



summer  
**05**



### **PBIC develops course to foster safer environments surrounding schools**

Communities across the United States are taking the initiative to make walking and biking to school safer and more appealing. To better equip communities with the skills necessary to launch these programs, the Pedestrian and Bicycle Information Center (PBIC), has developed the Safe Routes to School (SR2S) National Course.

### **HSRC News Briefs**

**HSRC researchers mentor UNC planning students**

**Robertson shares safety research with school transportation officials**

**NC ECHS chat with teens on distracted driving**

---

## **Traffic Safety Information Systems in Europe and Australia**

---

## **Acclaimed safety researcher reflects on pioneers in injury field**

Directions is a free, online publication of the University of North Carolina Highway Safety Research Center. No permission is needed to reprint from articles, but attribution is requested. To receive Directions, please [subscribe to the HSRC contact list](#).

Managing Editor: [Katy Jones](#)  
Contributing Writer: [Lauren Hightower](#)  
Graphic Designer: Zoe Gillenwater

The University of North Carolina Highway Safety Research Center  
730 Martin Luther King Jr. Blvd, Suite 300 | Campus Box 3430 | Chapel Hill, NC 27599-3430  
Phone: 919.962.2203 | Fax: 919.962.8710  
<http://www.hsrc.unc.edu>

## PBIC develops course to foster safer environments surrounding schools

Communities across the United States are taking the initiative to make walking and biking to school safer and more appealing. To better equip communities with the skills necessary to launch these programs, the Pedestrian and Bicycle Information Center (PBIC), has developed the Safe Routes to School (SR2S) National Course.



SR2S Course participants observe and document the drop-off area as school let out at Estes Hills Elementary School in Chapel Hill, NC. Participants then brainstormed and presented recommended improvements to the school's principal.

With funding from the Federal Highway Administration, the National Highway Traffic Safety Administration, the Centers for Disease Control and Prevention and the Environmental Protection Agency, the PBIC developed the course with a clear intent to address relevant health, transportation and safety issues for community stakeholders – from city planners to parents – interested in improving walking and bicycling conditions for children.

### Developing the content

The Center's SR2S course development team was committed to providing information and opportunities for hands-on learning and discussion to help communities create sound programs to facilitate walking and biking, based on local conditions, best practices and responsible use of resources.

"In our work at the Center, we recognized that communities need to be given the information and tools to develop Safe Routes to School programs that have safety at their core," said Charlie Zegeer, director of the Pedestrian and Bicycle Information Center. "Where it is safe, we want to get children walking and bicycling; where it is not, we want to make it safe." In developing the course, the team stressed the importance of conveying overarching concepts with consideration for the specific needs of the community where the course was being implemented.

Because safe routes to school issues involve many disciplines, the course was designed to bring together individuals with different interests, including planning, engineering, education, law enforcement and public health as well as parents and others that care about kids

walking and biking to school, and give them a shared knowledge base.

Once the initial course was developed, the PBIC pilot tested the course in 3 sites in Maryland and Virginia during September 2004. The team then made changes to the course based on feedback gained through written course evaluations, informal discussions with participants, and funder review.

### Training the trainers

In order to make the course available and affordable to communities throughout the US, the PBIC trained 50 individuals from across the country. These individuals brought strong backgrounds in engineering, planning, education and public health, with experience in implementing SR2S programs as well as extensive presentation and training skills.

Two instructor training sessions were held – one in Tucson, AZ and one in Chapel Hill, NC. During each five-day session, trainees observed course developers teaching the course and learned specific information about the rationale and methods for facilitating each course module. In addition, they then demonstrated their course delivery skills by teaching the course in local communities.

### The course

Highlights of the course include a walking audit of a local school campus and surrounding area; strategies for incorporating encouragement, engineering, education and enforcement into walking improvements; as well as discussions on creating short and long-term action items for stakeholders. By the end of the day, participants have created a list of action steps and have individually made commitments to the role each will play as the program moves forward in their community.



Delivery of the course began through two mechanisms. 1. Instructor training participants have been teaching the course in their respective regions. 2. The PBIC is coordinating limited subsidized offerings of the course. Among the places receiving the course this spring are Richmond, VA, Chicago, IL, Glendale, AZ and Rochester, NY.



