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New approaches to motorcycle safety

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Kansas Teenage Driver Safety Project leads to new GDL adoption



Motor vehicle crashes are the leading cause of death among teenagers in Kansas and throughout the United States. A significant step to address this concern was recently adopted by the Kansas Legislature, as a study by UNC Highway Safety Research Center (HSRC) researchers helped pave the way for the acceptance of Graduated Driver Licensing (GDL) for young drivers in the State.

To begin addressing motor vehicle crashes among teens, the AAA Kansas Traffic Safety Committee spearheaded the Kansas Teenage Driver Safety Project in 2007. As part of the project, AAA Kansas asked HSRC's Center for the Study of Young Drivers (CYSD) to gauge the extent to which parents of young drivers approved of several integral elements of GDL.

"Many had thought these would be unpopular among Kansas' rural residents," said Rob Foss, senior research scientist and director of the CYSD. "But previous research in North Carolina had suggested that was probably a misperception of

parents' priorities."

For the study, households were randomly selected using stratified sampling, to ensure that all regions of the state were appropriately represented. Because crash likelihood and severity vary by "ruralness," the state was divided into four strata to represent both geographic region (western-eastern) and degree of "ruralness" – that is, rural vs. town vs. large city driving environment. Results indicated that both parents and teens approve of the kinds of protective restrictions that characterize GDL systems and that those living in the most rural locations were equally as supportive as those who live in medium size towns and large metropolitan areas.

AAA Kansas shared the results of the CYSD study with the public, media, and legislators as part of their efforts to encourage adoption of GDL in Kansas. In February 2009, a GDL bill was passed in the Kansas Legislature that will go into effect January 1, 2010. CSYD researchers plan to examine the effects of this new licensing system in 2011 and 2012, comparing some of the data obtained from this past round of teenager interviews to similar information to be collected with a group of teens licensed under the new system.

New approaches to motorcycle safety



Fatalities involving motorcyclists in 2008 continued to increase for the eleventh year in a row. At the same time, the National Highway Traffic Safety Administration (NHTSA) is reporting that overall traffic fatalities in 2008 reached their lowest level since 1961, and that the fatality rate per 100 million vehicle miles traveled continues to drop every year. Government and industry are serious about confronting these conflicting trends, and are laying the foundation to improve motorcycle safety with the help of the UNC Highway Safety Research Center (HSRC).

In June 2009, the Motorcycle Safety Foundation (MSF) announced the extension of its contract with HSRC to continue the MSF Discovery Project through November 2011. The landmark research study was launched in 2006 through a cooperative agreement between the MSF and NHTSA to jointly fund the \$1.3 million research effort.

Officially called "The Longitudinal Study to Improve Crash Avoidance Skills," the Discovery Project's objective is to determine the effects of sustained involvement in a rider education and training system on risk management and safe riding habits.

"The Discovery Project is the first motorcycle study to objectively evaluate the benefits of rider training based upon the principles of safety renewal," said MSF Director of Quality Assurance and Research Dr. Sherry Williams. "Extending the study, enrolling more participants, and working with a respected, independent university-based research team will ensure the continuing integrity of the project. The results could very well chart the course of motorcycle rider education for decades, and most importantly, help reduce the number of motorcycle crashes."

The research is being conducted in California, where motorcyclists must take a beginning rider skills course before obtaining an operator's license. Three additional advanced skills modules are also taught at the California Motorcyclist Safety Program rider training facility in Long Beach, CA. The study enrolls motorcyclists taking this additional training.

The Center's team for this project, led by Senior Research Scientist Rob Foss, Ph.D., provides independent evaluation of research that takes a comprehensive, field-based look at the benefits of the riders' ongoing participation in the education and training system, and its subsequent affect on crash avoidance skills and real-world outcomes. "Data collection has been under way for almost a year now and is going smoothly. This extension will enable us to obtain information on more riders and to track their success in avoiding crashes after they have completed the series of classroom and practice range courses," said Dr. Foss. "Both mean that the statistical analyses will be more robust and the results of the study more conclusive."

Assessing pedestrian and bicycle safety improvements in St. Petersburg



New bike lanes and trail crossings really are making a difference for pedestrians and bicyclists in St. Petersburg, Florida. This is the conclusion of a series of evaluations conducted by researchers at the UNC Highway Safety Research Center (HSRC). These evaluations were sponsored by the Florida Department of Transportation to assess new bicycle and pedestrian improvements across the state.

