



THE UNIVERSITY OF NORTH CAROLINA  
HIGHWAY SAFETY RESEARCH CENTER

# DIRECTIONS

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## What factors contribute to large truck crashes on NC roads?

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## What factors contribute to large truck crashes on NC roads?

Nationwide, large trucks are involved in 4 percent of police-reported crashes but represent 8 percent of all fatal crashes. In a crash involving a large truck, it is most often the occupant of the passenger vehicle who is killed, although pedestrians, motorcyclists and truck drivers themselves are also victims.

In a new study funded by the Insurance Institute for Highway Safety, HSRC researchers seek to identify and quantify risk factors for involvement in a large truck crash. The state of North Carolina will serve as the test site for the study.

“With the amount of large truck industry in the state, North Carolina was an ideal location for this pilot study,” said HSRC researcher Daniel Carter, who will lead the study efforts. “Working along with the Motor Carrier Enforcement Section of the NC State Highway Patrol, we hope to offer some insight on why we see the types of truck crashes on North Carolina roads that we do.”

Researchers will conduct a thorough data analysis to develop a detailed profile of large truck crashes in the state. The analysis will examine driver, vehicle, roadway, and environmental variables seen in heavy truck crashes as well as look at enforcement and inspection data. The study will also seek to identify factors that are most strongly associated with specific types of heavy truck crashes, such as nighttime crashes, those involving serious injury or those that occur on two-lane rural roads.

Drawing from the data analysis, HSRC will develop a protocol for gathering information from a sample of large trucks involved in crashes, as well as a control sample of non-crash-involved trucks. The protocol will initially be piloted in a few NC counties, with plans to expand to a larger, statewide data collection effort during the second year of the project.

Results from the data analysis are expected to be available in the summer 2007. Ultimately, the researchers plan to collect and analyze detailed data collected prospectively from 300 to 400 heavy truck crashes.



## Evaluating the effects of NC's teen driver cell phone restriction

The Center for the Study of Young Drivers (CSYD) is examining the effects of a new restriction in North Carolina that prohibits cell phone use by drivers under the age of 18. The new restriction, which was passed by the NC Legislature earlier this year and is part of the North Carolina graduated driver licensing system, takes effect on December 1, 2006.

Funded by the Insurance Institute for Highway Safety, the project will involve the observation of thousands of teen drivers both before and after the new restriction takes effect to measure the extent to which the restriction influences teens' use of cell phones while driving. In addition, the researchers are interviewing several hundred teens and their parents to examine awareness of the new restriction, how strongly parents and teens support or oppose it, and the degree to which parents enforce it for their teens. Results from the study are expected by late Spring 2007.

Center researchers have also studied the effects of another type of distraction for teen drivers – passengers. Research findings showed that a young driver with two or more passengers in the vehicle has more than twice the risk of being involved in a serious crash, compared with having no passengers at all. This finding contributed to a change of the North Carolina GDL system to include a limit on the number of young passengers allowed to ride with an inexperienced teen driver. Analyses indicate that multiple passenger crashes have declined by 32% among 16 year-old drivers and by 15% among 17 year-old drivers since the passenger restriction was enacted.

The UNC Highway Safety Research Center established the CSYD in 2006 to study and improve the safety of young drivers. The new Center's focus is on developing a fundamental understanding of the multitude of factors that contribute to the high crash rate among young drivers. For more information on the Center and its research, please visit [http://www.hsrc.unc.edu/safety\\_info/young\\_drivers/csyd.cfm](http://www.hsrc.unc.edu/safety_info/young_drivers/csyd.cfm).

## Web-based resources developed for Safe Routes to School

The National Center for Safe Routes to School, within the UNC Highway Safety Research Center, has developed several new Web-based technical assistance tools to help communities with their Safe Routes to School programs. With the launch of the Center's [new Web site](#), SRTS program leaders now have access to a comprehensive Online reference manual, an Online library of SRTS materials and a searchable "Question and Answer" database.

The [Safe Routes to School Guide](#) is a comprehensive online reference manual designed to support communities in developing Safe Routes to School (SRTS) programs. Readers of the SRTS Guide will access Safe Routes to School information complete with references and resources on the following topics:

- Introduction to Safe Routes to School
- Steps to Creating a Safe Routes to School Program
- Engineering, Enforcement, Encouragement and Education
- Student Drop off and Pick up
- Case Studies
- Evaluation (to be completed Winter 2006)

The SRTS Guide also includes two additional pullout resource guides titled *Adult School Crossing Guard Guidelines* and *The Walking School Bus: Combining Safety, Fun and the Walk to School*.

