Reduced Risks of Drowsy Driving – Tips from Wisconsin LTAP

Feeling sleepy behind the wheel is a serious concern for plow operators and a potential liability for the local governments that employ them, especially during a long-lasting storm event. A tired driver is at greater risk of losing control and causing a crash. Professor John Lee from the Department of Industrial and Systems Engineering in the College of Engineering at the University of Wisconsin–Madison researches driver distraction and notes that performance decreases substantially after someone operates a vehicle for 10 continuous hours. Doing so for 24 hours straight is the equivalent of driving under the influence. Lee says the general rule is that operators need to break at least every two hours to avoid driving drowsy.

Managing fatigue a priority

Driving tired is preventable if highway and street departments make fatigue management a priority. A good starting point is to follow practices found in commercial fleet operations. A Transportation Research Board (TRB) synthesis report on commercial truck and bus safety found three key components in fatigue management programs:

1) Scheduling and dispatching practices that take sleep needs into account.
2) Attention to driver health and wellness that includes medical screening and counseling for sleep disorders.
3) Better awareness of fatigue signals through education and training.

Fatigue management resources developed for the commercial sector provide management practices and specific tools that identify risks of fatigue. A Toolbox for Transit Operator Fatigue developed through TRB's Transit Cooperative Research program targets bus fleet operations but the tips for healthy sleep, a self-test for fatigue and sleep disorders, and other tools to prevent drowsy driving can apply to street and highway operations.

Solutions that fit

Snow season in Wisconsin puts major resource demands on local road and street operations. Plow operators, supervisors, mechanics and other crew members can find themselves stretched thin during major storms or a period of repeated snowfalls. When this happens, the risk of a drowsy operator having an accident or causing a crash increases. Local road officials should develop fatigue management solutions that fit their operation.

Even basic prevention techniques—like training employees to respond appropriately to the signs of drowsiness, promoting healthy sleep habits and scheduling manageable shifts—reduce the risks and liabilities associated with drowsy driving.

—Steve Pudloski, Director, Wisconsin LTAP

For entire article: http://epdfiles.engr.wisc.edu/pdf_web_files/tic/crossroads/xrds_2011_4.pdf

Don't Miss These Upcoming Sessions While at TRB

January 22, 2012 - Sunday: NLTAPA Meetings at FHWA Offices in Arlington, VA
NLTAPA SAFETY WORK GROUP: 3-5pm
January 25, 2012 - Wednesday: RPS 12-041 - Implementation fo the AASHTO HSM - What is Underway?
10:15 am - 12:00pm, Marriott, Maryland B
January 25, 2012 - Wednesday: RPM 12-056 - User Liaison and Technology Facilitation Subcommittee, ANB25(3) -
7:30pm-9:30pm, Marriott, Wilson B & C
Janaury 26, 2012 - Thursday: RPM 12-050 - Highway Safety Performance Committee -
8:00am-12:00pm, Marriott, Virginia A & B

NLTAPA Road Safety Work Group Bulletin:

Highlights and Happenings in Local Road Safety

January 2012

NLTAPA SAFETY WORK GROUP

CO-CHAIRS:
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Bruce Drewes, ID LTAP

MEMBERS:
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David Brand , NACE
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Brian Roberts, NACE
Richard Rolland, NW TTAP
Mark Sandifer, FHWA
Laura Slusher, IN LTAP
Dennis Trusty, N. Plains TTAP
Jeff Zaharewicz, FHWA TPP

The group works to establish the Local Technical Assistance Program (LTAP-TTAP) as a National leader in rural road safety, by providing leadership, advocacy and improved resources to the local transportation community. Members work closely with other safety associations to spearhead rural transportation safety activities nationally.

CENTERS FOCUS ON SAFETY

CRASH SUMMARY PROFILES CREATED FOR INDIANA COUNTIES

Indiana LTAP has created Crash Summary Profiles for every rural county in Indiana in order to assist local agencies in identifying potential areas for improvement. From this data, they were able to calculate statewide crash averages and note distinct regional trends towards certain crash types. This information will help the state and local agencies consider systemic improvements in an effort to increase safety in Indiana. In addition, Indiana LTAP has also completed a Horizontal Curve Study that identified the characteristics of curves most likely to produce fatal and injury crashes in rural Indiana. ***— Laura Slusher, HELPERS Project Manager, Indiana LTAP***

COUNTY ROADWAY SAFETY PLAN PROJECT RECOMMENDS LOW-COST STRATEGIES

About half of Minnesota's roadway fatalities occur on the county road system. To help make these roads safer, MnDOT is developing a safety plan for every county in the state. At the CTS research conference, Howard Preston of CH2M HILL, Inc., gave an update on the three-year project.

