SCHOOL BUS PASSENGER PROTECTION

Materials furnished by:
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TAPT Statement on School Bus Passenger Protection

The Texas Association for Pupil Transportation promotes safe and efficient pupil transportation operations for public school districts in Texas. The association has always depended upon and recommended to the Texas districts, the yellow school bus, to provide a safe, secure and efficient transportation to the state's children.

Current Texas statistics furnished by the Texas Department of Public Safety indicate that there are 35,356 school buses that travel 397.4 million miles to transport 1.4 million students home to school daily. While every fatality and injury is tragic, the statistical information reveals that since 1990 there have been minimal fatalities and injuries to students while riding on school buses that were involved in a crash.

The National Highway Traffic Safety Administration (NHTSA), the federal agency that makes recommendations for safety equipment on school buses, considers the school bus the safest form of ground transportation in America. This is due in large part to the current passenger crash protection system called "compartmentalization" which relates to the interior design of the high back, well-padded, strongly anchored, evenly spaced seats to help protect passengers. We depend upon NHTSA as the regulatory body to make recommendations for additional equipment that would improve upon the safety of the school bus. In 2002, NHTSA reported to Congress that lap belts alone are not a viable form of passenger crash protection in large school buses. They also indicated that the use of combination lap/shoulder belts could provide some benefit and that the "potential exists for reducing the average passenger fatalities in frontal crashes of school buses from two to one, assuming 100 percent use of the lap/shoulder belt system." However, the same report also stated that serious neck injury and perhaps abdominal injury could result when lap/shoulder belts are misused, since they then function like a lap belt.

It is apparent that NHTSA's estimate of the safety benefit that could derive from lap/shoulder belt technology was based upon two virtually impossible parameters – 100 per cent usage and no misuse. Also, NHTSA made a specific point in its report to Congress to note that if states and local school districts decide on their own to require lap/shoulder belt systems, they should be aware of "unintended consequences', including the possibility that the reduced capacity of individual school buses and the nation's school bus fleet as a whole could result in more children being killed or injured when using alternative forms of transportation to get to and from school.

TAPT will continue to recognize the current design for passenger crash protection to be the safest system until NHTSA recommends the implementation of a safety system that provides greater protection for our students. We agree with the statement made by the National Association for Pupil Transportation (NAPT), that "our organization will only

NATIONAL ASSOCIATION FOR PUPIL TRANSPORTATION

January 31, 2007

The Honorable Nicole Nason
Administrator
National Highway Traffic Safety Administration
400 7th St., SW
Washington, DC 20590

Dear Administrator Nason:

The purpose of this letter is to request that the National Highway Traffic Safety Administration (NHTSA) expeditiously initiate the rulemaking actions it discussed in its May 7, 2002, News Release announcing a Report to Congress on school bus passenger crash protection. A copy of that News Release is attached.

We know that NHTSA considers a yellow school bus the safest form of ground transportation in America. We also know that this is due in large part to the current passenger crash protection system called "compartmentalization" and other federal motor vehicle safety standards (FMVSS) that NHTSA has established. We believe, however, that it is vitally important to constantly reassess existing safety measures no matter how safe our children currently are on school buses.

NHTSA is the federal regulatory body that our organization and the vast majority of its membership looks to for clear guidance and definitive recommendations on school bus safety issues in general and passenger crash protection in particular. We believe that statements the agency made about the use of lap belts in its 2002 report to Congress are clear and unqualified – lap belts are not a viable form of passenger crash protection in large school buses. We therefore present and promote these views to our members. We are perplexed, however, by NHTSA's statements about lap/shoulder belt systems.

In our view, NHTSA's estimate of the safety benefit that could derive from lap/shoulder belt technology was based upon two virtually impossible parameters – 100 per cent usage and no misuse. Additionally, NHTSA made a specific point in its report to Congress to note that if states and local school districts decide on their own to require lap/shoulder belt systems, they should be aware of "unintended consequences", including the possibility that the reduced capacity of individual school buses and the nation's school bus fleet as a whole could result in more children being killed or injured when using alternative forms of transportation to get to and from school.

We interpret these statements to mean that the current system of passenger crash protection called compartmentalization, which has been required in all school buses since April 1, 1977, continues to be the best approach, providing excellent automatic protection in all but the most catastrophic circumstances where injuries and fatalities likely could not be avoided by any safety system. As a result, our organization will only support changes to compartmentalization when we are sure that those changes will not compromise student safety in any way.

1840 Western Avenue ■ Albany, NY ■ 12203 ■ www.napt.org
Toll Free: (800) 989-NAPT ■ Tel: (518) 452-3611 ■ Fax: (518) 218-0867
Michael J. Martin, Executive Director

Moreover, we believe modifications to the current system of school bus passenger crash protection should only occur when we can be sure beyond a reasonable doubt that those modifications will improve the safety of each and every child in a school bus.

NHTSA has been working for nearly 4 decades to increase belt use in traditional passenger motor vehicles. This leads to the common opinion that "if my car has seat belts so should my child's school bus", which is one of the reasons calls for seat belts in school buses make headlines after every serious crash. In these situations, we encourage you to join us in reminding parents and the news media that school buses and the family car are very different vehicles from a crashworthiness perspective and, therefore, do not necessarily utilize the same safety strategies.

We are also asking you to write a new chapter in pupil transportation by initiating the rulemakings discussed in the May 2002 News Release to determine whether there is an opportunity to make children even safer by upgrading FMVSS 222.

We hereby request that NHTSA, on a priority basis, start the rulemaking process to develop the next generation of FMVSS 222, "School Bus Passenger Seating and Crash Protection," with the goal of establishing a safety system that will definitively enhance the current passenger crash protection for all children that ride a school bus. We also request that NHTSA make an active effort afterwards to educate the American public about the importance of safe school bus transportation as a logical way to reduce deaths, injuries and economic losses resulting from motor vehicle crashes.

We are prepared to call upon the Congress in a separate communication to provide, if necessary and in the most expeditious timeframe possible, a mandate and complete funding for this work as well as any necessary changes substantiated by the research

We believe you can help us ensure that students riding in a school bus are as safe as humanly possible and ensure that the public is better informed about school passenger crash protection. We would be glad to meet with you at your earliest convenience to discuss this letter and any of its specific requests. We hope that NHTSA and NAPT can work together to make sure that school bus passenger crash protection remains a sharply focused national priority.

Sincerely,

Michael J. Martin

Michael J. Martin
Executive Director

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NATIONAL ASSOCIATION FOR PUPIL TRANSPORTATION

Statements About School Bus Passenger Crash Protection

In April 2002, the National Highway Traffic Safety Administration (NHTSA) of the United States Department of Transportation (US DOT) completed an extensive evaluation of school bus passenger crash protection and sent a report on its work to Congress. NHTSA is the federal regulatory body that NAPT and the vast majority of its membership looks to for clear guidance and definitive recommendations on school bus safety issues in general and passenger crash protection in particular.