The Center has also launched an [Online Library](#), a centralized, Web-based collection of Safe Routes to School-related materials and documents compiled by practitioners and program leaders from across the United States. Users of the library can search through the Web-based library to find helpful resources for your Safe Routes to School program. Program leaders and participants can also upload their own Safe Routes to School materials into the library to assist others in the development and implementation of programs.

The NCSRTS Web site also includes an ["Ask a Question"](#) section that provides users a series of technical questions and answers relating to Safe Routes to School. Users can either search through the questions by using a keyword or search by category. If users do not find their answer within the database, there is also a mechanism for them to submit a question to NCSRTS.

In addition to these interactive tools, the site also includes a resources section that includes evaluation forms, marketing materials and other program resources. The Center also operates a comprehensive News Room that includes program news releases and recent news articles pertaining to Safe Routes to School.



The saferoutesinfo.org home page.



The home page of the Safe Routes to School Guide.

## HSRC News Briefs

### Symposium Video Now Available

Video footage is now available of the UNC Highway Safety Research Center Symposium titled *The Evolution of Highway Safety: How Research Can Save Lives on Our Roads*. The event was held in celebration of the Center's 40th anniversary.

Symposium speakers reviewed the accomplishments that have led to improved practices, policies and legislation and discussed the future types of research that will be required to reduce the toll on the nation's highways. Speakers included Dr. Forrest Council, former HSRC director and senior researcher of the Center for over 30 years; Dr. Bruce Simons-Morton, Chief of the Prevention Research Branch in the Division of Epidemiology, Statistics, and Prevention Research at the National Institute of Child Health and Human Development; and Dr. Ezra Hauer, world renowned engineer and Professor Emeritus in the Department of Civil Engineering at the University of Toronto.

To watch the video, please visit [http://www.hsrc.unc.edu/news\\_room/events\\_40th-anniversary\\_video.cfm](http://www.hsrc.unc.edu/news_room/events_40th-anniversary_video.cfm). For more information on HSRC's 40th anniversary, please visit <http://www.hsrc.unc.edu/anniversary>.

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### Senior pedestrian program participates in Active Aging Week

Seniors came from miles around to show that they are still young at heart and not afraid to try new things during Active Aging Week. During the week of September 25, 2006, Walk Wise, Drive Smart took part in the festivities that included seminars on nutrition as well as tap and ballroom dancing classes.

The event was hosted by the Henderson County Council on Aging, with support from Partnership for Health, many other community organizations. Active Aging Week was initiated by the International Council on Active Aging to promote the benefits of a healthy active lifestyle. The goal was to introduce older adults to physical activity and exercise options through demonstrations, free classes, and seminars, as well as assessments to help individuals determine what programs would best meet their needs.

The *Walk Wise, Drive Smart* program was spearheaded by the UNC Highway Safety Research Center as part of the Henderson County Livable Senior Friendly Communities Initiative. *Walk Wise, Drive Smart* is a neighborhood-based, senior-pedestrian-friendly initiative within Hendersonville, NC, and the surrounding areas. Please visit [www.walk-wise.org](http://www.walk-wise.org) for further information and photos from Active Aging Week.

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### Recently Published Articles

**Traffic Safety Information Systems International Scan: Strategy Implementation White Paper.** F. Council and D. Harkey. Federal Highway Administration, September 2006. Report No. FHWA-HRT-06-099.  
Full text available at <http://www.tfhrc.gov/safety/pubs/06099/index.htm>

**Encouraging Compliance with Graduated Driver Licensing Restrictions.** A. H. Goodwin, J.K. Wells, R.D. Foss and A.F. Williams. *Journal of Safety Research*. Vol. 37, No. 4, 2006. p. 343-351.  
Full text available at <http://dx.doi.org/10.1016/j.jsr.2006.05.004>

**Parental Supervision of Teenage Drivers in a Graduated Licensing System.** A.H. Goodwin, M.W. Waller, R.D. Foss, and L.H. Margolis. *Traffic Injury Prevention*. Vol. 7, No. 3, 2006. p. 224-231.  
Abstract available at <http://journalsonline.tandf.co.uk/openurl.asp?genre=article&issn=1538-9588&volume=7&issue=3&spage=224>

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