Preston said the work is unique in both objective and scope. It makes use of almost $3.5 million in federal safety funds to prepare the safety plans as well as to provide safety expertise to the counties. MnDOT is the only state DOT at this time to undertake the task of preparing safety plans for its local highway system, he noted.

MnDOT is one of only a handful of states to dedicate a portion of its federal Highway Safety Improvement Funds (HSIP) for low-cost projects on the local system, Preston continued. The department is distributing its HSIP funds based on the distribution of fatal crashes, which has resulted in approximately 50 percent of those funds supporting the implementation of low-cost safety improvements on county highways.

Prior to this effort, the safety planning process used across the country was to look at locations with high numbers of crashes (usually urban intersections). Such locations are almost nonexistent, however, on county systems in Greater Minnesota, where severe crashes at any one site are rare. "We had to invent a new process for doing safety planning for local systems in rural areas because that system does not exist anywhere else," Preston said.

Continued on Page 2...

COME JOIN US!

The Safety Work Group holds ***monthly*** conference calls, on the *second* Monday of each month at 1:00 EST

UPCOMING MEETINGS:

•NLTAPA
Sunday, January 22, 2012
All Day
FHWA Offices

•91st Annual TRB
Washington DC
January 22-26, 2012

HAVE AN EXCITING SAFETY RESOURCE TO CONTRIBUTE?

INTERESTED IN GETTING INVOLVED IN THE SAFETY WORKGROUP?

PLEASE CONTACT:

Marie Walsh, Co-Chair
mbwalsh@ltrc.lsu.edu

Bruce Drewes, Co-Chair
bdrewes@lhtac.org

Visit the Safety Work Group *on the web* for meeting info, minutes, Safety updates and more!

www.NLTAPA.org

COUNTY ROADWAY SAFETY PLAN PROJECT RECOMMENDS LOW-COST STRATEGIES (Cont'd from Page 1)

The new approach aggregates data from many rural crash sites into a large pool to determine shared characteristics, and then identifies places that are at risk. "Before, no crashes meant no risk, but now, we conduct a census of the rural system in each county and look at the roadway and traffic characteristics of each segment, curve, and intersection to assess risk," he said.

Horizontal curves on rural roads are a particular safety risk, Preston said, as 52 percent of severe road-departure crashes occur in curves, but curves make up 5 to 10 percent of a county's system by mileage. Each county safety plan includes a risk assessment of curves, primarily looking at curve radius but also factors such as nearby intersections or visual traps.

Rural intersections are another risk area. About 20 percent of intersections are identified as priorities for a county, he said.

The plans also recommend high-priority strategies to address each county's risks. A great resource for strategies, Preston said, is NCHRP Report 500: Guide for Implementation of the AASHTO Strategic Highway Safety Plan, a series of guides to assist state and local agencies in reducing injuries and fatalities in targeted emphasis areas. Each guide includes a brief introduction, a general description of the problem, the strategies/countermeasures to address the problem, and a model implementation process.

The notion of low cost is key, Preston said. The density of severe crashes across rural county highway systems is very low, so treating as many of these crashes as possible requires deploying the selected strategies as widely as possible, and this requires low cost because of the very limited amount of safety funding available. Preston offered the example of roundabouts, which are a very effective safety strategy but cost about $1 million each. For the same $1 million, a county could deploy edge-line rumble strips along 333 miles of its system. So far through 46 counties, the team has suggested one roundabout and around 3,600 miles of edge-line rumbles, he said.

At the project's end, targeted for October 2012, every county will have a complete census of its rural roads, including an assessment of risks and a list of priority safety projects—specific strategies at specific locations.

Based on work to date, 46 county plans have been completed at an average of $2.5 million in safety needs in each county, for a total of approximately $115 million. Only about $15 million, however, is available in the state's highway safety program for counties, Preston said.