The City of St. Petersburg and its Neighborhood Transportation section have taken a variety of steps to increase bicycle and pedestrian safety in recent years. These steps follow adoption of the St. Petersburg City Trails — Bicycle Pedestrian Master Plan in 2003. Improvements have included the installation of bike lanes, a green-colored bike lane weaving area, and upgrading of many uncontrolled pedestrian crosswalks throughout the city. Before these treatments can be more widely adopted, the effects on safety and driver, pedestrian, and bicyclist behavior need to be assessed.

One HSRC study looked specifically at green-colored pavement and signing that identifies a bicycle-motor vehicle weaving area, in which bicyclists continue straight through an intersection while motorists cross over the bike lane in order to make a right turn. The study found a significant increase in yielding behavior by motor vehicles, as intended by the treatment, leading to the conclusion that the green bike lane weaving area has operational and safety benefits for bicyclists in this particular case. It is recommended that additional study of colored bike lane weaving areas should be conducted in different traffic settings.

Another of the St. Petersburg studies examines the change in bicycle counts and speeds due to the installation of bike lanes. "It is assumed that installation of bicycle facilities will result in an increase in the number of bicyclists," explained William Hunter, senior research scientist at HSRC. "However, it is rare that any before and after counts are performed and reported in the literature."

The study of bicycle lanes focused on before-after analyses of two corridors in St. Petersburg. After bicycle lanes were introduced, the overall study showed an increase in bicyclists of 17 percent, though initial counts were quite low along the two specific corridors. Bicyclist average speeds showed no change. One of the conclusions from the study was that the addition of bicycle lanes alone on a street will not guarantee an immediate increase in bicycle volume. Other factors, including adjacent land use, convenient origins and destinations, and connectivity of a bicycle lane to other bicycle facilities within the street system are just as, or perhaps more critical, in terms of encouraging bicycling.

Deer crashes continue to rise in North Carolina



Motor vehicles crashes involving deer rose to an all-time high in North Carolina in 2008, even as the total number of motor-vehicle crashes and total vehicle miles driven dropped from the previous year.

Crashes reported to police involving deer last year on roadways in the state increased to 19,693, up from 19,277 in 2007. In that same period, total reported crashes fell from 224,307 in 2007 to 214,358 in 2008. Vehicle miles traveled also dropped, by 2 percent. Since 2004 reported deer-related crashes increased 27 percent, while total crashes during the same period decreased by 7 percent.

Of the total reported automobile crashes in North Carolina in 2008, deer were cited as a factor in 9.2 percent, up from 8.6 percent in 2007. Wake County topped the list with 1084 deer-related crashes. Other counties with high numbers of deer crashes in 2008 include Guilford, Rockingham, Duplin, Pitt and Mecklenburg.

While a crash involving a deer can happen at any time, drivers should be particularly careful both in the early morning hours and the early evening hours. Almost 80 percent of deer-related crashes in 2008 occurred between 6 p.m. and 6 a.m.

White-tailed deer can be seen on the move around North Carolina roadways at any time of year. However, 50 percent of all deer-related crashes occurred during the three months of October, November and December. Deer are particularly restless and agitated during these months due to mating season and locating new food resources.

While the figures reflect the total number of deer-related crashes reported to law enforcement agencies, there is anecdotal evidence that many more such crashes occur than are reported.

The complete deer-motor vehicle crash data for all North Carolina counties is available at www.hsrc.unc.edu/safety_info/animal_vehicle/index.cfm.

HSRC News Briefs

Ben W. Murch Elementary School receives 2009 James L. Oberstar Safe Routes to School Award

The National Center for Safe Routes to School (NCSRTS) announced Ben W. Murch Elementary School in Washington, D.C., as recipient of the 2009 James L. Oberstar Safe Routes to School Award, a national award for outstanding achievement in implementing a Safe Routes to School Program. U.S. Rep. James L. Oberstar, chairman of the House Committee on Transportation and Infrastructure, presented the award October 26, 2009 to Principal Dawn Ellis and the school's 17-member student safety patrol. The school was recognized for excellence in building community support and infrastructure for safe walking and bicycling to school.

NCSRTS is housed within the UNC Highway Safety Research Center (HSRC) and funded by the U.S. DOT Federal Highway Administration.

