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Child Passenger Safety Week 2000 Targets Booster Seat-Size Kids

February 14, 2000. Washington, DC.

U.S. Transportation Secretary Rodney Slater and NHTSA Acting Administrator Rosalyn Millman launched a campaign to encourage the use of booster seats for children who have outgrown child safety seats but aren't big enough for an adult lap/shoulder belt. The message is: "Don't Skip a Step: Boost 'em Before You Buckle 'em."

Acting Administrator Millman, in opening the news conference said, "We're not here today to rest on our accomplishments, but to bring attention to a critical problem. Too many larger children are suffering serious injuries and even fatalities because they are not properly restrained."

The campaign targets older children, 40-80 pounds and about 4-8 years old, who need a "booster" seat for adequate protection in the event of a crash.

To illustrate, five "stair step" children representing five different levels of development between the age and range of "booster" seat-size children, trooped up to the stage at the request of Secretary Slater. Lori Miller, TSP, demonstrated on one of the children, Grace, how an adult lap/shoulder belt cuts across the neck and abdomen; an obviously



Secretary Slater, Lori Miller and Grace show how poorly an adult lap/shoulder belt fits a booster size seat child.

poor fit. She then buckled Grace into a booster seat, and declared her, "good to go."

Joining Secretary Slater and Acting Administrator Millman at the news conference was Dr. Flora Koplín Winston. Dr. Winston, a

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NHTSA Acting Administrator Rosalyn Millman opens the news conference urging parents and caregivers to "boost 'em before you buckle 'em."

"Wonderful News for the Children of America"

January 18, 2000. Washington, DC.

General Motors and the National SAFE KIDS Campaign announced that they are taking child passenger safety on the road with a new resource for families – Chevy Venture Mobile Car Seat Check Up minivans available in all 50 states and the District of Columbia starting the week of February 13, Child Passenger Safety Week. The checkpoints will be available for owners of all makes and models of vehicles.

On the grounds of the Washington Monument in Washington DC, National



Transportation Safety Board Chairman Jim Hall said, "This is wonderful news for the children of America."

The Venture minivans will contain all the equipment necessary for SAFE KIDS Coalitions to host Car Seat Check Ups at locations such as GM dealerships, day care centers and shopping malls throughout the country.

Despite public awareness campaigns focused on properly restraining children in motor vehicles, and thousands of certified child passenger safety techni-

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Child Passenger Safety Week 2000 Targets Booster Seat-Size Kids

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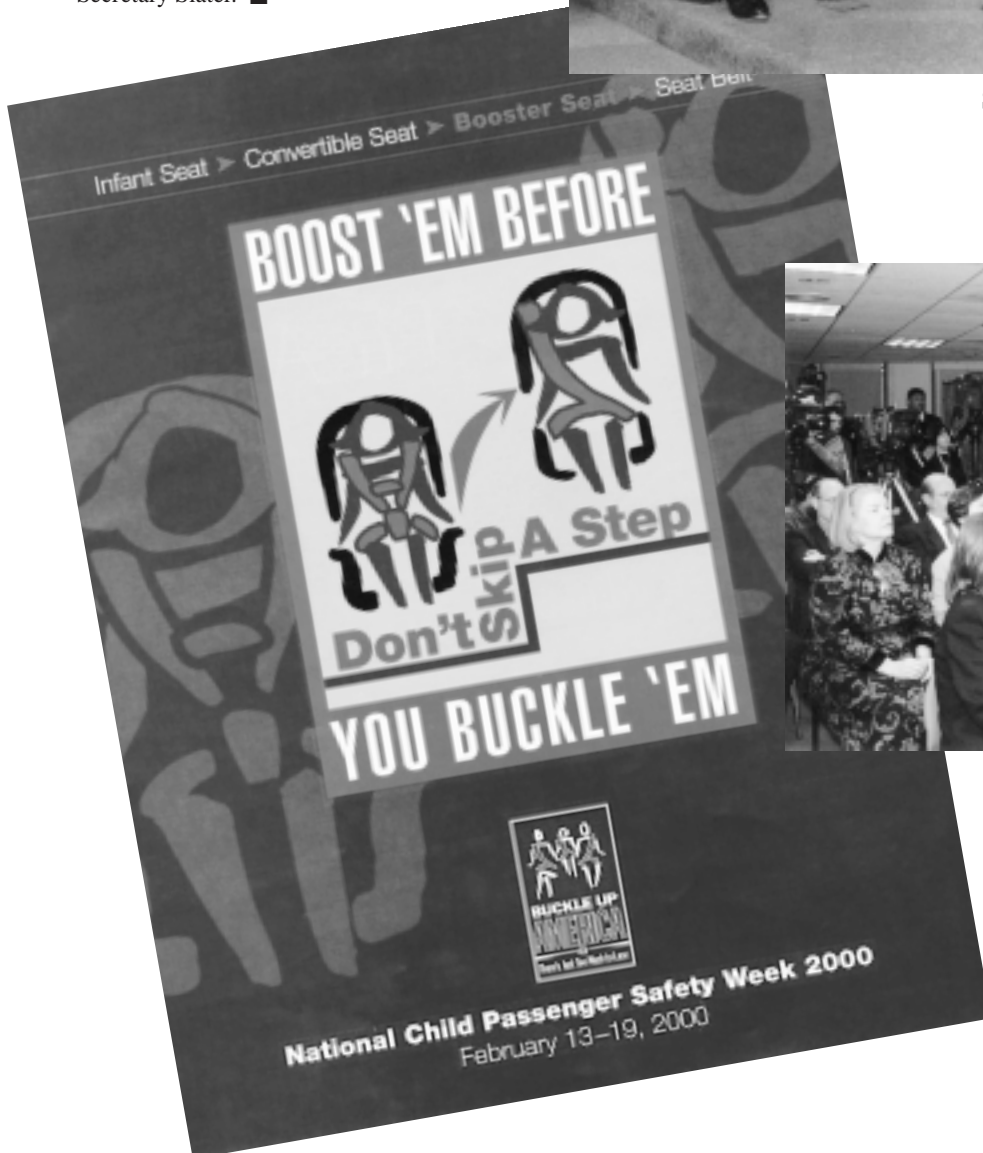
primary care pediatrician, biomechanical engineer and clinical researcher, offered first hand experience on the importance of belt positioning booster seats for older children and provided the cornerstone of the day's message: that many parents and caregivers, even the most safety conscious, just don't understand that as their children grow, child safety restraints must be modified to assure those restraints fit properly. All too often, it's a child who is injured or dies in a crash because they are in an adult seat belt too soon.