NHTSA reported to Congress that requiring lap belts on large, new school buses would appear to have little, if any, benefit in reducing serious-to-fatal injuries in severe frontal crashes. NHTSA indicated, however, that any increased risks associated with the use of lap belts on small school buses are more than offset by preventing ejections because these buses weigh less, have different crash dynamics and are more prone to rollover than large buses. Since NHTSA's statements and recommendations about lap belts are clear and unqualified, we present and promote these views to our members.

NHTSA reported to Congress that in the current school bus configuration lap/shoulder belt systems, if used properly, could save one life a year. NHTSA qualified this estimate, however, by noting that it was generated from statistical data assuming 100 percent usage and no misuse. NHTSA also reported that serious neck and perhaps abdominal injury could result when lap/shoulder belts are misused.

NHTSA made a specific point in its report to Congress to note that if states and local school districts decide on their own to require lap/shoulder belt systems, they should be aware of "unintended consequences", including the possibility that the reduced capacity of individual school buses and the nation's school bus fleet as a whole could result in more children being killed or injured when using alternative forms of transportation to get to and from school. NHTSA also advised Congress that states and local school districts that decide to require lap/shoulder belt systems should ensure that no passengers are forced to find alternate means of transportation.

NAPT believes modifications to the current system of school bus passenger crash protection should only occur when we can be sure beyond a reasonable doubt that the modifications will improve the safety of each and every child in a school bus.

We interpret these statements to mean that the current system of passenger crash protection called compartmentalization, which has been required in all school buses since April 1, 1977, continues to be the best approach, providing excellent automatic protection in all but the most catastrophic circumstances where injuries and fatalities likely could not be avoided by any safety system. As a result, our organization will only support changes to compartmentalization when we are sure that those changes will not compromise student safety in any way. Moreover, we believe modifications to the current system of school bus passenger crash protection should only occur when we can be sure beyond a reasonable doubt that those modifications will improve the safety of each and every child in a school bus.

Because we believe that it is vitally important to constantly reassess existing safety measures no matter how safe our children currently are on school buses, NAPT calls upon NHTSA to reevaluate, on a priority basis, FMVSS 222, "School Bus Passenger Seating and Crash Protection," with the goal of establishing a safety system that will definitively enhance the current passenger crash protection for all children that ride a school bus.

NAPT also requests that NHTSA make an active effort afterwards to educate the American public about the importance of safe school bus transportation as a logical way to reduce deaths, injuries and economic losses resulting from motor vehicle crashes.

We also call upon the Congress to provide, if necessary and in the most expeditious timeframe possible, a mandate and complete funding for this work as well as any necessary changes substantiated by the research.

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Michael J. Martin, Executive Director

U.S. Department of Transportation
Office of Public Affairs
Washington, D.C.
www.dot.gov/affairs/briefing.htm

News

Tuesday, May 7, 2002
NHTSA 37-02

Contact: M.J. Fingland
Telephone: (202) 366-9550

NHTSA Sends School Bus Report to Congress

Noting that school bus transportation is one of the safest forms of transportation in the United States, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) today sent to Congress a new report assessing occupant protection in school buses.

Every year, the nation's 450,000 public school buses travel more than 4.3 billion miles to transport 23.5 million children to and from school and school-related activities, the agency said.

In comparison with other forms of transportation, the report shows that students are nearly eight times safer riding in a school bus than in cars. The fatality rate for school buses is 0.2 fatalities per 100 million vehicle miles traveled (VMT) compared to 1.5 fatalities per 100 million VMT for cars.

This safety record is a result of the Department of Transportation's requirements for compartmentalization on large school buses, and lap belts plus compartmentalization on small school buses. Compartmentalization is the name for the protective envelope created by strong, closely-spaced seats that have energy-absorbing high seat backs that protect occupants in the event of a crash.

The new NHTSA report concluded that requiring lap belts on large, new school buses would appear to have little, if any, benefit in reducing serious-to-fatal injuries in severe frontal crashes. In rare circumstances, tests indicate that in some severe frontal crashes there may be increased risk of serious neck injuries and possibly abdominal injury among young passengers wearing lap belts.

In small school buses, any increased risks associated with the use of lap belts are more than offset by preventing ejections. These buses weigh less, have different crash dynamics, and are more prone to rollover than large school buses.

The use of combination lap/shoulder belts, if used properly, could provide some benefit on both large and small school buses. Lap/shoulder belts can be misused if children put the shoulder portion behind them. NHTSA's testing showed that serious neck injury and perhaps abdominal injury could result when lap/shoulder belts are misused. Assuming 100 percent usage and no misuse, lap/shoulder belts could save one life a year.

Lap/shoulder belts also could reduce school bus capacity by up to 17 percent because of seat redesign, and add between $40 and $50 per seating position to the cost of a new vehicle. The most popular buses carry between 60 and 71 passengers. The total annual cost would be over $100 million.

Other considerations, such as increased capital costs, reduced seating capacities, and other unintended consequences associated with lap/shoulder belts could result in more children seeking alternative means of traveling to and from school. Given that school buses are the safest way to and from school, even the smallest reduction in the number of bus riders could result in more children being killed or injured when using alternative forms of transportation. In this context, NHTSA recommended that, if states and local school districts decide to require lap/shoulder belts on school buses, they should ensure that no passengers are forced to find alternate means of transportation.

Some states and local school districts have voluntarily installed lap belts in their large school buses. NHTSA continues to recommend that, if states or local school districts require seat belts on school buses, they should ensure that passengers wear them correctly. States and local school districts considering purchasing seat belts for large school buses should be aware of the results of this new NHTSA research report.

Over the past 11 years, school buses annually have averaged about 26,000 crashes resulting in 10 deaths – 25 percent were drivers; 75 percent were passengers. Frontal crashes account for about two passenger deaths each year.

Meanwhile, NHTSA is continuing its research program, focusing on side impact protection, working with university-based researchers to further study school bus crashworthiness.

The four-year research effort by NHTSA has pinpointed other improvements that could be made to improve the safety of school buses. The agency is considering the following changes to existing federal safety regulations:

- Increase seat back height from 20 inches to 24 inches to reduce the potential for passenger override in the event of a crash.
- Require buses under 10,000 pounds to have lap/shoulder restraints. Currently, passenger seats on these buses must be equipped with lap belts only. The agency also will consider seat redesign so the lap/shoulder belts fit correctly for all passengers aged six through adult.
- Develop standardized test procedures for voluntarily installed lap/shoulder belts.