—Pam Snopl, MN LTAP managing editor, TECHNOLOGY EXCHANGE - FALL 2011

SAFETY NEWS AND RESOURCES

West Virginia LTAP • ROAD SLEUTH INFORMATION SHEET

The WV LTAP is developing a series of information sheets — called Road Sleuth — on various transportation and public works related topics. The idea for Road Sleuth came about following various conversations WV LTAP staff had with public works directors, street supervisors, and others in transportation related fields. During these conversations, one common theme emerged: public works personnel repeatedly getting the same questions and requests time and again from their elected officials and residents and not having educational information readily available.

ROAD SLEUTH INFORMATION SHEET (Cont'd From Page 2)

In addition to topics being covered in this newsletter, the Road Sleuth series can be downloaded from the WV LTAP website. The sheets were designed using Microsoft Publisher Software and are formatted so municipalities can add their individual contact information if desired, post these on their public work's webpage, distribute printed copies to new city council members, or send out in mailings, etc.

For more tips on how to best use these materials and to access these materials, please go to http://wvltap.wvu.edu. The WV LTAP staff also welcomes your suggestions for additional topics.

—WV LTAP: Country Roads & City Streets, Vol. 26, No. 3, Fall 2011
Kim Carr, Program Coordinator

2011 Activities Kentucky LTAP for Safety

Kentucky LTAP conducts safety training in regularly scheduled workshops like Work Zone Traffic Control Employee Training Qualification Training, Pesticide Training, and through the Roads Scholar and Road Master Training Courses to include Traffic Management, Snow and Ice Removal, and many more. This year brought in additional workshops to include:

- *Road 365: A Safety Workshop for Local Governments*
- *Chainsaw Safety Training at various locations around the state*
- *OSHA 10-Hour Construction*
- *Sign Retroreflectivity and Nighttime Visibility Training*

This year saw the return of the Kentucky Safety Circuit Rider Program. The Program uses crash data to locate high incident sites along roadways and assist communities in finding low cost roadway safety improvements. The Safety Circuit Rider works with local governments to remove fixed objects such as trees, brush, stumps, etc. and to install signage per MUTCD guidelines. As part of the program, the Safety Circuit Rider and Traffic Safety Engineers teach a Low-Cost Safety Improvements for Rural Roads workshop across the state.

KYLTAP also began an equipment loan program for public agencies. We have purchased a ball bank indicator, retroreflectometer, six traffic counters and MRS kits (Calibration Sign Standards Kit and a Comparison Panel Standards Kit). Equipment loan requests began within one month of beginning the program. Each item can be loaned out for three weeks.

—Todd Morrison, P.E. Safety Circuit Rider, KY LTAP

National Roadway Safety Awards 2011 Noteworthy Practices Guide - Honorable Mention Work Zone Safety Education Program – NJ LTAP

Developed, maintained, and led by NJ LTAP, the Work Zone Safety education program provides a multi-level, interactive, and state-certified collective of educational training courses and a major statewide annual conference for state transportation agency officials, law enforcement, highway construction managers, work zone personnel, engineers, and highway contractors to reduce work zone related injuries and fatalities.

Educating an average of 1,000 work zone safety professionals over the course of a year in every corner of the state, it is not a surprise that New Jersey work zone fatalities have decreased despite the increase in highway construction projects. With the inclusion of the NJDOT, NJ State Police, OSHA, and the Turnpike Authority, attendees receive up-to-date, state-approved safety information and protocol mandates in interactive, hands-on courses designed to simulate the working environment.

Courses in the program include the flagship Traffic Control Coordinator (TCC) program and its follow up refresher course; OSHA 10-hour training course; Work Zone Safety Train-the-Trainer for law enforcement; and the Work Zone Safety Awareness training course, which is tailored to multiple audiences, such as law enforcement, public works, or the construction industry. Additionally, NJ LTAP hosts an annual Work Zone Awareness conference during National Work Zone Awareness Week to address current trends in work zone safety to the public works, highway construction, and law enforcement sectors.

Each year, the work zone safety training sessions and annual conference are updated based upon partnership and attendee feedback to provide access and up-to-date educational materials to incoming students. The NJ LTAP has also been recognized through legislative proclamation by the New Jersey Senate to host the official Work Zone Safety Awareness Conference each year. To see all Roadway Safety 2011 Awards: www.roadwaysafetyawards.org

—Janet Leli, Program Director, NJ LTAP