Secretary Slater also announced the release of \$7.5 million in state grants to implement child passenger protection programs designed to prevent motor vehicle crash deaths and injuries to children.

"What better day to focus on this issue than Valentine's Day— a day we traditionally show our loved ones how much we care," said Secretary Slater. ■



Secretary Slater with the "stair step" children.



The news conference attracted major news media.

New Record Set in 1999

A new record was set in 1999 when the Office of Defects Investigation received more than 50,000 Vehicle Owner Questionnaires (VOQs) from consumers who reported safety defects that they experienced with their vehicles. The VOQs are vital to ODI because the data provided is used to determine which vehicles should be recalled and repaired by the manufacturer at no cost to the consumer. In all, 52,539 VOQ's were received last year; more than double the number received in 1998 or any previous year. The number of vehicles recalled also was a new record in 1999, totaling 19,776,463.

In the last two years, ODI has implemented a dynamic nationwide outreach program to increase public awareness of the DOT Auto Safety Hotline, its slogan, and telephone number (1-888-DASH-2-DOT). As part of its outreach efforts, ODI has displayed more than 2400 billboards in 43 states. Large dioramas are being displayed at 217 airports in the U.S. and Canada and outreach programs have been set up at more than 25,000 locations in 50 states and territories. In 1999, an article promoting the benefits of calling the Hotline was printed in more than 2,000 daily and weekly newspapers throughout the country. Hundreds of associations, schools, corporations, and other organizations also have printed articles about the Hotline in their newsletters.

The Hotline Web site www.nhtsa.dot.gov/hotline also has become an important aspect of the Hotline outreach program. The site attracts more than 1300 visitors a day who can file VOQs online. Schools, corporations, and other

organizations have set up outreach programs online and receive literature for display and distribution. ODI has helped to ensure the success of this site by obtaining thousands of links to the site. Every outreach partner is asked to link their site to the Hotline and to place an article in their newsletter. Most of the state DOTs have links to the Hotline, along with hundreds of associations, state police, DMVs, schools, nonprofit organizations, and many others. Of the 52,539 VOQs filed in 1999, more than 20,000 were filed online and 18,500 reported directly to the Hotline call center by telephone. Many consumers prefer

to send in a hard copy VOQ or letter, and ODI received 14,000 of these during the year.