A copy of the full report can be viewed on the agency web site:
http://www-nrd.nhtsa.dot.gov/departments/nrd-11/Crashworthiness.html

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Jim Norman

From: John Ralph [jralph@alvinisd.net]

Sent: Thursday, March 29, 2007 3:58 PM

To: J. Ward; D. Davenport; Jaime Gallego; Jaime Gallego; Lee Iredale; Aaron Hobbs; Don Davenport; Fili Bonilla; Jim Norman; Jolene Hawkins; Kirk Self; Mike Cano; Mike Williams; Rhonda Davis; Pam McCurdy; J Norman

Cc: Christina Becker; Jay Rudolph; Reuben Passmore; Randy Boatman; Charley Kennington

Subject: NHTSA Remarks Re Scol Buses/Seat Belts

There is mention at the bottom of this article by the NHTSA Administrator to apparently take public input re seat belts on school buses...

U.S. to require anti-rollover technology for new vehicles

By KEN THOMAS
Associated Press

TOOL

WASHINGTON - The government plans to issue requirements next month that new vehicles include anti-rollover technology, officials said today.

Nicole Nason, administrator of the National Highway Traffic Safety Administration, told a congressional budget panel that "electronic stability control" technology would be mandated on all new passenger vehicles by 2011.

NHTSA estimates the technology could save from 5,000 to 9,600 lives a year once it is fully deployed in the vehicle fleet, which would take more than a decade after the rules go into effect.

Anti-rollover technologies have been cited as one way to reduce the more than 43,000 traffic fatalities in the U.S. annually. Rollover accidents account for one-third of all fatalities, even though only 3 percent of vehicle crashes are rollovers.

"Crash avoidance technologies like ESC are just the beginning of what we hope is a new era in highway safety, where many crashes and the pain and suffering from those crashes are prevented outright," Nason said.

Electronic stability control senses when a driver may lose control of the vehicle and automatically applies brakes to individual wheels to help make it stable and avoid a rollover.

Many vehicles, including sport utility vehicles, already have the technology, and several automakers have already announced plans to include the technology in the future.

Some safety groups said the proposed rule, first announced last year, will not deploy the technology into the fleet fast enough and does not require the most stringent performance standards.

Advocates for Highway and Auto Safety, an organization supported by consumer, health and safety groups and insurance companies, wrote in November that NHTSA had proposed a "minimal standard" for stability control that accommodated all existing ESC systems while taking into account

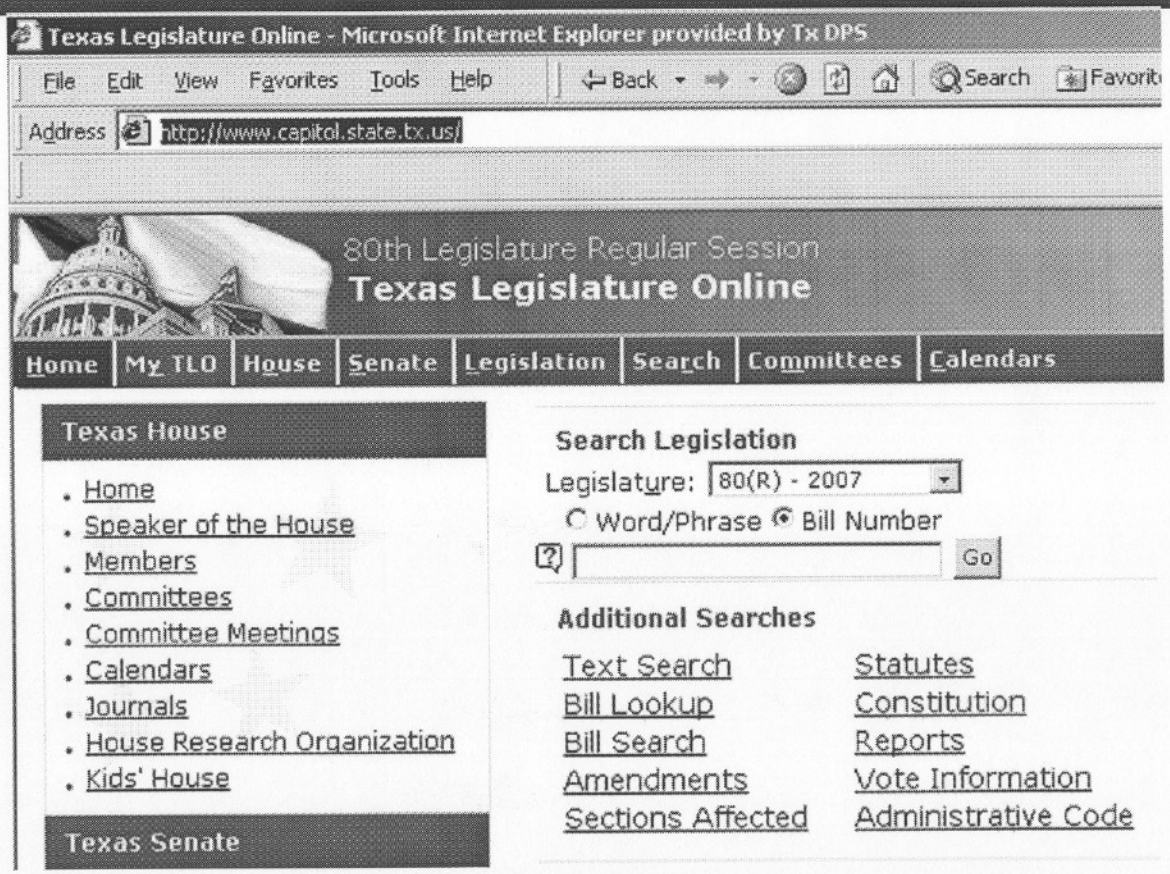
higher safety benefits from superior ESC systems to reach its estimated reduction of deaths and injuries.

But Ronald Medford, NHTSA's senior associate administrator, said today the technology is continuing to improve and the number of lives saved could be better than projections indicate.

Separately, Nason said the agency was looking much more seriously at requiring seat belts on commercial buses and planned to seek comments on the issue. Five Ohio college baseball players were killed in a March 2 bus crash in Atlanta, along with the driver and his wife.

For school buses, Nason said she planned to hold an event in July to receive input from school district administrators, drivers and others on whether to require seat belts.