At the Safe Routes to School National Course in Tucson, small groups of participants brainstorm and present their ideas for walking and bicycling improvements.

---

## Next Steps

The PBIC is now working to promote the delivery of the course. Requests for fall courses are now being accepted. For more information, please visit the PBIC's web site at <http://www.pedbikeinfo.org/sr2s>.

## Traffic Safety Information Systems in Europe and Australia

Safety data is a key to making sound decisions on the design and operation of roadways, but recent assessments show that the quality of many states' crash databases is eroding due to resource reductions. Highway Safety Research Center Deputy Director David Harkey participated in a U.S. delegation that traveled abroad to investigate this very issue.

The Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO) National Cooperative Highway Research Program cosponsored an 11-member panel that conducted a scanning study of how agencies in the Netherlands, Germany and Australia develop and use traffic safety information systems.

The team conducted meetings with representatives of government agencies, academia and private organizations to discuss:

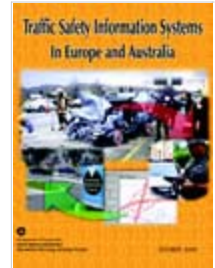
- General issues of policy, systems and linkages
- Crash data collection and accessibility of routine and special traffic crash data
- Roadway data collection and the accessibility of data
- Additional traffic safety issues concerning driver information systems, enforcement, medical data and adjudication

During the trip, the scanning team found that, similar to the U.S., the number of fatalities has dropped significantly since 1980, but the rate has remained essentially constant in recent years. The countries visited have also experienced a drop in crash documentation by law enforcement agencies, but they are developing innovative methods for estimation, linkage and integration to limit the amount of data collection required.

The scanning team's recommendations for U.S. use include advancing safety themes in the areas of strategy, efficiency and utility to develop a more comprehensive approach to improving information systems. The team also recommends conducting a similar scan in the U.S. to determine best practices for collecting and sharing safety data, simplifying data collection by increasing automation and evaluating new technologies to improve data collection and management.

FHWA and AASHTO selected the scanning team members to represent the diversity of knowledge required to evaluate traffic safety information systems. In addition to HSRC, the panel represented the American Association of Motor Vehicle Administrators, National Association of County Engineers, International Association of Chiefs of Police, the National Highway Traffic Safety Administration, FHWA and AASHTO.

Harkey is currently working in conjunction with HSRC Senior Research Scientist Forrest Council to develop a white paper on the implementation strategies recommended by the scanning team and required to improve safety information systems in this country. The paper is expected to be released in the fall of 2005.



[Download the full report.](#)

## Acclaimed safety researcher reflects on pioneers in injury field

Dr. Susan P. Baker, the founding director of the Johns Hopkins Center for Injury Research and Policy, reflected on leaders who have paved the way in safety research at the 2005 Patricia F. Waller lecture.

Just a few of the leading injury researchers covered in the lecture included:

**Colonel (Dr.) John Stapp:**

Stapp became known as the "fastest human on earth" by strapping himself to a rocket sled in order to study human tolerance to deceleration and protection from crash forces

**John Birrell:**

As an Australian police surgeon, Birrell fought for and successfully adopted the use of alcohol testing of drivers and seat belt laws.

**William Haddon:**

The first administrator of the National Highway Traffic Safety Administration and founder of the Insurance Institute for Highway Safety, Haddon developed the Haddon Matrix to itemize potential countermeasures for traffic safety issues.

The UNC Injury Prevention Research Center, the UNC Highway Safety Research Center and the department of psychology sponsor the 2005 Patricia F. Waller Lecture.

Baker is an epidemiologist specializing in injury prevention with a wide variety of focus areas, including motor vehicle occupant and pedestrian deaths among children and adults, carbon monoxide poisoning, childhood asphyxiation, falls among the elderly and injury severity scoring. She is well-known for developing the widely used Injury Severity Score and for writing the "Injury Fact Book," produced by the U.S. Centers for Disease Control and Prevention's National Center for Injury Prevention and Control.

Baker's experience as a licensed pilot has expanded her work to include analyses of crashes in the Colorado Rockies, and research on commuter aircraft crashes and on crashes of instructional flights.