ODI is continuing its outreach effort in 2000 and expects to increase traffic to the Hotline Web site and new outreach partners in all 50 states. Motorists will see two thousand new billboards this year promoting the Hotline, and it will be difficult to visit many airports without seeing large backlit Hotline posters. ODI plans to work closely with large corporations to facilitate the distribution of safety literature and Hotline information in 2000 and to continue to build on the large national network that it has created. ■



Pictured from left to right: Kim Jackson, Hotline Team Leader; Ken Weinstein, AA, Safety Assurance; Kathy DeMeter, Director, ODI; Gene Luke, Program Analyst, ODI; Ted Pasek, Team Leader; Catherine Rowell, Hotline Supervisor; Monique Nathan, Hotline Customer Service; Lorena Villa, Hotline Customer Service.

“Wonderful News for the Children of America”

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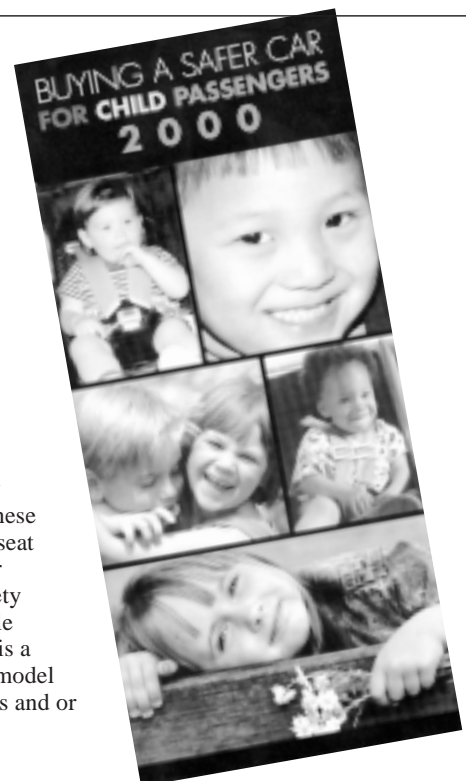
cians nationwide, about 30 percent of children still ride unrestrained, and 85 percent of car seats continue to be used incorrectly.

Secretary Rodney Slater commended the SAFE KIDS Coalition and GM. “I am pleased to see this innovative approach and help from the auto industry, and I applaud all our partners for their work in improving transportation safety, especially the child passenger technicians, volunteers and law enforcement officers throughout the country who work every day to ensure that children are buckled up.” he said.

General Motors is the SAFE KIDS BUCKLE UP program sponsor, investing more than \$18 million since 1996 to promote child passenger safety. ■

Buying a Safer Car for Child Passengers 2000

In conjunction with child Passenger Safety Week (February 13-19), NHTSA released the model year 2000 version of the Buying a Safer Car for Child Passengers brochure. It provides information on safety features to consider when buying a vehicle, including the new Federal regulation requiring upper and lower tether anchorages for child safety seats. Consumers can find out which vehicles have this attachment system, known as LATCH (Lower Anchors and Tethers for Children), which will greatly simplify child seat installation. Child seats will attach to these anchorages instead of being held by the vehicles seat belts. The brochure also lists which vehicles offer manual air bag on/off switches, built-in child safety seats, rear center lap/shoulder belts, and adjustable upper belts (rear seats). Included in the brochure is a section on trunk entrapment prevention and lists model year 2000 vehicles that offer trunk escape releases and retrofit kits. ■



Innovation and Collaboration: Leading Worldwide Efforts in Biomechanics Research

by Cathy McCullough and Emily Sun,
Research and Development

Transportation fatalities and injuries are a continuing public health problem in the United States, costing society more than \$140 billion annually. The large numbers of highway crash fatalities and injuries, along with those occurring in airplanes, trains, and buses, erode public confidence in our transportation system. Improvements in injury control are necessary in all modes of transportation. To a large extent, progress in injury control is limited by existing knowledge of biomechanics.

Impact injury biomechanics is the study of the action of forces and motions on the human body and its consequent injury response. It is the basis for understanding crash injury mechanisms and is fundamental to the development of dummies and computer models that permit the design of safer vehicles. The mission of the National Transportation Biomechanics Research Center (NTBRC) is to prevent transportation related deaths and injuries through research and education in transportation injury biomechanics. This effort is focused into three main areas of research and evaluation, namely the Crash Injury Research and Engineering Network (CIREN); impact injury research; and crash test dummy development and evaluation.