NCSRTS selected Murch Elementary School as this year's recipient based on its exemplary Safe Routes to School program successes, including: reversing school policy that prohibited students from bicycling to school without special permission; building community support for walking and bicycling to school, including neighborhood support for new sidewalk construction; and implementing an effective student Safety Patrol program to enforce safe driving behavior around the school.

The James L. Oberstar Safe Routes to School Award is named for the congressman to honor his dedication to American schoolchildren as the pioneer for the National Safe Routes to School Program. Chairman Oberstar sponsored the



Chairman Oberstar (right) presents the 2009 James L. Oberstar Safe Routes to School Award to Principal Dawn Ellis (left) and the Murch Elementary School's 17-member student Safety Patrol at a celebration on Mon., Oct. 26. Congresswoman Eleanor Holmes Norton (middle) also joined the celebration in Washington, D.C.

Safe Routes to School legislation that strives to create

Read more at

http://www.saferoutesinfo.org/news_room/2009-10-26_Oberstar%20Award.cfm.

Delegation from Turkmenistan visits HSRC

A delegation of emergency medical professionals from the Republic of Turkmenistan visited HSRC on October 14, 2009. The delegation shared road safety issues from their country, and heard from HSRC researchers about U.S. conditions and approaches to various aspects of road safety, including infrastructure design and operations, occupant protection programs, licensing of young drivers, and programs to protect pedestrians.

The visit was sponsored by the Community Connections program of the International Affairs Council, run in conjunction with World Learning and funded by USAID. The program aims to share U.S. expertise with business entrepreneurs, government officials, and professionals from Russia and the former Soviet states.



Emergency medical professionals from Turkmenistan meeting with the HSRC team

Linking sleepiness to transit

On October 9, 2009 Dr. Barbara Phillips of the University of Kentucky HealthCare Good Samaritan Sleep Center led a public seminar entitled "Sleepiness: The Case for Public Transportation to Promote Public Health." The seminar was cosponsored by HSRC and the Carolina Transportation Program.

Dr. Phillips made the case for developing and expanding the U.S. infrastructure of public transportation to help reduce drowsy driving-related crashes and fatalities. The research she presented looks at causes of sleepiness, including sleep loss, shift work, and sleep disorders. She finds that the fatigue that results from these conditions is a significant factor for moving vehicle crash. Dr. Phillips suggests that expanding transit options is an approach that planners can take to mitigate the increased risk of crash.

Dr. Phillips is a member of the Federal Motor Carriers Safety Administration's Medical Review Board.

'Yield to Heels' day emphasizes pedestrian safety on UNC campus

The University of North Carolina at Chapel Hill celebrated Yield to Heels Day on Wednesday, September 30. Coordinated by the UNC Department of Public Safety (DPS) and HSRC, Yield to Heels aims to clear up myths about traffic safety for both pedestrians and drivers.

Yield to Heels volunteers along with DPS officers promoted the message of pedestrian safety by distributing nearly 3000 educational fliers, while rewarding pedestrians obeying crosswalk etiquette with retro-reflective items and t-shirts.

Volunteers for Yield to Heels were provided by the Alpha Pi Omega service fraternity, Carolina Center for Public Service, and students who had previously enrolled in a Bicycle and Pedestrian planning course offered by the Department of City and Regional Planning.

For the first time in Yield to Heels' nine-year history, UNC Hospitals Police participated in the event, handing out an additional 3000 educational fliers at crosswalks in front of the UNC Memorial, Women's, and Children's Hospitals in an effort to spread the message of pedestrian awareness to another busy area on campus.

"Yield to Heels is a vital component of the continuing efforts to create a safe walking environment on and around the UNC campus," said David Harkey, HSRC director. "The one-day event is a great opportunity to remind pedestrians of the need to use caution at every street crossing and motorists of the need to travel slowly and be prepared for crossing pedestrians."

"This collaborative effort reflects our intention of instilling in both drivers and pedestrians a focus on safety," said Chief Jeff McCracken, director of UNC's Department of Public Safety. "At this time of year, the campus community stages many large-scale special events, and with waning daylight, there is an acute need to re-emphasize a universal understanding of pedestrian safety practices."

More information on pedestrian safety is available at www.hsrc.unc.edu or www.dps.unc.edu.