She is an advocate of policy changes that will prevent injuries. Much of her teaching and research is designed to influence legislators, administrators, the media and others whose decisions can determine the likelihood of injury for thousands of people. Baker holds joint appointments at the Johns Hopkins University School of Medicine, in the departments of pediatrics and emergency medicine.

Dr. Patricia Fossum Waller, who died in 2003, received her doctorate in psychology from UNC. She worked for nearly two decades as a researcher at the UNC Highway Safety Research Center, where she developed the concept for graduated licensing that would become adopted nationwide.

She launched the Injury Prevention Research Center with a vision merging her background in traffic safety with public health perspectives on injury control. The multidisciplinary federally funded center, founded in 1987, brings together faculty experts from numerous schools and departments at UNC.

Waller later was director of the University of Michigan Transportation Research Institution and professor of public health policy and administration. She retired to Chapel Hill in 1999.



Susan P. Baker,  
MPH, Sc.D.,  
Associate Chair  
and Professor,  
Department of  
Health and Policy  
Management,  
Johns Hopkins  
Bloomberg School  
of Public Health



## HSRC News Briefs

### HSRC researchers mentor UNC planning students

University of North Carolina at Chapel Hill graduate students from the Department of City and Regional Planning received guidance and expertise from several HSRC researchers during the Fall 2005 semester. The Center took on the pedestrian planning class, which included topics such as conforming to Americans with Disabilities Act guidelines and engineering improvements.

---

### Robertson shares safety research with school transportation officials

Dr. Doug Robertson, HSRC's director, served as the luncheon speaker for the 2005 North Carolina School Bus Safety Conference.

Speaking to a group of transportation directors, assistant superintendents and others responsible for student safety, Robertson presented research from *The Relative Risks of School Travel: A National Perspective and Guidance for Local Community Assessment*.

"Children are at far more risk traveling to and from school in private passenger vehicles — especially if a teen-age driver is involved — than in school buses," said Robertson.



According to the study, an average of 800 children died and 152,000 children were injured yearly during school travel between 1991 and 1999. Passenger vehicle crashes were responsible for 75 percent of those deaths and 84 percent of the injuries, and bicycle and pedestrian crashes represented 22 percent of deaths and 11 percent of injuries. School bus travel was the safest form of travel studied, with crashes involving school buses accounting for only 2 percent of deaths and 4 percent of injuries.

The most risky form of school travel is in cars driven by teenagers. While cars with teen drivers accounted for only 14 percent of student school trips, teens were at the wheel when over half of the injuries and fatalities occurred. Fourteen and fifteen year-olds were

most likely to be hurt or killed as passengers in cars operated by a teenage driver.

The report was produced by a committee of school transportation experts convened by the National Academies' Transportation Research Board and was sponsored by the National Highway Traffic Safety Administration. Robertson served as chair of this committee.

---

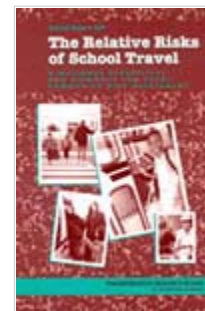
### NC ECHS chat with teens on distracted driving

It is estimated that between 1.5 million and 3 million crashes occur annually as a result of distracted drivers, and National Highway Traffic Safety Administration data shows that drivers aged 16 to 20 are four times as likely to be involved in a distraction related crash.

To obtain a better understanding of the North Carolina teen's perspective on distracted driving, the North Carolina Executive Committee for Highway Safety (ECHS) will conduct a series of discussions with teens from across the state. As a part of the Keeping Drivers Alert working group, these discussions will serve as a springboard for an integrated outreach campaign to reduce fatalities and injuries caused by distracted driving. HSRC Director Doug Robertson, Associate Director for Social and Behavior Research Jane Stutts and Public Relations Manager Katy Jones serve on this working group.

The ECHS "strives to identify, prioritize, promote and support all emphasis areas in the American Association of State Highway and Transportation Officials (AASHTO) Strategic Highway Safety Plan as well as emphasis areas not included in the AASHTO Plan for the coordinated North Carolina highway safety effort to save lives and reduce injuries."

---



[Download the full report.](#)