TEXAS LEGISLATURE ONLINE



- http://www.capitol.state.tx.us/

SB 118 & HB 229 LAP/SHOULDER BELTS NEW SCHOOL BUSES

- REQUIRES ALL NEW SCHOOL BUSES ACQUIRED AFTER SEPTEMBER 1, 2007 TO HAVE LAP/SHOULDER BELTS

HB 323 LAP/SHOULDER BELTS ON SCHOOL BUSES

- REQUIRES ALL NEW SCHOOL BUSES ACQUIRED AFTER SEPTEMBER 1, 2008 TO HAVE LAP/SHOULDER BELTS
- REQUIRES ALL SCHOOL BUSES TO HAVE LAP/SHOULDER BELTS BY SEPTEMBER 1, 2017

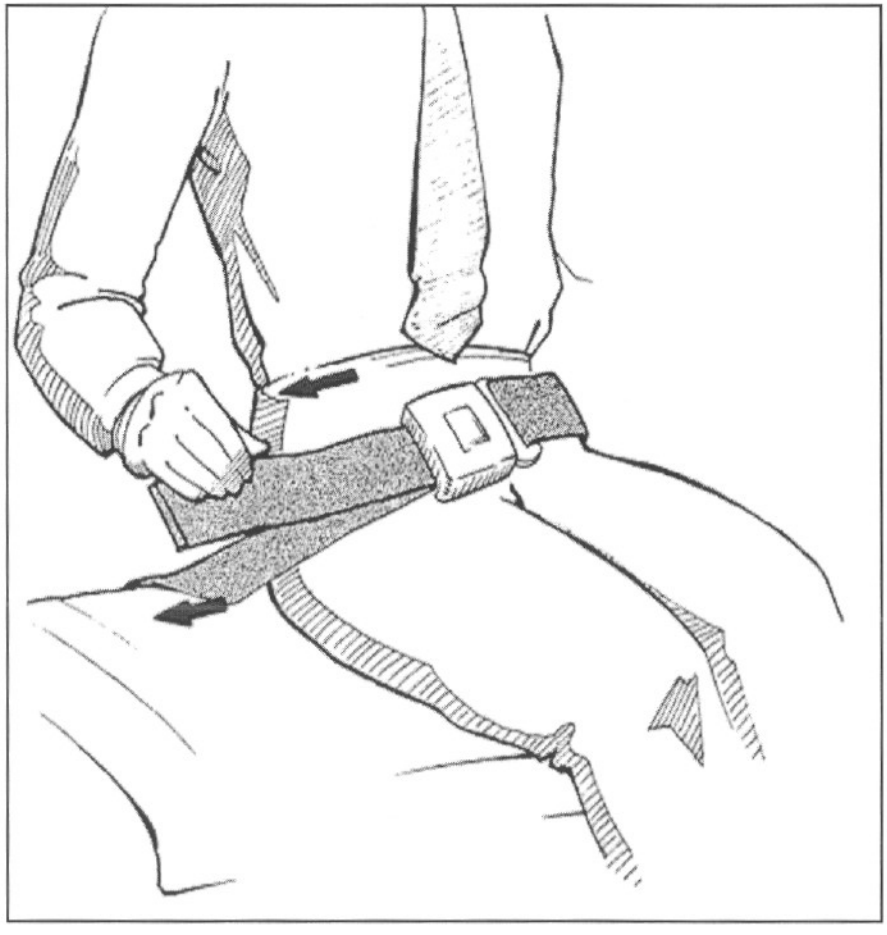
SB 148 FUNDING FOR SAFETY OR LAP BELTS

- A SCHOOL DISTRICT SHALL CONSIDER (MAY ACCEPT OR DECLINE) AN OFFER MADE TO DONATE SAFETY OR LAP BELTS OR MONEY FOR THE PURCHASE OF SAFETY OR LAP BELTS FOR SCHOOL DISTRICT SCHOOL BUSES.
- BOARD MAY ACKNOWLEDGE DONATION BY DISPLAYING SIGN RECOGNIZING THE PERSON

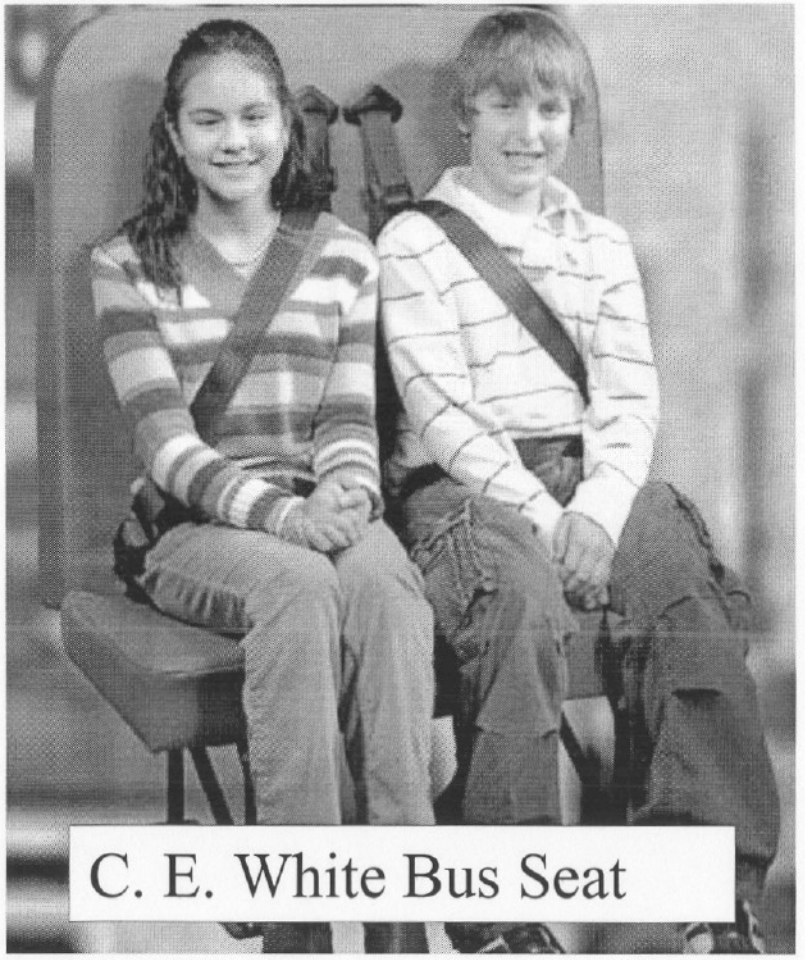
WHAT IS A SEAT BELT?