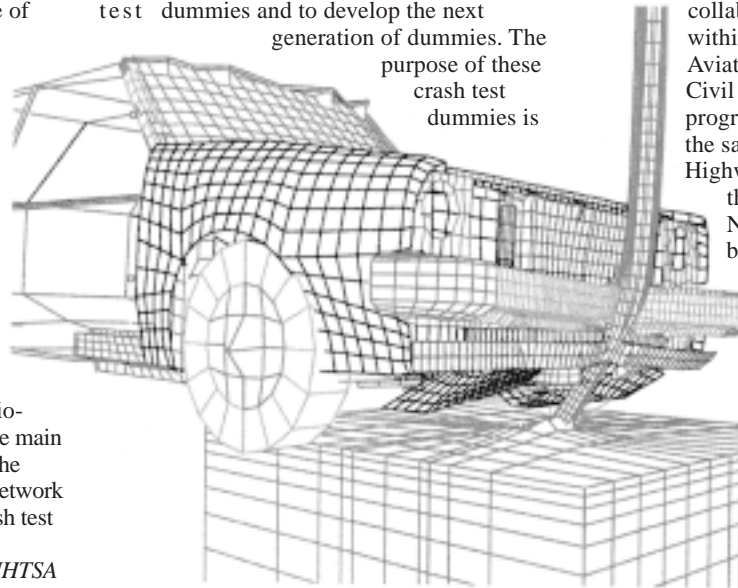
As described in a previous issue of *NHTSA Now*, CIREN is a geographically diverse, multi-disciplinary research team that provides the agency with valuable insights into the dynamics of automotive crashes, the resulting medical injuries, the costs and other immediate and long-term consequences. The findings from the trauma centers allow the rapid identification of emerging injury patterns in real world crashes. As a result, the NTBRC is able to use the in-depth medical and crash information from CIREN cases to proactively direct impact injury research toward understanding mechanisms of injury associated with new vehicle designs and restraint systems.

The second area of research directed by the NTBRC is impact injury research, which seeks to understand the mechanisms of injury and tolerances of the body to impact. Cur-

rently, research is focused on furthering our understanding of the mechanical basis of serious injuries to the head, neck, chest, abdomen, pelvis and extremities, as well as internal organs. Research efforts are also underway to study pediatric injury mechanisms, especially brain and neck injury, since children differ greatly from adults not only in size, but also in anatomical structure and material properties

Knowledge of the forces and motions on the human body from impact injury research is also used to both improve the current crash test dummies and to develop the next

generation of dummies. The purpose of these crash test dummies is



to measure the forces and motions a human would be subjected to in an automotive crash and, using injury criteria, provide an estimate of the severity and extent of injury. For instance, both NHTSA's current regulation dummy, the Hybrid III, and NHTSA's advanced frontal dummy, known as the THOR (Test Device for Human Occupant Restraints), possess instruments to measure the deflection of the chest which occurs as a result of the dummy's interaction with the seat belt, air bag or steering wheel during a crash. The current Hybrid III measures deflection at one location, the sternum, while the THOR measures deflections at four locations. These four measurements provide more information about the local pattern of loading and provide a

better estimate of chest injury severity. Thus when the THOR design is complete, automotive and safety engineers will be able to design more efficient and effective safety systems.

The reach of the NTBRC's research efforts spreads beyond the borders of the automotive safety community in the United States. The Center, through its chairing of the Biomechanics Working Group of the International Harmonized Research Activities (IHRA), is leading world-wide efforts to combine and coordinate biomechanical research to eliminate duplication and maximize output. The full benefits of the Center's concept, in terms of collaboration with others, are just beginning. Some cooperative biomechanics is underway, and discussion regarding other potential collaborations are progressing.

For example, The NTBRC is collaborating with other modes within DOT, such as the Federal Aviation Administration, through its Civil Aeromedical Laboratory programs, to evaluate and improve the safety of aircraft. The Federal Highway Administration (FHWA), through its cooperation with NHTSA, is currently using biomechanics to improve the

safety of roadside hardware. In addition, the U.S. Army's Walter Reed Institute of Research and NHTSA have begun a collaboration to study head injury biomechanics. The Consumer Product Safety Commission has expressed interest in collaborating on studies of head and chest injuries in children and the Department of Justice, National Institute

of Justice has also expressed interest in sharing resources for the development of blunt injury criteria to evaluate some types of law enforcement equipment.

Biomechanics has been one of the cornerstones of NHTSA's motor vehicle safety program for nearly 30 years. This science-based endeavor is one of the reasons NHTSA's regulatory process has been cited as a model of effective government regulatory decision-making. The depth and breadth of the NTBRC's expanding biomechanical research activities hold the promise of both continually improving our understanding of injury mechanics and enhancing our ability to effectively and efficiently apply this knowledge to saving lives. ■

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QUOTE OF THE MONTH

“It is neither wealth nor splendor;
but tranquility and occupation
which give happiness.”

—Thomas Jefferson