted enforcement program that used a heightened level of enforcement and focused on intersection traffic control violations. The program, which included a public awareness component, was conducted for periods ranging from several months to two years. The analysis of the enforcement program revealed that crashes related to red light running were reduced by 6.4 percent during implementation with a benefit-cost ratio of 12:1. The effectiveness was found to be similar to that of an automated speed camera program. A copy of the two reports can be found at: <http://trb.metapress.com/content/m7h1n308427g>.



Following is a listing of upcoming training sessions and workshops being conducted by the National Transit Institute and the National Highway Institute that may be of interest to transportation planners and other safety professionals.

### National Transit Institute

[www.ntionline.com/CourseDates.asp](http://www.ntionline.com/CourseDates.asp)

*State and Metropolitan Transportation Programming*  
5/6-8/2008, Newington, CT

*Public Involvement in Transportation Decision Making*  
5/2-23/2008, Concord, NH

*Introduction to Metropolitan Transportation Planning*  
10/19-22/2008, Denver, CO

### National Highway Institute

[www.nhi.fhwa.dot.gov/home.aspx](http://www.nhi.fhwa.dot.gov/home.aspx)

### Transportation Planning

*Administration of FHWA Planning and Research Grants*  
5/13-14/2008, Jackson, MS  
6/12-13/2008, Austin, TX

*Applying GIS and Spatial Data Technologies to Transportation*  
5/14-15/2008, Columbia, SC

*Introduction to Statewide Planning*  
6/25-26/2008, Honolulu, HI (FREE)

*2008 NEPA and Transportation Decision-Making*  
5/28-30/2008, Richmond, CA

*Transportation and Land Use*  
5/13-15/2008, San Antonio, TX  
6/23-25/2008, Los Angeles, CA

### Highway Safety

*Roadside Safety Design*  
5/6-8/2008, Denver, CO  
6/2-4/2008, Concord, NH

*Design, Construction, and Maintenance of Highway Safety Appurtenances and Features*  
5/21-22/2008, Columbus, OH

*Work Zone Traffic Control for Maintenance Operations*  
5/14-15/2008, Topeka, KS

*Construction Zone Safety Inspection*  
5/13/2008, Columbus, OH

*Advanced Work Zone Management and Design*  
5/6-8/2008, Allentown, PA  
5/13-15/2008, Concord, NH  
6/2-4/2008, Madison, WI

*New Approaches to Highway Safety Analysis*  
5/6-8/2008, Los Angeles, CA  
6/3-5/2008, Oakland, CA

*Low-Cost Safety Improvements Workshop*  
6/16/2008, West Greenwich, RI

*Intersection Safety Workshop*  
6/10/2008, Reno, NV

## Directions in Road Safety

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