- MOST MOTOR VEHCILES HAVE A **LAP/SHOULDER BELT** which is a Type 2 seat belt assembly
- CURRENT SCHOOL BUS DESIGN IS A **LAP BELT** which is a Type 1 seat belt assembly for pelvic restraint

LAP BELT



LAP SHOULDER BELT



SCHOOL BUS SAFETY: CRASHWORTHINESS RESEARCH

- APRIL 2002
- NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
- A REPORT TO CONGRESS
  - http://www-nrd.nhtsa.dot.gov/departments/nrd-11/SchoolBus/SBReportFINAL.pdf

SCHOOL BUS SAFETY: CRASHWORTHINESS RESEARCH

- "LAP BELTS APPEAR TO HAVE LITTLE, IF ANY, BENEFIT IN REDUCING SERIOUS-TO-FATAL INJURIES IN SEVERE FRONTAL CRASHES"
- "LAP/SHOULDER BELTS COULD PROVIDE SOME BENEFIT UNLESS MISUSED"
  - "NHTSA TESTING SHOWED THAT SERIOUS NECK AND PERHAPS ABDOMINAL INJURIES COULD RESULT WHEN LAP/SHOULDER BELT ARE MISSUSED."

SCHOOL BUS SAFETY: CRASHWORTHINESS RESEARCH

- OTHER CONSIDERATIONS

- INCREASED CAPITAL COSTS
- REDUCED SEATING CAPACITY
- OTHER UNINTENDED CONSEQUENCES ASSOCIATED WITH LAP/SHOULDER BELTS COULD RESULT IN MORE CHILDREN SEEKING ALTERNATIVE MEANS OF TRAVELING TO AND FROM SCHOOL
  - EVEN THE SMALLEST REDUCTION IN THE NUMBER OF BUS RIDERS COULD RESULT IN MORE CHILDREN BEING KILLED OR INJURIED WHEN USING ALTERNATIVE FORMS OF TRANSPORTATION

THE RELATIVE RISKS OF SCHOOL TRAVEL: A NATIONAL PERSPECTIVE AND GUIDANCE FOR LOCAL COMMUNITY RISK ASSESSMENT

- NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMY OF SCIENCES
- JUNE 2002
  - http://www7.nationalacademies.org/ocga/testimony/Relative_Risks_of_School_Travel.asp
- EACH YEAR 800 SCHOOL-AGED CHILDREN ARE KILLED IN MOTOR VEHICLE CRASHES
  - 20 OR 2% ARE SCHOOL RELATED
    - 5 SCHOOL BUS PASSENGER
    - 15 PEDESTRIANS
  - 780 OR 98% ARE IN OTHER VEHICLES, PEDESTRIANS, BICYCLIST, OR MOTORCYCLISTS

THE RELATIVE RISKS OF SCHOOL TRAVEL: A NATIONAL PERSPECTIVE AND GUIDANCE FOR LOCAL COMMUNITY RISK ASSESSMENT

- NRC STUDY 1991 TO 1999 (NINE YEAR PERIOD
- 5 SCHOOL BUS PASSENGERS
- 15 PEDESTRIANS OUTSIDE SCHOOL BUSES
- 169 OCCUPANTS OF PASSENGER VEHICLES (ADULT DRIVER)
- 448 OCCUPANTS OF PASSENGER VEHICLES (TEENAGE DRIVER)
- 131 PEDESTRIANS
- 46 BICYCLISTS

FATALITIES OF PASSENGERS / STUDENTS

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

- NATIONAL STATISTICS
  - 450,000 SCHOOL BUSES
  - 4.3 BILLION MILES
  - 23.5 MILLION STUDENTS DAILY
  - 0.2 FATALITIES PER MILLION VEHICLES MILES

FATALITIES OF PASSENGERS / STUDENTS

- TEXAS DEPARTMENT OF PUBLIC SAFETY
  - TEXAS STATISTICS
    - 35,356 SCHOOL BUSES
    - 397.4 MILLION MILES
    - 1.4 MILLION STUDENTS DAILY (HOME TO SCHOOL)
    - 1 FATALITY ON A SCHOOL BUS IN 2000
    - 23 FATALITIES ON A SCHOOL BUS IN 1989
    - 2 FATALITIES ON A SCHOOL BUS IN 1988

INJURIES ON SCHOOL BUSES

- AMERICAN ACADEMY OF PEDIACTRICS NOVEMBER 2006 PRESS RELEASE
- 17,000 STUDENTS PER YEAR ARE TREATED IN EMERGENCY ROOMS AS A RESULT OF A SCHOOL BUS ACCIDENT
- 25% OR 4,250 GETTING ON AND OFF BUS
- 42% OR 7,140 STUDENTS (CRASH RELATED)
  - 97% OR 6,925 WERE TREATED & RELEASED
  - 214 STUDENTS REQUIRED MORE THAN EMERGENCY ROOM TREATMENT

REDUCTION OF SCHOOL BUS SEATING (LAP/SHOULDER BELTS)

- DESIGN CAPACITY
- 77 PASSENGER SCHOOL BUS COULD ONLY TRANSPORT 60 PASSENGERS
- 22% REDUCTION IN DESIGN CAPACITY
- TX 35,356 SCHOOL BUSES
- 20% OR 7,071 ADDITIONAL SCHOOL BUSES

REDUCTION OF SCHOOL BUS SEATING (LAP/SHOULDER BELTS)

- IN USE CAPACITY UNKNOWN
- TRANSPORTING 1.5 MILLION STUDENTS
- 20% OF 1.5 MILLION IS 300,000
- 300,000 DIVIDED BY 40 SCHOOL BUS SEATS IS 7,500 SCHOOL BUSES

ADDITIONAL COST FOR SEAT BELTS

- $6,000 PER SCHOOL BUS
- LAST YEAR 2,262 NEW SCHOOL BUSES
- 13.5 MILLION MORE FOR SAME 2,262 SCHOOL BUSES
  - NEW EPA REGULATIONS FOR 2007 SCHOOL BUS EMISSIONS WILL ADD $6,000 PER SCHOOL BUS STARTING IN JANUARY
- IF SEAT BELTS ARE ADDED TO EPA STANDARDS A SCHOOL BUS COULD COST $12,000 MORE IN 2007.

RESTRAINT SYSTEMS ON SCHOOL BUSES

5 STATES REQUIRE SEAT BELTS ON SCHOOL BUSES

- NEW JERSEY, NEW YORK, FLORIDA, LOUISIANA, CALIFORNIA
- NEW JERSEY, NEW YORK, AND FLORIDA REQUIRE LAP BELTS
  - NEW YORK RETRO FITTED ALL SCHOOL BUSES
  - FLORDIA REQUIRES USAGE
- LOUISIANA REQUIRES LAP/SHOULDER BELTS IF THEIR LEGISLATURE FUNDS THEM
  - AT THIS TIME THEY HAVE NO LAP/SHOULDER BELTS
- CALIFORNIA REQUIRES LAP/SHOULDER BELTS
  - CALIFORNIA REQUIRED THE DEPARTMENT OF EDUCATION TO REQUIRE USAGE

THINGS TO CONSIDER IF LAP/SHOULDER BELTS ARE REQUIRED

- LAP/SHOULDER BELT USAGE
  - WILL USAGE BE REQUIRED
  - MISUSAGE, TRAINING CLASS IN THE PROPER WAY TO WEAR THE RESTRAINT
  - IF SO WHAT HAPPENS IF A STUDENT IS NOT WEARING RESTRAINT (WHO IS LIABLE IN AN ACCIDENT)
  - WILL DRIVER BE HELD RESPONSIBLE FOR ENSURING STUDENTS ARE WEARING RESTRAINTS
  - SCHOOL BUS PARKING LOTS, MAINTENANCE SHOPS, NUMBER OF MECHANICS, SCHOOL BUS DRIVER PARKING FOR PERSONAL CARS

OTHER REFERENCE MATERIALS

- ENHANCING SCHOOL BUS SAFETY AND PUPIL TRANSPORTATION SAFETY
  - National Association for Pupil Transportation Services
  - http://www.nasdpts.org/documents/EnhancingSchoolBusPupilTransportationSafety.pdf
- AMERICAN SCHOOL BUS COUNCIL
  - http://www.americanschoolbuscouncil.org

CONTACT INFORMATION

- CHARLEY KENNINGTON
- TEXAS DEPARTMENT OF PUBLIC SAFETY
- SCHOOL BUS TRANSPORTATION
- 1617 EAST CREST DRIVE
- WACO, TX 76705-1598
- 254-759-7111 OFFICE
- 254-759-7238 FAX
- CHARLEY.KENNINGTON@TXDPS.STATE.TX.US EMAIL
- HTTP://WWW.TXDPS.STATE.TX.US/SCHOOLBUS

RECOMMENDATIONS FROM THE GOVERNOR'S STUDY GROUP ON SCHOOL BUS SEAT BELTS

February 28, 2007

TIME LINE

1. Governor Bob Riley Initiated Action
   - A. Four-student fatality crash in Huntsville, November 20, 2006
   - B. Seven-member study group appointed, December 14, 2006
   - C. Organizational meeting held, January 10, 2007

2. Study Group Held Hearings in Huntsville, February 5-6, 2007
   - A. Seventeen (17) "expert" witnesses made presentations
   - B. Nine (9) citizens made presentations

3. Study Group Met in Montgomery on February 14, 2007, 8:30—11:30 a.m.

4. Study Group Delivered Report to Governor Riley on February 28, 2007

INTRODUCTION

In Huntsville, Alabama, on Monday, November 20, 2006, at approximately 10:10 a.m., a 1990 Toyota Celica driven by a seventeen-year-old high school student made contact with a school bus, owned by Laidlaw Company, contractor for student transportation with the Huntsville City Board of Education, carrying 43 high school students. The driver of the bus who was not wearing his seat belt was ejected from the bus. The bus, out of control, rode a 32-inch high concrete rail approximately 117 feet before going over the rail and falling approximately 30 feet, nose first, onto the ground below. Tragically, four high school students were killed with 38 other passengers sustaining serious to minor injuries[1]. One student was not injured. Twenty-three of the students sent to the hospital for injuries were released from the hospital the same day.

Struck by the loss of life in Huntsville as well as the injuries to the surviving students, Governor Bob Riley asked seven people in a letter dated December 14, 2006, to serve in a study group capacity "to examine the issue of seat belts on school buses . . ." The charge from the Governor was to examine arguments for and against seat belts and data supporting both arguments, review the steps taken by other states, consider presentations from qualified experts in the field, and prepare a recommendation on what action, if any, needs to be taken to better protect school bus passengers in Alabama. Governor Riley asked for a report and recommendations by March 2, 2007.

The study group, members of which are shown below, met on January 10, February 5-6, and February 14, 2007.

- Dr. Mary Jane Caylor, Member, State Board of Education, District VIII
- The Honorable Richard Dorrough, Commissioner, Alabama Department of Children's Affairs
- Mr. Joe Lightsey, Director, Student Transportation, Alabama Department of Education
- Mr. Joe McInnes, Director, Alabama Department of Transportation
- Dr. Ann Roy Moore, Superintendent, Huntsville City Schools
- Dr. Joseph B. Morton (Chairman), State Superintendent of Education, Alabama Department of Education
- Colonel Chris Murphy, Director, Alabama Department of Public Safety

This is the report of the Governor's Study Group on School Bus Seat Belts.

[1]Statements by Debbie Hersman, Board Member, National Transportation Safety Board, in testimony on February 5, 2007, before the study group in public hearings held in Huntsville, Alabama.

ACKNOWLEDGEMENTS

The aid and assistance of Bryan Taylor, Taylor Nichols, and Margaret McKenzie of Governor Bob Riley's staff were invaluable in locating meeting sites, securing experts to share their expertise with the study group, and, in general, making sure that all members of the study group had anything necessary in order to meet the March 2, 2007, deadline set forth by Governor Riley.

An additional and most sincere acknowledgement goes to Mayor Loretta Spencer, City of Huntsville, for her graciousness and hospitality in hosting the study group for two days of hearings on February 5-6, 2007.

TERMINOLOGY

Seat belt	Seat belts in buses mean lap/shoulder restraints. While some action has been taken across the United States to install lap belts on school buses, the testimony of 17 expert witnesses and 9 citizens clearly indicated that no body of evidence exists that calls for the installation of lap belts on school buses.
Retrofitting	The act of installing seat belts on school buses not originally equipped with this type of equipment. The process involves altering the school bus body side walls and/or floor and adding seat belts to seats not originally equipped with seat belts or drilling holes in the bus body side walls and/or floor and fully replacing the seats.
Compartmentalization	The name for the protective envelope created by strong, closely spaced seats that have energy-absorbing high seat backs that protect occupants in the event of a crash. This is most effective in frontal crashes.
Less than 10,000 pounds gross vehicle weight rating (GVWR)	A small school bus that does not have the mass of large school buses. School buses in this weight classification must meet the requirements for school bus compartmentalization (FMVSS 208) and, at a minimum, be equipped with lap belts (FMVSS 209 and 210).
Greater than 10,000 pounds gross vehicle weight rating (GVWR)	A large school bus with a much greater mass than small school buses. School buses in this weight classification must meet compartmentalization requirements and may be equipped with seat belts.

THE CURRENT STATUS OF SCHOOL BUS SAFETY IN THE UNITED STATES

Bus Safety

Deborah Hersman, National Transportation Safety Board (NTSB) Member, indicated that school bus safety is a priority for her organization. She stated that NTSB can only launch five or six major investigations of accidents annually. The Huntsville school bus accident was one of the NTSB's investigations for 2006. Ms. Hersman indicated that the NTSB felt the National Highway Traffic Safety Administration (NHTSA) should act soon on a Notice for Proposed Rule Making that could lead to new performance standards for school buses. NHTSA has made no significant changes to its 1977 report that required compartmentalization.

On May 7, 2002, the NHTSA sent to Congress a report that contained results from extensive evaluations of school bus passenger crash protection. NHTSA is the federal regulatory agency that, generally speaking, America looks to for clear guidance and definitive recommendations on school bus safety issues in general, and passenger crash protection in particular. NHTSA reported to Congress that in the current school bus configuration lap/shoulder belt systems, if used 100 percent of the time and with no misuse, could save one life a year in accidents involving frontal crashes. NHTSA made a specific point in its report to Congress to note that if states and local school districts decide on their own to require lap/shoulder belt systems, they should be aware of "unintended consequences," including the possibility that the reduced capacity of individual school buses and the nation's school bus fleet as a whole could result in more children being killed or injured when using alternative forms of transportation to get to and from school. NHTSA also advised Congress that states and local school districts that decide to require lap/shoulder belt systems should ensure that no passengers are forced to find alternative means of transportation. Dr. Roger Saul, Director, Office of Crashworthiness Standards for NHTSA, verified this information. NHTSA has made no significant regulatory performance standards since its 1977 report, which required "compartmentalization" and generally stood behind that being a solid approach to passenger safety today. However, NHTSA, following four years of research, is considering the following: increasing seat back height from 20 inches to 24 inches and requiring buses less than 10,000 pounds to have lap/shoulder restraints. This may include seat redesigns so the lap/shoulder belts fit correctly for all passengers aged 6 to adult.

Dr. Saul indicated that NHTSA would announce a Notice of Proposed Rulemaking for school bus passenger safety in 2008. He indicated that public and industry input could last up to three years. He felt at the earliest a new performance standard could be enacted in 2010 or 2011 and that the regulations could provide up to three years for industry to make the transition and the performance standard be enacted nationwide. This could mean 2013 or 2014 would be the actual implementation of a new standard(s).

Regardless of the state, it is statistically verifiable that the transportation of students to and from school in a school bus is the safest form of transportation possible. School buses are safer than automobiles, trucks, motorcycles, bicycles, or walking. Every day in the United States 23.5 million students ride 450,000 school buses and travel 4.3 billion miles annually.

There are on average 20 deaths per year in America that are school bus related. Of those 20 deaths, 15 are pedestrian (outside the bus) and 5 are bus passengers. In Alabama, 7,000 regular route school buses travel over 58 million miles annually transporting more than 363,000 students.

Statistics for Alabama compiled by the Department of Public Safety indicate that between 1996 and 2006 (11 years), there were 1.4 million vehicle crashes in Alabama, with 4,201 of those crashes involving a school bus(es) and 669 of those crashes resulting in some type of injury. Of the 4,201 bus-related crashes, there were 21 people killed—15 in vehicles other than a bus and 6 in a bus (includes the 4 students in Huntsville). In addition to the 2006 Huntsville crash there were two other fatalities over the last 11 years. In Barbour County, in 1999, a teenage boy who was standing in the aisle of his school bus was ejected when the bus was hit in the side by a tractor trailer truck. In Tuscaloosa County, in 2000, a school bus driver was killed when the bus was impacted head on by logs from an overturned log truck.

Virtually, without failure, every speaker (expert) indicated that any state action (law) on requiring seat belts must include three things. If all three things are not included, then the status quo should be maintained. The three things are:

1. More buses, drivers, and support should be added so the number of student riders is the same. Any drop in student riders would affect any advantage that adding seat belts may yield since bus transportation is already the safest form of transportation in the U.S.
2. The bus driver should be given legal immunity for any misuse and/or non-use of seat belts and/or lap/shoulder belts by bus riders. This is not total immunity for all actions related to the job, i.e., failing a drug screening, but immunity from rider misuse and/or non-use of seat belts.
3. All students should receive instruction on the proper use of seat belts and/or lap/shoulder belts. This instruction must not only occur on the school bus, but in the classroom as well. Students should practice seat belt usage including how to buckle, release, and properly adjust.

Bus Design

Modern school buses are the safest school buses ever built. Today's buses are constructed using an integrated design strategy. Integrated school buses are designed and built strictly as school buses as compared to older buses that were simply medium duty trucks with a school bus body mounted on them. As a result of this new design strategy, modern school buses incorporate more safety features than ever before making them an even safer mode of student transportation. Alabama's school bus fleet is one of the safest fleets in the nation as a result of 97% of the buses being ten years old or newer. Newer buses also incorporate more safety technologies including safety features such as better warning systems for loading and unloading students, crossing control arms, LED lighting, higher back seats, more emergency exits, more seat padding, fire-resistant seat materials, diesel engines, automatic transmissions, better visibility, improved mirror systems, and much more.

Do No Harm

Since school buses are the safest form of transportation to transport students to and from school available today in the United States, research and expert testimony stressed that any state contemplating the requirement for school buses to have seat belts should only do so as long as it did not reduce the number of riders. The addition of seat belts to buses invariably reduces the seating capacity of the bus. The seat belts require additional room, and as a rule of thumb buses currently rated as 72-passenger capacity would be reduced to 59 if all students could fit in a space for an elementary student. A bus full of large high school students could be reduced from 72-passenger capacity to as few as 35. However, the national average on seat loss is 17 percent if lap/shoulder restraints are installed. Should any state, including Alabama, require that every bus have a seat with a seat belt for all students, that action could reduce the available seats on average 17 percent, but in some cases up to 50 percent. If additional buses were not purchased in order to accommodate the reduced seating capacity on the original number of buses then some students would have to find alternative methods of transportation. Traffic safety experts contend that an action such as this would be self-defeating due to the fact all other forms of transportation are more dangerous. Thus, the mere act of having all existing buses equipped with seat belts and not adding some buses to the existing fleet would cause more deaths and injuries than doing nothing.

Actions in Other States

1. New York has a law requiring lap belts, but does not require their use.
2. New Jersey has a law requiring lap belts and does require use.
3. Florida is implementing a law that requires lap belts and their use and is approximately 50% complete. Florida law requires belts only on newly purchased buses, so there is no retrofitting, and new bus purchases are staggered around availability of funds.
4. California has a law that requires lap/shoulder belts and their use, but it applies only to new buses. Only 3% of the buses in California currently comply with the state law that was enacted on July 1, 2005. Some school districts in California purchase used buses only so they never have to comply with the state law requiring seat belts on new buses.
5. Louisiana has a law that requires seat belts, but the law is not activated until funds are available. To date, funds have not been available.
6. North Carolina funded a pilot study that placed a total of 13 new buses in 11 different school systems representing a variety of transportation routes. Nine school systems received one bus each, and two school systems received two buses each. The cost of the bus was born by the school system and the additional cost of lap/shoulder-belted seats ($7,700 per bus) was paid through the pilot study. Seating capacities on buses was reduced as follows: 71 passenger buses were reduced to 59 if all were elementary students. If middle students could fit into elementary spaces on the new buses, the seating capacity was also 59. If they could not fit, the capacity was reduced from 59 to 35. High school student seating capacity was reduced from 71 to 35. It was revealed that elementary students had the greatest utilization of the seat belts. The middle and high school students did not use the seat belts. The study did indicate that girls used seat belts more than boys, that seat belts did reduce bullying and improve discipline,

and that safety instruction and student compliance were issues. There is no law in North Carolina regarding seat belts.

Recommendations

1. If nothing is changed from the current status of school bus safety requirements, rules, and regulations, school buses in Alabama will still be the single safest method available in which to transport students to and from school. With a state-funded system of transportation, Alabama is a national leader in equipping school systems with modern, up- to-date, and safe school buses. Alabama's system of fleet renewal that provides funding to local school systems so they may purchase new buses on a ten-year replacement cycle guarantees that no old, extremely high mileage, or out-of-date buses transport students. This coupled with personnel background checks and training requirements for bus drivers provides Alabama with one of the safest and most modern bus fleets in the nation. However, in the area of bus safety, and making sure Alabama is doing everything possible to save lives and prevent injuries, our state, like others in America, looks to the National Highway Traffic Safety Administration (NHTSA) to provide guidance and design performance standards that manufacturers must meet in building school buses. The last major set of design/performance standards issues by NHTSA was in 1977. NHTSA has been conducting crash tests and researching school bus safety in recent years. The current estimate is that initial standards may be released in 2008 with up to three years allowed for public and industry comment and then up to an additional three years for manufacturers to adjust to any new standards issues. This could mean that school systems could have no new buses equipped with any mandated safety devices until 2013-2014. The Governor's Study Group on School Bus Seat Belts feels this is an unacceptable length of time to wait and recommends that Governor Riley work with the Alabama Congressional Delegation in order to solicit their support so that a united effort can be made to urge NHTSA to act more quickly than currently is projected and, furthermore, that Governor Riley seek the support of this effort through the National Governors Association (NGA) so that everyone concerned with school bus safety can unite on urging NHTSA to act expeditiously with regard to school bus safety design/performance standards.

2. The members of the Governor's Study Group on School Bus Seat Belts recommend that until NHTSA releases new performance standards on school bus safety that a pilot study be conducted on the use of lap/shoulder seat belts on a limited number of new school buses in Alabama beginning in FY 2008. While a pilot may not yield information regarding improving fatality rates in school bus accidents (to do so would require a bus in the study to be involved in a serious accident and everyone prays for that not to happen), the study may yield some vital information on passenger injuries, bus discipline, and other safety improvements that are yet unknown. The recommendation includes that the pilot be funded by an appropriation from the Alabama Legislature to the Alabama Department of Education; that the pilot study include all additional costs associated with reducing seating capacity due to lap/shoulder seat belts being on new buses; that when a bus capacity is lowered in the pilot study that funds are made available to fund the purchase of an additional bus and additional drivers with salary so

no expense is borne by the local school system and no reduction in ridership occurs; and that instruction is given to students in the pilot study on the proper use of seat belts. It is further recommended that funds be provided by the Alabama Legislature to the Department of Education to engage an Alabama university and/or other specialists in the field of seat belt safety to design the pilot study, collect data regarding the pilot study, analyze data, and make an annual report to the Governor beginning September 2008 and every year thereafter that the pilot study is funded. The cost of the pilot study is estimated to be $750,000 for FY 2008. A budget for FY 2008, FY 2009, and FY 2010 is shown below.

FY 2008			
Upcharge on Buses with Seat Belts	10 @ $10,000		$100,000
Additional Buses due to Capacity Reduction	5 @ $66,600		$333,000
Additional Bus Drivers	5 @ $25,583		$127,915
Additional Bus Aides	5 @ $19,681		$98,405
Additional Fuel	5 @ $3,563		$17,815
Research and Administrative Costs			$72,865
		Total	**$750,000**

FY 2009			
Bus Drivers for Study	5 @ $26,863		$134,315
Bus Aides for Study	5 @ $20,666		$103,330
Fuel for Study	5 @ $3,742		$18,710
Research and Administrative Costs			$72,865
		Total	**$329,220**

FY 2010			
Bus Drivers for Study	5 @ $28,207		$141,035
Bus Aides for Study	5 @ $21,700		$108,500
Fuel for Study	5 @ $3,930		$19,650
Research and Administrative Costs			$72,865
		Total	**$342,050**
			Grand Total $1,421,270

Expert Witnesses

Stephan Moran, M.D., Chief of Trauma Surgery, Huntsville Hospital

Ms. Robin Leeds, Industry Specialist, National School Transportation Association

Jeff Tsai, Director, School Transportation Group, Institute for Transportation Research and Education, North Carolina State University

Martha Warren Bidez, Visiting Senior Scientist, Task Force for Child Survival and Development; Professor of Biomedical Engineering, University of Alabama at Birmingham

Deborah A. P. Hersman, Board Member, National Transportation Safety Board
Roger Saul, Ph.D., Director, Office of Crashworthiness Standards, National Highway Safety Administration

Derek Graham, President, National Association of State Directors of Pupil Transportation Services, Director of Pupil Transportation, North Carolina Department of Public Instruction

Charlie Hood, Pupil Transportation Director, Florida Department of Education

Alexandra Robinson, President, California Association of School Transportation Officials

John Davies, Director of School Transportation, Independence, Public Schools, Missouri Member, Missouri Governor's School Bus Safety Task Force

Mike James, Alabama Coordinator, National Child Passenger Safety Board

Mike Martin, Executive Director, National Association for Pupil Transportation

Charlie Vits, Bus Market Development Manager, IMMI, Inc. (Seat Manufacturer)

Charles Gauthier, Former Executive Director, National Association of State Directors of Pupil Transportation

Pippa Abston, M.D., Ph.D., University of Alabama School of Medicine, Pediatric Division, Assistant Professor, American Academy of Pediatrics

Purvis Johnson, President, Alabama School Transportation Association, Transportation Supervisor, Autauga County Schools

Robin Gilles, School Bus Driver, DeKalb County Schools

Mary Jo Chandler, School Bus Driver, DeKalb County Schools

Public Input

Rob Sherman, Radio Talk Show Host, Seat Belt Advocate

Lloyd Philpott, Philpo Design

Cathy Dewitt, Former Indiana Local Transportation Director

Doug Fees, Huntsville Local Attorney

Jackie Reid, Concerned Citizen

Bryan Bennett, Retired Pilot

Laurie McCauley, President-Elect, Alabama Parent Teacher Association